The extent to which weight-related public health initiatives reflect the values and principles of health promotion: a critical discourse analysis

Submitted in fulfilment of the requirements of the degree of Doctor of Philosophy

School of Nursing and Midwifery, Faculty of Science, Health, Education and Engineering University of the Sunshine Coast, Sippy Downs QLD Australia

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Abstract

Increases in the body weight of people in Australia and other countries around the world have been the subject of intense scientific, political and media attention in recent years. The placement of body weight at the focal point of discourse about health is referred to as the ‘weight-centred health paradigm’. This paradigm has become dominant in public health policy in the developed English speaking world but has been subjected to intense critique on philosophical, ethical and empirical grounds.

Many of the strategies used in weight-related public health initiatives are enacted through the discipline of health promotion. Health promotion is the process of working collaboratively with people to enhance the health of individuals, groups, communities and populations using a broad range of strategies. Health promotion is the spearhead of the new public health, and is explicitly based on a set of values and principles. Health promotion practice that is underpinned by the values and principles of best practice health promotion has been termed modern health promotion. Health promotion underpinned by values and principles not consistent with best practice has been termed traditional health promotion. Despite the major role of health promotion in implementing weight-related public health initiatives, these initiatives have received little critique in relation to the extent to which such initiatives reflect the values and principles of modern or best practice health promotion. This research project addressed that gap.

The research questions for the project were: what are the discourses within weight-related public health initiatives in Australia; and to what extent do weight-related public health initiatives in Australia reflect the values and principles of health promotion? The research epistemology was constructivist, the theoretical perspective was critical theory, and the theoretical framework was Critical Systems Heuristics. Critical discourse analysis was used to examine ten weight-related public health initiatives commissioned or produced by the Australian Government or parliament between 2003 and 2013. The health promotion values and principles continuum provided heuristic support for critical reflection.
From analysis of the claims, values, assumptions, power relationships and ideologies that were explicit, implicit, suppressed or hidden within the initiatives, I identified a broad range of discourses. The hegemonic but lexically questionable discourse of preventative health resulted in the almost complete invisibilisation of the discipline of health promotion. It also provided the foundation for alarmist, biomedical, reductionist discourses about body weight and health, with minimal attention to the social determinants of health, social justice and equity. Individuals were assumed to be naturally ignorant about the behavioural determinants of body weight but nonetheless to have ultimate responsibility for choosing these behaviours and thereby improving their health. Weight-related public health strategies adopted a mixed approach focusing on the whole population as well as the militarist targeting of negative, deficit-based interventions towards specific groups within the community. Discourse related to potential harm was minimal despite the significant potential for harm inherent in the public health initiatives. Discourse regarding evaluation of the initiatives focused on changes in behaviours and disease rates. The documents relied on the power, authority and status of experts to present uncontested discourses around body weight and public health responses to it.

On the basis of these discourses, I determined that the weight-related public health initiatives were reflective of two modern and seven traditional health promotion values and principles related to why the weight-related public health initiatives were needed, and two modern and 11 traditional health promotion values and principles related to what weight-related public health strategies were proposed and implemented in the weight-related public health initiatives. Overall, the weight-related public health initiatives were not consistent with the values and principles of health promotion best practice.

This project will contribute to the greater body of systemic change being implemented by social justice, fat acceptance and Health at Every Size advocates and activists, fat studies and critical weight studies scholars and others who are engaged in the enterprising task of shifting society from the weight-centred to a weight-neutral health paradigm, and thereby improving the health and wellbeing of people of all sizes.
Declaration of originality

The work contained in this thesis has not previously been submitted for a degree or diploma at any higher education institution. The thesis describes original research by the author since the official commencement date. To the best of my knowledge and belief, this thesis contains no material previously published or written by another person except where due reference is made.

Lily O’Hara
11 August 2014
Note to self: The generous, articulate, witty, free flowing acknowledgments composed in your head in the wee hours of the morning in that liminal space that is not quite sleep but not quite wakefulness slip away like mercury when it comes time to write them down on this page.

However, I will attempt to do justice to the incredible support that I have had over the time it has taken me to complete this research project and write this thesis.

First and foremost I have to thank my parents Vincent Frederick Wagstaff O’Hara and Catherine Millicent O’Hara. Unfortunately for me and for many others in the world too, both of my parents have now died and so I no longer get to revel in that pure unadulterated, unconditional love and support that they had for me and (almost) everything I ever wanted to do in life. However I am incredibly grateful for the life that they gave me and the lessons I learned from them about so many things; valuing simplicity, not being afraid to be complex, how to love your children utterly unconditionally, feminism (yes, from both), critical thinking, being adventurous (okay, that was only my Mum), how and when to stand firm and when to yield, that there’s a place for everything and everything has a place (Dad), the importance of family, and that I was capable of doing pretty much anything.

I have to thank my sisters Shay O’Hara-Smith, Jane O’Hara and Megan O’Hara Sullivan for always trying to sound interested in my research project, and really trying to understand just exactly what it involves, even after I see their eyes glaze over. They are funny and smart and wonderful friends and I cherish them dearly.

Margaret Barnes, my supervisor at USC, deserves enormous credit for her insistence suggestion that I limit my focus on two specific research questions. She was right and I thank her for that. She is also very thoughtful, wise and insightful and asks the best questions, and I’m extremely privileged to have had her supervising this research project. I am also grateful
to Desley Kassulke who provided the best support possible but unfortunately was not able to continue through until the end.

I want to thank with every fibre of my being, my colleague, partner, supporter and best friend in the entire world, Jane Taylor. We laugh together, cry together, learn together, share each other’s pain, delight in each other’s achievements, and spark off each other to create great things. Jane has given me more than any person could rightly expect and more, including access to the most beautiful space to live and write for a month, and I cannot find the words to express how grateful I am to her.

Finally, to the people that have been there for me day in day out, week in week out, year in year out…. My partner Paul and children Jonty, Allegra and Frederica all deserve big, shiny medals of honour for hanging in there with me throughout this process. They are all such valuable treasures and have helped me in so many ways to get to this point. They have endured endless weekends and holidays without me, and even willingly sacrificed some bedtime stories to help me get there in the end. They too have tried valiantly to get their heads around what I’m doing, but for that last time, no it’s not about fat chicks. Well, not exactly.
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<th>Meaning</th>
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</thead>
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<td>Value</td>
<td>Health promotion</td>
<td>An idea or concept that is considered as worthy, desirable or useful</td>
</tr>
<tr>
<td>Principle</td>
<td>Health promotion</td>
<td>Evidence of a value in action and describes a particular code of conduct or a rule of action</td>
</tr>
<tr>
<td>Boundary critique</td>
<td>Critical Systems Heuristics</td>
<td>Identifying and critiquing the prior boundary judgements or normative content of the system</td>
</tr>
<tr>
<td>Boundary judgements</td>
<td>Critical Systems Heuristics</td>
<td>Multiple underlying values, claims and assumptions inherent in complex systems, and the merit or value attributed to different claims with the system</td>
</tr>
<tr>
<td>Reflective practice</td>
<td>Critical Systems Heuristics</td>
<td>Self-critical reflection (inward looking reflection) or emancipatory reflection (outward looking reflection)</td>
</tr>
<tr>
<td>Heuristic</td>
<td>Critical Systems Heuristics</td>
<td>Tool to help with knowledge; derives from the Greek term <em>heurisko</em> which means to assist to discover</td>
</tr>
<tr>
<td>Critical competence</td>
<td>Critical Systems Heuristics</td>
<td>Competence of professionals and everyday people to support critical reflection and discourse</td>
</tr>
<tr>
<td>Claims-making</td>
<td>Discourse analysis: words</td>
<td>An attempt to persuasively define a situation in a particular way and to have that definition become widely accepted as a basis for ameliorative action</td>
</tr>
<tr>
<td>Word connotations</td>
<td>Discourse analysis: words</td>
<td>Choice of words that place the events into a particular framework of reference or discourse</td>
</tr>
<tr>
<td>Lexical choices</td>
<td>Discourse analysis: words</td>
<td>To indicate authority or expertise</td>
</tr>
<tr>
<td>Lexical absence</td>
<td>Discourse analysis: words</td>
<td>Absence of important terms, activities, elements or participants</td>
</tr>
<tr>
<td>Lexical suppression</td>
<td>Discourse analysis: words</td>
<td>Suppression of important terms</td>
</tr>
<tr>
<td>Overlexicalisation</td>
<td>Discourse analysis: words</td>
<td>Surfeit of repetitious, quasi-synonymous terms, over-persuasion, excessive description</td>
</tr>
<tr>
<td>Ideological squaring</td>
<td>Discourse analysis: words</td>
<td>Explicit build-up of opposing concepts</td>
</tr>
<tr>
<td>Genre</td>
<td>Discourse analysis: words</td>
<td>Style of text: formal, informal, scientific, conversational, fictional</td>
</tr>
<tr>
<td>Honourifics</td>
<td>Discourse analysis: words</td>
<td>Signal importance, specialisation or level of authority</td>
</tr>
<tr>
<td>Metaphor</td>
<td>Discourse analysis: words</td>
<td>Understand one concept in terms of another</td>
</tr>
<tr>
<td>Synecdoche</td>
<td>Discourse analysis: words</td>
<td>Part represents the whole or vice versa</td>
</tr>
<tr>
<td>Hyperbole</td>
<td>Discourse analysis: words</td>
<td>Exaggeration</td>
</tr>
<tr>
<td>Modal verbs or adverbs</td>
<td>Discourse analysis: words</td>
<td>Verbs or adverbs used to convey certainty, authority and power over others and over knowledge</td>
</tr>
<tr>
<td>Epistemic modality</td>
<td>Discourse analysis: words</td>
<td>Related to a judgement of the truth or certainty of a proposition</td>
</tr>
<tr>
<td>Deontic modality</td>
<td>Discourse analysis: words</td>
<td>Related to influencing people and events through compelling and instructing others</td>
</tr>
<tr>
<td>Dynamic modality</td>
<td>Discourse analysis: words</td>
<td>Related to the possibility or ability of an action or event</td>
</tr>
<tr>
<td>Intertextuality</td>
<td>Discourse analysis: words</td>
<td>References to other texts to highlight common agenda</td>
</tr>
</tbody>
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in order to heighten authoritativeness

<table>
<thead>
<tr>
<th>Term</th>
<th>Context</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presupposition</td>
<td>Discourse analysis: words</td>
<td>Used to imply meaning or present things as taken for granted and uncontested; can also enter into common usage and come to appear as self-evident, with their ideological origins backgrounded or completely forgotten</td>
</tr>
<tr>
<td>Hedging</td>
<td>Discourse analysis: words</td>
<td>Lack of specifics; can create ambiguity or sound more authoritative and persuasive</td>
</tr>
<tr>
<td>Gaze</td>
<td>Discourse analysis: visual</td>
<td>Gaze of subjects: where they are looking?</td>
</tr>
<tr>
<td>Poses</td>
<td>Discourse analysis: visual</td>
<td>Pose of subjects: take up space; perform for viewer or self-contained; emphasis on relaxation or intensity; suggest openness or closedness</td>
</tr>
<tr>
<td>Interaction</td>
<td>Discourse analysis: visual</td>
<td>Interaction between subjects: mirror each other or different poses; intimate, close proximity or indication of distance; touching or not</td>
</tr>
<tr>
<td>Distance</td>
<td>Discourse analysis: visual</td>
<td>Distance of shot: close, medium or long shot; signifies social relationships or intention; whose point of view is more relevant</td>
</tr>
<tr>
<td>Angle</td>
<td>Discourse analysis: visual</td>
<td>Angle of shot: front on, side on, from behind, from above, from below; Signals engagement</td>
</tr>
<tr>
<td>Individuals and</td>
<td>Discourse analysis: visual</td>
<td>Number of subjects: groups can homogenise; individual can suggest individualism or less threatening than group</td>
</tr>
<tr>
<td>groups</td>
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<tr>
<td>Generic versus</td>
<td>Discourse analysis: visual</td>
<td>Stereotypical representations or individual; cartoons create generic depictions</td>
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<td>specific depictions</td>
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<tr>
<td>Detail</td>
<td>Discourse analysis: visual</td>
<td>Articulation of detail: range from simplest line drawing to sharpest finely grained photograph</td>
</tr>
<tr>
<td>Background</td>
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</tr>
<tr>
<td>Depth</td>
<td>Discourse analysis: visual</td>
<td>Articulation of depth: absence of depth, simple overlapping, maximally deep</td>
</tr>
<tr>
<td>Light</td>
<td>Discourse analysis: visual</td>
<td>Articulation of light and shadow: zero through to maximal; light symbolises optimism</td>
</tr>
<tr>
<td>Tone</td>
<td>Discourse analysis: visual</td>
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</tr>
<tr>
<td>Modulation</td>
<td>Discourse analysis: visual</td>
<td>Degree of colour modulation: flat unmodulated colour through to fine nuances of colours; reduced modulation increases sense of simplicity and certainty; full modulation can make image appear gritty and revealing and realistic</td>
</tr>
<tr>
<td>Saturation</td>
<td>Discourse analysis: visual</td>
<td>Degree of colour saturation: from black and white to maximally saturated; saturated colours suggest emotional intensity; dilute colours suggest subtlety and moderation</td>
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</table>
Chapter 1  Introduction

1.0  Introduction

The purpose of this chapter is to introduce the research issue and provide an overview of the design of the research project. The chapter begins with a brief introduction to current public health approaches to body weight. The gaps in the knowledge base are highlighted. The health promotion disciplinary context for the study is described. The chapter then presents the research aim, objectives and questions, and an overview of the research design. The significance of the research is presented. The chapter concludes with a description of the structure of the thesis.

Firstly, a note about the language used in the thesis. In recent years, the health sector has increasingly contributed to the definition of the ‘ideal’ body established as a contemporary western ideal [1]. The message from health professionals is that pursuing the ‘ideal’ body is not just an aesthetic imperative; it is also a health imperative. Fat bodies are not simply regarded as undesirable to look at socially, they are labelled as medically compromised [2-4] and referred to as ‘overweight’ or ‘obese’. However these terms are contested and critics argue that such terms serve to medicalise body size and pathologise natural biological variation [2, 5]. Some critics advocate for the term ‘fat’ to be used as a neutral relative descriptor in the same way that ‘tall’ and ‘short’ are not absolute categories but descriptions of a person’s phenotype relative to others [6-8]. Using the term ‘fat’ also represents the political reclamation of a term that is almost universally regarded as negative, in order to defuse its potential for damage [5] and signify it as a political identity [9]. Some researchers have found that fat people strongly dislike the terms ‘fat’ and ‘obese’ and would rather be called ‘overweight’ [10]. Because fatness has become so stigmatised, other researchers have found that parents prefer health care providers to use the term ‘unhealthy weight’ when referring to their adolescent children [11]. Throughout this thesis the terms ‘overweight’ and ‘obese’ are used if they are the terms used by the study or program being discussed, otherwise the term ‘fat’ is used.
1.1 Research issue

Increases in the body weight of people in Australia and other countries around the world have been the subject of intense scientific, political and media attention in recent years [1, 12-15]. In Australia 60% of adults and one in four children are categorised as overweight or obese [16]. Rates of obesity are now commonly referred to as ‘epidemic’, and the consequences of obesity are regarded as being medically and psychologically problematic [13]. The dominant message from health authorities is that being overweight or obese is unhealthy, and that all overweight and obese people should lose weight by increasing their physical activity and healthy eating behaviours in order to improve their health. The placement of body weight at the focal point of discourse about health is referred to as the ‘weight-centred health paradigm’ [2, 17].

Discourses on health change over time and reflect the prevailing social, political and economic contexts in which they are produced and maintained [18]. In the past twenty years the discourse of the weight-centred health paradigm (WCHP) has attained almost complete dominance in the sphere of public health policy throughout the developed English speaking world. The national governments of Australia and many countries around the world have responded to what is perceived as an ‘epidemic of obesity’ with public health policies and programs explicitly focused on reducing and preventing obesity. Health promotion strategies have been developed by governments and other agencies to try and improve the behaviours deemed to be directly related to body weight. All of these policies and programs focus on increasing physical activity and healthy eating in order to prevent or reduce ‘excess’ body weight.

Weight-related public health initiatives are now being subjected to extensive critique based on ideological, ethical and empirical grounds. Many scholars have raised concerns about the stigmatising and harmful effects of the weight-centred health paradigm [19, 20], and in particular the inequitable distribution of such negative impacts on women, people who are poor, and people of colour [2]. As a result,
alternative, weight-neutral approaches to health and body weight have been developed. One such alternative is the Health at Every Size® (HAES®)\(^1\) approach. This approach moves the focus away from weight and towards health [7, 20-28]. The Health at Every Size approach supports actions that enhance the holistic health of all people, irrespective of their body size or weight. It does not contend that people are healthy at any size; instead the approach contends that people at any size can focus on improving their health by adopting behaviours that are not focused on body weight. This approach has evolved from what was initially called the non-diet movement [29].

Most weight-related public health policies and programs are enacted through the discipline of health promotion. Health promotion is the process of working collaboratively with people to enhance the health of individuals, groups, communities and populations using a broad range of strategies [30, 31]. Health promotion practitioners value melioristic goals. They believe it is good to be committed to making the world a better place through human effort; they are committed to ‘making a difference’ [32] (p. 131).

As a health promotion practitioner and academic for over 25 years, I too have melioristic goals, but have long felt uncomfortable about the dominance of the weight-centred health paradigm in public health policy and programs. I am particularly concerned about the harms done to people in the name of the WCHP, and about the harms that I may have inadvertently inflicted on people, both personally and professionally, as a result of my investment in the concept of the ‘ideal’ ‘healthy’ body.

\(^1\) Health at Every Size® and HAES® are registered service marks of the Association for Size Diversity and Health, acquired for the purpose of ensuring that these terms are only used in reference to health programs or approaches consistent with the Health at Every Size principles. For simplicity, the terms appear without the registered service mark in future references.
I am also concerned about the effectiveness of weight-centred health promotion policies and programs. I believe now that the time, energy and financial resources committed to fighting the war on fatness may be better spent addressing issues that are more critical to the health and wellbeing of people, such as poverty and injustice [33]. These concerns, developed over many years of personal and professional experience, have led me to question the role of my own discipline of health promotion in perpetuating the weight-centred health paradigm, and the potential dissonance between this paradigm and the values and principles that underpin health promotion practice.

Health promotion is the spearhead of the new public health [34], and is based on a loosely articulated set of values and principles [35]. A value is defined as an idea or concept that is regarded as worthy, desirable or useful [36]. Values are generally expressed as single terms and reflect what is important to people individually or collectively [37]. With respect to a discipline such as health promotion, values are concerned with desired outcomes or what is hoped to be achieved [36]. For example, equity is a health promotion value [30]. A principle is defined as a proposition that serves as the foundation for a system of belief or behaviour, or a rule or belief governing one’s behaviour [38]. A principle is expressed as an action and makes explicit what people do to realise the value. For example, the principle associated with the health promotion value of equity requires health promotion practitioners to prioritise working with people that are most marginalised [39].

Understanding the nature and role of health promotion values and principles is important because of their influence in shaping all aspects of practice, including the selection and framing of health priorities, selection of strategies to address priorities, how strategies are implemented, how and what results are evaluated, and the articulation of desired outcomes [36, 40-43]. The values and principles of health promotion have been articulated in health promotion documents and literature since the mid 1980s, most famously in the Ottawa Charter for Health Promotion [30]. Most recently, the Galway Consensus Conference Statement, which articulated the domains
of core competency, standards, and quality assurance for building global capacity in health promotion, included a list of core values underpinning health promotion [44]. Despite the presence of a number of lists of values and/or principles for health promotion practice generally, the values and principles operating at a program or initiative level are not always made explicit [37].

In recent years health promotion professionals have identified the need for a fuller explication and examination of the values and principles that guide health promotion practice [40, 42, 45]. According to Carter et al. [37] (p. 470):

> Detailed empirical study of health promotion practice is required to clarify the values and concepts entailed in health promotion; these will vary from situation to situation, and will need to be considered in relation to both evidence and ethics in those situations. The concepts relevant, for example, to an intervention in weight in Australia are likely to differ from those relevant to an intervention in smoking in China, housing in Brazil, or parenting in a disadvantaged community in the United States. Concepts and values are also likely to differ for national versus local levels of intervention. These differences can be identified only through empirical study, and we believe that more health promotion research should be oriented toward this end.

There have also been calls for health promotion practitioners to critically reflect inwards, and examine their own values and principles and how they influence and impact on their work, as well as the values and principles operating implicitly or explicitly within the discipline as a whole and the projects or initiatives they are involved with [32, 46-48]. McPhail-Bell et al. argue that ‘reflexive practice is crucial to health promotion, which ought to include preparedness for health promotion to more critically acknowledge its own history’ (p. 22).

Despite the major role of health promotion in enacting weight-related public health policies and programs, these initiatives have received little critique in relation to the values and principles of health promotion. This research project addressed that gap.
1.2 Discipline context of the research

This research project was conducted within the disciplinary context of health promotion. The study also sits within the fields of public health, public health ethics, critical weight studies and fat studies. Health promotion is a critical applied discipline aimed at addressing complex health issues in order to improve the health of people. Health promotion practice involves working collaboratively with people to enhance the health of individuals, groups, communities and populations [30, 31]. Health promotion practitioners are expected to understand and respond to multiple interrelated determinants of health. This requires the ability to plan, implement, and evaluate health promotion programs that are complex and multifaceted.

Various attempts have been made to explore the nature of values that underpin current health promotion and the factors that impact on their translation into action-based principles. Some of the attempts to define and articulate health promotion best practice principles have used the discourse of health promotion ethics, with proposals for a health promotion code of ethics [41, 49], an ethical framework or agenda [48, 50-52] and exploration of ethics used in health promotion practice [32, 53, 54]. These various processes have attempted to define ethically relevant concepts and the dimensions along which they may vary [37].

In response to these calls for greater reflection, exploration and examination of the values and principles underpinning health promotion practice, the Health Promotion Journal of Australia ran a series of papers addressing these issues. The papers included a collaborative paper written by the members of the Editorial Advisory Committee of the Health Promotion Journal of Australia [42], and two papers by my colleague Jane Gregg and I [55, 56]. Our first paper proposed a conceptual framework drawn from the literature which articulated a range of values and principles (including ethics). Health promotion charters and statements list the values and principles of health promotion thereby implying that these are reflective of an ideal or best practice. However it is not always apparent from these lists what type of practice is not best practice. A number
of scholars have therefore distinguished between modern or best practice and
common, standard, conventional or traditional practice.

Robison and Carrier distinguished between ‘traditional’ and ‘modern’ health
promotion according to a set of values and principles [57]. Terry et al. [58]
differentiated ‘best practice’ in health promotion from what they termed ‘common
practice’ on the basis of nine ‘quality components’ of health promotion practice. The
health promotion values and principles continuum developed by my colleague and I
follows the lead of such scholars and adopts the terminology used by Robison and
Carrier [57] and others. Best practice or practice at the ‘ideal’ end of the continuum is
referred to in our paper as modern health promotion, and practice at the opposite end
of the spectrum is referred to as traditional health promotion.

The term traditional health promotion is drawn from the literature [57] and refers to
health promotion approaches underpinned by biomedical and behavioural models of
health and health improvement. The biomedical health model defines health as the
absence of disease and is concerned with improvements in physiological and
psychological disease states via medical intervention and management [39, 57]. The
behavioural health model defines health as the absence of behaviour-related disease
and is concerned with bringing about changes in people’s risk taking behaviours,
primarily through information and education strategies [39, 57].

The term modern health promotion was first used by the WHO in 2006 in reference to
the concepts and principles of the Ottawa Charter for Health Promotion as the
foundation of modern health promotion [59]. Modern health promotion is
underpinned by holistic, ecological, salutogenic and social justice models of health and
health improvement [57]. The holistic model of health defines health as physical,
social, mental, and spiritual dimensions of health and wellbeing [57]. The ecological
model of health acknowledges the multiple complex and inter-related determinants of
holistic health and wellbeing, including people, their behaviours, their environments,
and the connections between these factors [39, 57]. The salutogenic model of health
places emphasis on factors that create and support good health and wellbeing, in addition to disease prevention and behavioural risk factors [60-62]. The social justice model of health requires a focus on reducing health inequity and inequitable access to the determinants of health within and between populations through the active participation and empowerment of people [33, 63].

The dualistic categorisation of health promotion practice as modern (best practice) and traditional (standard practice) runs the risk of implying that a simple dichotomy exists. However, as with any form of practice, this would be a gross generalisation and oversimplification of the messy reality of practice. For this reason my colleague and I proposed a continuum of practice ranging from modern to traditional health promotion for each value and related principle. Health promotion practice is rarely fixed at either end of the continuum. The position on the continuum for each value and principle depends on the political and organisational context in which the health promotion activity takes place, and the personal values and principles of the practitioner [37]. In addition, the continuum is not meant to suggest that any health promotion activity will be completely modern OR traditional. Different aspects of the program or initiative may reflect modern and traditional health promotion values and principles to varying degrees, and the program overall will therefore mostly like be reflective of both modern AND traditional health promotion. The health promotion values and principles continuum is intended to assist practitioners reflect on their practice and determine where the various aspects of their practice – including the processes of defining health, assessing needs, and planning, implementing and evaluating health promotion initiatives – might fall on that continuum between modern and traditional modern health promotion [56].

The health promotion values and principles continuum includes three domains: philosophical values and principles; ethical values and principles; and technical values and principles. Philosophical health promotion values and principles encompass worldview, epistemology, health paradigm, scientific approach, motivation for health, assumptions about people, who to work with, the program basis, health promotion
strategies, and distribution of power. Ethical health promotion values and principles focus on participation in the change process, personal autonomy, beneficence, non-maleficence and the basis for practice. These ethical health promotion values and principles draw on the field of modern bioethics [64]. The philosophical and ethical health promotion values and principles can be translated into technical health promotion values and principles. Technical health promotion values and principles focus on the strategy approach, governance and decision-making, the role of the health promotion professional, and the selection of impact evaluation indicators.

The health promotion values and principles continuum provides a framework to assist practitioners to reflect on and critique the extent to which their current practice and the initiatives they are working are consistent with modern or traditional health promotion. It can be used in any context or with any issue. It is also a useful framework for people in the community to critique the health promotion initiatives they are involved with or impacted by.

The discipline of health promotion is responsible for enacting many of the strategies included in weight-related public health policies and programs. Although the weight-centred health paradigm in general, and some weight-related public health initiatives in particular have been subjected to critique on ideological, ethical and empirical grounds, critique from a health promotion perspective has been largely absent from the literature. Therefore this project sought to critique existing weight-related public health initiatives through the lens of health promotion values and principles.

1.3 Research design overview

The aim of this research project was to contribute to reorienting or changing public health responses to body weight towards health promotion best practice. The objectives of the project were to analyse the discourses within Australian weight-related public health initiatives, and to use the results of the discourse analysis to determine the extent to which these initiatives reflect the values and principles of health promotion.
To meet these aims and objectives, the project posed the following research questions:

1. What are the discourses within weight-related public health initiatives in Australia?

2. To what extent do weight-related public health initiatives in Australia reflect the values and principles of health promotion?

In this project I used the research design framework for rigorous research developed by Crotty [65]. Crotty’s design framework includes epistemology, theoretical perspective, theoretical framework, methodology and methods [65]. The epistemological position in this project was constructivist [65], the theoretical perspective was critical theory [65], and the theoretical framework was Critical Systems Heuristics [66, 67]. Critical discourse analysis [68] was the methodology used to examine weight-related public health reports, policies and programs from Australia and identify the discourses within them. The health promotion values and principles continuum [55] was the heuristic used for reflection on the discourses identified within the weight-related public health initiatives. Figure 1 presents an overview of the research design.
1.4 Significance of the research

This research aims to contribute to reorienting or changing public health responses to body weight. Based on current definitions of ‘healthy’ and ‘unhealthy’ body weight, the majority of adults and a significant proportion of children in Australia are categorised as unhealthy. As a result, ‘obesity prevention’ is high on the socio-political agenda and vast sums of money and other resources are being invested in both
problematising and trying to reduce the nation’s collective body weight. However, weight-related public health initiatives have been critiqued on ideological, ethical and empirical grounds. This study extends that critique from the perspective of the discipline of health promotion – the discipline through which most of the weight-related initiatives are enacted. The results of this analysis provide important insight into the extent to which Australian weight-related public health initiatives are reflective of the values and principles of health promotion best practice. The output from the study provides heuristic support to help build the critical competence of health promotion and public health practitioners, policy makers, researchers and people in the community to reflect on their roles in developing, enacting or being the subject of weight-related public health initiatives. Although only one part of the requirements for social change, building critical competence can nonetheless make an important contribution to enhancing the quality of health promotion practice, policy and research, and thereby contribute to reorienting or changing public health responses to body weight.

If public health responses to body weight were to be more reflective of modern or best practice health promotion, this would enhance the health, wellbeing and quality of life of the vast number of people who are currently labelled as ‘too fat’ or fearful of becoming ‘too fat’. It would also mean that precious public health resources would be reoriented towards initiatives that have a much greater chance of improving the physical, mental, social and spiritual health and wellbeing of people than current stigmatising, oppressive and inequitable weight-related public health initiatives.

1.5 Thesis structure

The thesis is organised into eight subsequent chapters. Chapter 2 reviews the literature related to three specific health promotion values that underpin the development of weight-related public health initiatives: evidence of need, evidence of effectiveness and evidence of potential harm. The chapter then reviews the literature related to way such evidence is portrayed in the popular media. The chapter then presents a paradigmatic analysis of body weight and weight-related public health
initiatives. Chapter 3 describes weight-related public health initiatives at the international level and the national level in Australia, and then reviews the literature critiquing weight-related initiatives from a public health and health promotion perspective. The gap in the research is identified. Chapter 4 presents the research design including the research aim, objectives and questions. The epistemology, theoretical perspective, theoretical framework, methodology, data collection and analysis methods, and ethical considerations are then presented. In chapters 5 to 8, I present the results with respect to the discourses analysed and the values and principles of health promotion. I then discuss these results in relation to the literature. In chapter 9, I discuss the interpretation of the results from the theoretical perspective of critical theory and using the theoretical framework of Critical Systems Heuristics. I then draw some final conclusions and make recommendations for practice and research as a result of the study.

1.6 Conclusion

The purpose of this chapter was to introduce the research issue and provide an overview of the design of the research project. Increases in the body weight of people in Australia and other countries around the world have been the subject of intense scientific, political and media attention in recent years. The placement of body weight at the focal point of discourse about health is referred to as the ‘weight-centred health paradigm’. This paradigm has become dominant in public health policy in the developed English speaking world but has been subjected to intense critique on empirical, ethical and philosophical grounds. Concerns have been raised about the stigmatising and harmful effects of the weight-centred health paradigm, and in particular the inequitable distribution of such negative impacts.

Many of the strategies used in weight-related public health initiatives are enacted through the discipline of health promotion. Various calls have been made for the full range of values and principles underpinning health promotion initiatives to be examined, made explicit and opened to discussion and review. Despite the major role of health promotion in implementing weight-related public health initiatives, these
initiatives have received little critique in relation to the extent to which they reflect the values and principles of modern or best practice health promotion. This research project addressed that gap. By critically examining weight-related public health initiatives in terms of the discourses within them and the contribution of such discourses to the enactment of health promotion values and principles, this project aimed to contribute to reorienting or changing public health responses to body weight towards health promotion best practice.
Chapter 2  Background to the development of weight-related public health initiatives

2.0  Introduction

Chapter 1 introduced the research project and the research issue of weight-related health paradigms and described the health promotion discipline context for the study. It provided an overview of the research aim and questions, the research design, and the significance the research project. Finally the structure of the thesis was explained.

This project was concerned with critically examining weight-related public health initiatives in terms of the discourses within them and the contribution of such discourses to the enactment of health promotion values and principles. Modern or best practice health promotion values the establishment of evidence of need for a health promotion or public health initiative, evidence of effectiveness of initiatives to address the determinants of that need, and consideration of potential harm arising from the framing of the issue or the initiatives designed to address the need [37, 39, 55, 57].

Evidence of need is derived largely from epidemiological studies about the prevalence of the issue and the consequences of the issue. Consequences relate to relationships between the issue and negative health outcomes, and the costs of such negative health outcomes. In this chapter the literature related to the evidence of need for weight-related public health initiatives is examined. This review concentrates specifically on the health consequences of having a body weight outside what is classified as a ‘normal’ body weight. A review of the literature regarding the economic costs of such a classification system, although important in the establishment of need,
was considered to be outside the bounds of this project as it relates to the specialist field of health economics.

Evidence of effectiveness is derived from public health and clinical studies on the impact of initiatives designed to address the determinants of the issue. Following the review of the evidence of need, the chapter reviews the evidence of determinants of people’s body weight, followed by the evidence of effectiveness of programs designed to address such determinants. This is followed by a review of the literature related to evidence of potential harm arising from the framing of overweight and obesity as problematic.

As the project takes a critical perspective on the issue, representations in the media of the evidence of need, effectiveness and potential harms associated with weight-related public health initiatives are reviewed. Finally, a paradigmatic analysis of the representation of such evidence is provided.

2.1 Body weight and health: evidence of need, effectiveness and potential harms of weight-related public health initiatives

2.1.1 Evidence of need for weight-related public health initiatives

Modern or best practice health promotion values the establishment of evidence of need for a health promotion or public health initiative. Evidence of need is derived largely from epidemiological studies about the issue’s prevalence and trends together with studies about the consequences of the issue. This section reviews the literature related to the prevalence of body weight categories described as overweight or obese, and trends over time. This is followed by the literature related to the relationship between such categories and life expectancy, morbidity and mortality.
2.1.1.1 Prevalence and trends in body weight

In Australia, 60% of adults are categorised as overweight or obese [16]. This statistic is based on the prevalence of people with a Body Mass Index (BMI) of 25 or more. BMI is a normative tool that represents body weight relative to height. BMI was developed in 1832 by the Belgian mathematician Adolphe Quetelet as part of his research on the weight of humans at different ages. In 1972 Keys et al. set out to synthesise and analyse the various attempts that had been made over the previous century to come up with the best index of body build relative to stature [69]. Relative changes in body weight needed to reflect proportional changes in the index; if weight increased by 10%, the index also needed to increase by 10% [69]. Of a range of indices that had been proposed to that time, the BMI was mathematically the best performing index for this purpose. Keys et al. explicitly stated that BMI was only suitable as an index of the relationship between body build and height, and was not suitable for purposes such as determining ‘ideal’ or ‘healthy’ weight [69].

Keys et al. were particularly critical of the use of the ‘ideal weights’ that had been published by the Metropolitan Life Insurance Company (MLIC) [69]. The ideal weights in these tables were the average weights for men and women insurance applicants of different heights with an average age of 25. The method of comparing people’s weight to these ideals was regarded as ‘scientifically indefensible’ by Keys et al., because as people age they put on weight, and therefore get further from the ideal weight of a 25 year old as defined by the MLIC. Keys and colleagues argued that if people are labelled as overweight according to their variation from this ideal, then this label represents a value judgement about gaining weight with age, not a scientific judgement about the validity and utility of a measure [69]. BMI was thus intended as a descriptive tool for analysing the distribution of BMI across the population [70] and not for comparing individuals with any arbitrary ‘ideal’.

However in 1997, the World Health Organisation adopted BMI as the most useful measure of obesity and created categories of the continuous variable labelled underweight, healthy weight, overweight and obese [71]. In this classification system,
which has been revised since its original publication, BMI under 18.5 is categorised as underweight (under the weight that is considered healthy), between 18.5 and 24.9 is categorised as healthy weight, between 25 and 29.9 is categorised as overweight (over the weight that is considered healthy), and a BMI 30 or over is labelled obese (a medical term meaning an excess of body fat that is harmful to the body) [71]. This is exactly the usage that Keys et al. argued was ‘scientifically indefensible’, because BMI also changes as people gain weight with age [69].

Nonetheless, the WHO BMI classification system has been used in a multitude of population surveys around the world [72-74]. The BMI classification system is now also used as a diagnostic metric for individuals, and has been incorporated into clinical guidelines for the assessment and treatment of obesity [75-78]. Changes in the prevalence of people classified as overweight and obese according to the WHO BMI categories have been used to establish evidence of need for weight-related public health initiatives.

The prevalence of people with a BMI classified as overweight or obese is reported to have increased rapidly throughout the world on a population wide basis [79, 80], and that everyone everywhere is at risk of becoming overweight or obese [2]. The use of such terms such as ‘global’, ‘epidemic’, ‘pandemic’ and ‘globesity’ have contributed to the notion that body weight is increasing exponentially and that these changes are sweeping through the populations of developed and developing countries alike [14, 81, 82]. These statements are based on statistical increases in the proportion of people in the overweight and obese BMI categories. For example, Ogden et al. report that in the United States of America (USA), in adults aged 20 years and over prevalence of obesity doubled between 1980 and 2002, and in children and adolescents aged 6 to 19 years, the prevalence of overweight tripled in the same time period [83].

The relativistic terms ‘doubled’ and ‘tripled’ serve to effectively dramatize these trends, despite the fact that the majority of people are only three to five kilograms heavier than they were a generation ago [79]. Furthermore these terms give the
impression that weight gain has occurred universally across the weight spectrum. However for people at the thinner end of the spectrum, there has been no average increase in body weight since the early 1990s, whilst for people in the middle of the spectrum, average weight has increased by two to three kilograms [84]. It is people at the very highest end of the weight spectrum that have seen the biggest increases in average weight of 11 to 13 kilograms. The effect of these average weight gains is that the bell curve for weight distribution in the population has shifted marginally to the right. Because of the positioning of the BMI cut off points for each category, this small shift to the right has resulted in a large number of people gaining enough weight to move them from just below the cut off points for overweight and obesity to just above the cut off points, thereby resulting in the ‘doubling’ of obesity rates [79]. These small increases in weight combined with the crude nature of the BMI categorisation system resulted in what appear to be major increases in obesity prevalence rates over time.

Even given the limitations of the BMI categorisation system, obesity prevalence rates appear to be levelling off. The prevalence of people in the obese category stabilised around the turn of the 21st Century in many parts of the world. A systematic review published in 2010 examined national trends in childhood, adolescent and adult obesity rates since 1999 [85]. A total of 52 studies from 25 countries were identified, making this the largest review of trends in body weight around the world. The trends in obesity prevalence were classified as increasing, decreasing, stabilised or levelling off. Stabilised meant that no changes had occurred in the study period, whilst levelling off meant that there was an initial increase followed by stabilization. Studies with high or very high quality evidence demonstrated that for children, obesity rates since 1999 have been stable in Sweden, England, The Netherlands, France, Greece, Australia, and the US, and have increased in China. For adolescents, obesity rates since 1999 have decreased in England, were stable in France and the USA, stable for girls and increased for boys in Denmark, have levelled off in Australia, and have increased in China. For adults, obesity rates since 1999 were stable in France, have levelled off in England, increased for young men (aged 17-20 years) in Sweden, Denmark and Austria, and
increased for 30 year old women in Denmark. Overall, the authors conclude, obesity rates for children, adolescents and adults appear to have stabilised in many countries.

A data-pooling study published in 2011 by Olds et al. examined data from over 500,000 children aged 2 to 19 years from nine countries (Australia, China, England, France, Netherlands, New Zealand, Sweden, Switzerland and USA) between 1995 and 2008 and found that that there was no overall change in the prevalence of overweight and obesity in that time [86]. The authors warn that,

> the experience of the inaccurate British forecasts [in which dire forecasts for the rates of overweight in 2 – 11-year-old girls in 2020 needed to be downgraded from 34% to 17%, and the rate of obesity in 12 – 19-year-old girls revised from 30% to 9%] should serve as a warning that projections should be treated with extreme caution [86] (p 355).

The results of these large scale prevalence trend studies are not consistent with the qualitative reporting of obesity trends. Recent reports in the United States of America (US) [87], United Kingdom (UK) [88], Canada [89], New Zealand [90] and Australia [91] have each claimed that their country is the fattest in the world or at imminent risk of becoming so. One obesity expert claimed that Australia ‘would win the gold medal in the world fat Olympics, if there was such a thing’ [91]. Rates of obesity are said to be ‘ballooning’ [92], ‘skyrocketing’[93], ‘soaring’[94], ‘increasing exponentially’ [95], and ‘engulfing the entire world’ [96]. The ‘obesity epidemic’ has been described as ‘an insidious creeping pandemic’ [96], a ‘future fat bomb’ [97, 98], ‘an international scourge’ [96], the most prevalent, fatal, chronic, relapsing disorder of the 21st century’ [99], ‘the terror within more dangerous than weapons of mass destruction, the magnitude of which will dwarf 9/11 or any other terrorist attempt’ [100], ‘a tsunami affecting all regions of the world’ [80], ‘as big a threat as global warming and bird flu’ [101], ‘a problem on the scale of climate change’ [102], ‘more serious than any epidemic of influenza or plague’ [103], ‘the worst health epidemic in world history’ [104], and ‘the single most important health challenge for public health in the 21st century’ [101]. There is undoubtedly an epidemic of alarmist language regarding
obesity, but this review of the prevalence and trends data suggests that such language is not reflective of the actual changes in body weight over time.

2.1.1.2 Consequences of body weight categories

The consequences of having a body weight categorised as overweight or obese are also used to establish the evidence of need for weight-related public health initiatives. The ‘obesity epidemic’ purportedly ‘threatens the foundations of our society as would a massive SARS outbreak’ [105], and threatens to ‘overwhelm every country’s health system and shorten the life span of future generations’ [96], and ‘bankrupt the US economy and the financial stability of the world’ [106]. People today are alleged to be ‘the most diseased group of people in the history of human civilisation’ [106]. The claim that the increasing rates of childhood obesity will result in the life expectancy of today’s children being lower than their parents is now commonplace in articles and discussions about childhood obesity [107]. In this section, the epidemiological literature regarding the relationship between body weight and life expectancy, mortality and morbidity is reviewed.

Life expectancy

Life expectancy is the primary health indicator used at the population level. Some anti-obesity researchers have claimed that life expectancy is reduced as a direct result of body weight higher than the normal weight BMI category [108-110]. Some studies have shown that life expectancy begins to fall as BMI progresses beyond 24.9 and continues in a linear direction downwards [110, 111]. At a population level however, life expectancy has continued to increase at the same time as average body weight has risen and the populations of western industrialised countries have aged. Anti-obesity researchers argue that the increases in life expectancy have been slowed or hampered by rising body weight, and as risk factors such as smoking continue to fall, the negative effect of high body weight on life expectancy will overtake the gains made by reduced rates of smoking, to eventually cause a levelling off or even decrease in life expectancy [110].
Claims about reduced life expectancy for people in the overweight or obese BMI categories are not supported by large epidemiological studies. For example, the largest epidemiological study ever conducted followed 1.8 million people over a 10 year follow-up period. The study demonstrated an inverted U shaped relationship between BMI and life expectancy, with the highest life expectancy in people with a BMI between 26 and 28 (in the overweight BMI category) and the lowest life expectancy in those with a BMI under 18 (in the underweight BMI category). Those with a BMI between 18 and 20 (in the healthy weight BMI category) had a lower life expectancy than those with a BMI between 34 and 36 (in the obese BMI category) [112].

**Mortality and morbidity**

As with life expectancy, some anti-obesity researchers have claimed that there is a linear relationship between BMI and mortality, whereby mortality increases beyond a BMI of 24.9 and continues in a linear direction upwards [110, 111]. However there is mixed evidence about the precise nature of the association between adiposity and all-cause mortality [113, 114]. Some studies show a clear relationship at the extremes of the BMI distribution only – a U shaped curve – but even among these studies, the threshold at which the risk of mortality increases significantly is not distinct. Studies of nationally representative populations in the USA [115] [116], Canada [117], and Japan [118] and Hispanic people in the USA [119] demonstrate a protective effect for the overweight BMI category (compared to healthy weight and underweight BMI categories), and no or minimal effect on all-cause mortality for the obesity class 1 BMI category (BMI 30-<35). A pooled analysis of 1.1 million persons from 19 cohorts in Asia showed different effects for cohorts comprising people from East Asia (Japanese, Chinese and Koreans) and cohorts comprising Indians and Bangladeshis [120]. After adjusting for socio-economic status and smoking history, for cohorts from East Asia, the relationship between BMI category and all-cause mortality followed a reverse J shaped curve, with the highest mortality in people with a low BMI (BMI≤20) and the lowest mortality for people with a BMI between 22.5 and 27.5, which includes part of the overweight BMI category. For cohorts comprising Indians and Bangladeshis, the highest all-cause mortality rates were for people with a low BMI (BMI≤20), whereas
there was no excess risk of mortality associated with any BMI category over 20, up to and including the highest BMI category of BMI >35-50 [120].

A number of studies using large representative samples have demonstrated a flattened U shaped relationship between adiposity and cancer mortality, with the highest rates of cancer mortality in people in the underweight and class 2 obesity (BMI 35-<40) BMI categories [121, 122]. As with all-cause mortality, the a BMI in the overweight category confers a protective effect compared to a BMI in the healthy weight category, even without adjustment for confounding factors such as physical activity, dieting and weight cycling [121, 122]. After adjusting for level of cardiorespiratory fitness, one study found no significant associations between cancer mortality and BMI, waist circumference or percentage body fat [123]. Cancer mortality was significantly higher in unfit men compared to fit men, across all BMI categories, waist circumference categories (<102 cm vs. ≥102 cm) and body fat categories (<25% vs. ≥25%) [123].

Controlling for factors such as cardiorespiratory fitness or physical activity attenuates all-cause mortality risk associated with BMI, waist circumference and percent body fat in healthy populations [124] and in populations with specific diseases such as diabetes [125]. Although some studies have demonstrated a positive association between BMI and cardiovascular disease (CVD) CVD mortality, others show no such association when confounding factors such as physical activity levels are controlled for. These studies demonstrate that active fat people have roughly half the CVD mortality rates of sedentary people in the healthy weight BMI category [126].

A systematic review addressing the relationship between fitness, physical activity, fatness and health outcomes found the majority of studies demonstrated that fitness or physical activity have equal or superior capacity to predict health outcomes [127]. The health outcomes examined included all-cause and CVD mortality, CVD and type 2 diabetes mellitus (T2DM) morbidity, and presence of CVD and T2DM risk factors. Nineteen of the 22 studies included in the systematic review showed superior or equal health outcome predictive capacity for physical fitness compared to fatness, and 18 of
the 33 studies showed superior or equal health outcome predictive capacity for physical activity compared to fatness. This systematic review suggests that fitness, and to a lesser extent physical activity, attenuates the relationship between fatness and all-cause mortality, CVD mortality and CVD [127].

There appears to be a stronger relationship between fatness and T2DM rates, and risk factors for CVD and T2DM, however potential confounding factors are not controlled for in the majority of studies that demonstrate these associations [128]. Criticisms about the crude nature of BMI and the BMI classification system have resulted in mortality studies using other indicators of fatness, such as waist circumference, percentage body fat, and metabolic syndrome. However, irrespective of the adiposity measure used, crude associations with CVD mortality are attenuated by physical activity or cardiorespiratory fitness [129-133]. Other positive and negative lifestyle factors are potential confounding factors in the relationship between adiposity and mortality, and must be considered in any analysis [128]. In addition to physical activity, positive lifestyle factors include being a non-smoker, consuming recommended levels of fruit and vegetables, and drinking alcohol in moderation. Negative lifestyle factors include weight cycling, unhealthy weight control behaviours such as skipping meals, smoking, purging, abuse of diuretics and laxatives, and use of weight loss products and medications.

Matheson et al. [134] examined the relationship between the number of positive lifestyle factors and all-cause mortality across BMI categories using data from the NHANES III survey. Participants with four healthy habits were assigned as the reference group. Hazard ratios for the risk of all-cause mortality increased with each reduction in the number of healthy habits, irrespective of BMI category. The all-cause mortality hazard ratio for participants across all BMI categories with zero healthy habits compared to participants with four healthy habits was 3.27 (95% Confidence Interval (CI) 2.36-4.54).
Given the apparent limitations of classifying risk using adiposity measures, the Edmonton Obesity Staging System (EOSS) was developed to distinguish between people in the obese BMI category deemed to be ‘at risk’ and needing intervention and those who do not [70]. The system classifies people in the obese BMI category into five categories based on their morbidity and health risk profile. The EOSS categories range from stage 0 to stage 4, with stages 0 and 1 representing an obese phenotype with no or relatively minor health problems not necessarily related to body weight. Stage 2 to 4 represent obese phenotypes associated with several clinical, mental and psychological aberrations, again not necessarily related to body weight [70]. Studies using the EOSS found that EOSS stages 0 and 1 were associated with lower risk for CVD mortality compared to the healthy weight BMI category [135, 136]. Factors significantly associated with EOSS stages 2 and 3 included lifetime weight lost, preferred body weight, lowest adult body weight, weight at age 21 years, weight cycling, dieting, inadequate fruit and vegetable consumption, and low cardiorespiratory fitness. Many of these factors alone are known to be health damaging, and may account for some or all of the increased mortality associated with these stages. However only fitness and fruit and vegetable consumption was controlled for in the mortality analyses. Further analysis controlling for factors such as lifetime weight lost, weight cycling and dieting may have elucidated the contribution that these factors made to the observed increased mortality risks.

Despite its clear potential for over classification, the EOSS appears to be a more sophisticated system of health classification than BMI or metabolic disorder because it identifies the fallacy of a linear relationship between body weight and mortality outcomes. Furthermore, the results from the Padwal et al. [135] study in particular demonstrate that for those people in the obese BMI category but who have no other major mental or physical health issues present (at least those that are included in the staging system), their mortality rates are no greater than those in the healthy weight BMI category. The major benefit of the EOSS over the BMI categorisation system is that it demonstrates that people in the obese category have varied health status, and
that it should be their individual health issues that receive attention, rather than their body weight.

**Obesity paradox**

In contrast to studies demonstrating a positive relationship between body weight and mortality, there is a growing body of literature demonstrating the existence of the so-called ‘obesity paradox’, whereby a BMI in the obesity category is actually protective against mortality and morbidity. Gaesser cites a list of conditions that are less common in people in the obese BMI category than in the healthy weight BMI category: lung, stomach, colon and oesophageal cancer, malignant melanoma, premenopausal breast cancer, chronic bronchitis, tuberculosis, mitral valve prolapse, anemia, type 1 diabetes, premature menopause, and osteoporosis [3, 128].

There are a range of cardiovascular conditions in which people in the obese BMI category have a more favourable mortality risk than people in the healthy weight BMI category including hypertension, heart failure [137, 138], percutaneous revascularization, coronary artery bypass graft surgery, treadmill referrals, peripheral arterial disease, echocardiography referrals, and co-morbid CVD and T2DM [139-145]. A pooled analysis of five longitudinal studies looking at mortality risk of people with incident T2DM showed that for people in the healthy weight BMI category compared to people in the overweight and obese BMI categories, after controlling for demographic characteristics, blood pressure, lipid levels, waist circumference and smoking status, the hazard ratio for total mortality was 2.08, for CVD mortality was 1.52, and for non-CVD mortality was 2.32 [146]. Other conditions for which people in the obese BMI category have reduced mortality risk compared to people in the healthy weight BMI category include being elderly, having end stage renal disease and dialysis, advanced cancer, chronic obstructive lung disease, rheumatoid arthritis or HIV/AIDS, undergoing lower extremity amputation or general surgery, and having high systemic concentrations of persistent organic pollutants [139-145]. The obesity paradox also exists for future morbidity. In a study of over 20,000 people with recent ischemic stroke, after adjusting for confounding factors, people in the overweight and obese
BMI categories had significantly lower risk of a major vascular event in the following two and a half years, compared to people in the healthy weight BMI category [147].

**Causality, correlation and confounding factors**

Obesity, and sometimes even overweight, are claimed to ‘cause’ or ‘lead to’ CVD, T2DM, some types of cancer and osteoarthritis [110]. For example, a paper on incident T2DM led with the statement: ‘A marked increase in the prevalence of overweight and obesity has contributed to a doubling in type 2 diabetes mellitus incidence over the past 3 decades’ [148] (p. 1150). As with mortality, many studies have demonstrated an association between these morbidities and body weight, though some have not [148]. For example, Neeland et al. conducted a prospective study of 732 people in the obese BMI category in the Dallas Heart Study who did not have CVD or T2DM at baseline, to determine factors related to incident T2DM. In 5207 person-years of follow-up, BMI was not associated with incident T2DM [148]. As with studies showing associations between fatness and mortality, studies that have shown associations between fatness and morbidities are also criticised for failing to control for potential confounding factors. Physical activity, fitness, weight cycling and diet history have all been demonstrated to be associated with adiposity, and are therefore confounding factors in any analyses of the relationship between adiposity and mortality or morbidity. A range of social factors such as poverty and income are also associated with adiposity [149, 150], and are therefore additional potential confounding factors in mortality and morbidity analyses.

A study in the USA demonstrated that poverty is significantly associated with T2DM rates, after controlling for age, body size, physical activity, diet, cigarette smoking, alcohol use and all factors combined [149]. A study in Great Britain demonstrated a significant association between childhood class and increased risk of insulin resistance in adulthood, irrespective of class in adulthood or BMI [150]. A study in Canada examined the relationship between T2DM and a range of biological, behavioural and socioeconomic determinants using cross sectional and longitudinal data [151]. As predicted, there was a strong inverse association between T2DM and income in both
data sets after controlling for education, physical activity and BMI. The Whitehall II Study of British civil servants demonstrated a strong inverse association between employment grade and the risk of metabolic syndrome [152]. In this study only 10% of metabolic syndrome was explained by traditional risk factors. The study’s authors proposed a biologically plausible role in chronic disease causation for stressors associated with social class and organisation. Part of this explanation involves chronic inflammation as a result of stress. Chronic inflammation has been demonstrated to be an important risk factor for the development of T2DM, independent of body weight [153]. Festa et al. demonstrated that higher levels of C-reactive protein (CRP), fibrinogen and plasminogen activator inhibitor-1 (PAI-1) are all significantly related to the development of T2DM [153].

The other issue challenging the claim that fatness causes T2DM relates to temporal precedence, or the order in which conditions appear. In order for fatness to cause T2DM, the presumed cause (fatness) must appear prior to the assumed effect (T2DM), however various studies have demonstrated that metabolic disturbances can be precursors to fat storage and weight gain. Insulin resistance at baseline is predictive of 10 year changes in girls’ body mass, after controlling for initial BMI [154]. In Pima Indian children in the US, insulin concentration at baseline strongly correlates with the rate of weight gain per year over 10 years in both boys and girls, after controlling for initial weight, change in height, age and sex [155]. In adults, insulin sensitivity after weight loss is strongly associated with subsequent weight gain [156]. For adults with two parents with T2DM, insulin sensitivity and insulin secretion at baseline both strongly predict weight gain over a 17 year follow up period, after controlling for initial body weight [157]. The effect on weight gain was strongest for those with high insulin sensitivity. Insulin concentration 30 minutes after an oral glucose tolerance test (insulin-30), as a proxy measure of insulin secretion, predicted changes in body weight and waist circumference over a six year follow up, but only in those consuming a low fat diet [158]. This finding suggests a novel interaction between the level of fat in the diet and insulin secretion as a predictor of weight gain.
**Misclassification**

In addition to the literature examined above on the so called ‘obesity paradox’, there is a growing body of evidence about the existence of people that are now labelled as ‘metabolically healthy obese’. Since 1947 [159], medical researchers and epidemiologists have been perplexed by a group of people considered to be obese but who do not exhibit any ‘metabolic aberrations’ [136] – a phenotype referred to as ‘intriguing’ by Ortega *et al.* [160]. Various studies with nationally representative and other samples estimate the proportion of metabolically healthy people in the obese BMI category ranges from 12.3% to 47.7%. Karelis *et al.* reported that 12.3% of their sample of 154 post-menopausal Canadian women in the obese BMI category were metabolically healthy [161]. In a study of 681 Italian men and women in the obese BMI category, 27.5% had ‘uncomplicated obesity’, meaning an absence of metabolic risk [162]. Shin *et al.* found that 18% of their sample of 129 Korean women in the overweight and obese BMI categories who were enrolled in a weight loss study were metabolically healthy at baseline [163]. Researchers from the New Jersey School of Osteopathic Medicine reported that 29.7% of 454 patients in the obese BMI category at the medical school were metabolically healthy [164]. Using the Edmonton Obesity Staging System, Kuk *et al.* found that 37.2% of participants in the obese BMI category in the Aerobics Center Longitudinal Study were in EOSS stages 0 and 1 (metabolically healthy) [136]. This is similar to the results of studies using nationally representative samples. In their analysis of the NHANES 1999-2004 dataset, Wildman *et al.* found that 31.7% of people in the obese BMI category were metabolically healthy, 51.3% of people in the overweight BMI category were metabolically healthy, and 76.5% of people in the healthy weight BMI category were metabolically healthy [165]. Kuk *et al.* examined data from NHANES III (1988-94) and found that 38.4% of people in the obese BMI category were metabolically healthy [166]. Shea *et al.* found that 47.7% of participants in the obese BMI category were metabolically healthy (defined as having zero or one cardiometabolic abnormality) [167]. In a study on young people in the overweight and obese BMI categories recruited for a series of laboratory studies in Canada, Senechal *et al.* found that 25% of participants has no cardiometabolic risk factors and a further 43% had one risk factor [168].
A study in Ireland [169] examined this issue in an older age group. Because there is no accepted standardised definition for ‘metabolically healthy’, the authors used five different sets of criteria for metabolic health. The proportion of people in the obese BMI category who were metabolically healthy ranged from 7% to 37% (depending on the definition of metabolically healthy used), and the proportion of people in the nonobese BMI categories who were metabolically unhealthy ranged from 22% to 87%; misclassification rates that were substantially higher than those for people in the obese BMI category. The overall misclassification rate ranged from 27% to 61%. At the very least, using the lowest bar or least stringent criteria for metabolic health, over a quarter of all people in this study would have been misclassified as unhealthy based on their BMI category, and at worst, over 60% of people would have been misclassified. The authors concluded that these findings are of public health and clinical significance in terms of identifying those at greatest cardiometabolic risk [169].

Extrapolating from the study by Wildman et al. [165], which used a nationally representative sample, I calculated that the false positive rate for BMI as a tool to detect metabolic health across the USA population was 51%, and the false negative rate was 18% [20]. A high false positive rate is problematic due to the psychological effect of a disease label and the burden and costs of repeated assessment, testing and potentially unnecessary treatment. A high false negative rate is problematic when the disease is asymptomatic, serious, progresses quickly and can be treated more effectively at early stages, or if the disease spreads easily from one person to another. Metabolic syndrome can be asymptomatic and serious, and thus the extremely high false negative rate (very low specificity) for the BMI test is problematic. By all measures the BMI is an extremely poor test to be used as a basis for public health policy and clinical interventions.

In summary, although having a body weight above the healthy weight BMI category is said to result in poorer life expectancy, mortality and morbidity, the evidence from the literature does not support this simplistic assertion.
2.1.2 Evidence of effectiveness of weight-related public health initiatives to address determinants of body weight

Modern or best practice health promotion values evidence of effectiveness of weight-related public health initiatives as a basis for practice. Before reviewing the evidence of effectiveness of public health initiatives addressing body weight, it is necessary to review the evidence related to the determinants of body weight. This enables a more thorough review of the effectiveness of weight-related public health initiatives to address such determinants.

2.1.2.1 Determinants of body weight

Physiological characteristics such as body weight result from complex interactions of genes, other biological factors, behaviours, life course experiences and exposure to biophysical and socioeconomic environments [56, 170, 171]. This section reviews the literature related to determinants of people’s body weight.

Whilst it may seem self-evident that what people eat and the amount they move are voluntary, conscious, and therefore manipulable decisions, there is a growing body of evidence suggesting that the balance between energy intake and energy output is largely controlled by a powerful unconscious biological system [26, 172]. This biological system regulates body mass by regulating the unconscious desire to eat and to move. It is possible for an individual to willfully manipulate this biological system to a certain degree and lose weight in the short term, but ultimately the system wins out and ensures that the body returns to homeostasis through increasing food intake and reducing unconscious movement. There are numerous mechanisms used by the body to make these subtle changes. For example, increases in food intake result in part from increases in the production of the hormone that signals hunger (ghrelin) and decreases in the production of the hormone that signals fullness (leptin) [26, 172].

The precise ways that the components in the biological system work together in any individual are strongly genetic, and therefore associations between dietary behaviours and adiposity are strongly attenuated by genetic factors [173]. Exploration of the
pathways between genetic factors, behaviours and adiposity has revealed multiple mechanisms at play. For example, the fat mass and obesity (FTO) gene, located on chromosome 16, has been consistently associated with adiposity. Recent studies have confirmed that the presence of the FTO gene is strongly associated with appetite and satiety \[174\], and with the number of eating episodes per day, after controlling for body weight \[175\]. The presence of other genes has been shown to be associated with more servings of dairy products, and different genes seem to either increase or decrease intake of proteins \[175\].

Genetics, environment and chance all contribute to the variation in body weight between individuals in any given population. The relative contribution of genetics to the variability in body weight in a population is referred to as heritability. Research on monozygotic twins, non-identical twins and siblings provides evidence for the heritability of body weight \[172, 176, 177\]. These studies show that between 70 and 80% of the variability in body weight can be attributed to genetic variation within the population. Body weight is therefore classified as up to 70 to 80% heritable.

Heritability does not refer to the contribution of genetics to the weight of an individual person, or the relative chance of being fat if one’s parents are fat. Heritability is high when genes contribute proportionately more to the variation of body weight within the population than the environment contributes. The overall heritability of body weight is second only to height, and higher than heart disease, diabetes and cancer, all of which are considered to have high levels of heritability \[172\].

Given the high heritability of body weight, there has been extensive research looking for the specific genes that contribute to body weight. Genetic contribution can arise from either specific locations of genetic sequences within a gene that make an individual more susceptible to higher body weight (referred to in the literature as ‘obesity susceptible loci’) or variant forms of whole genes associated with increased susceptibility (referred to as ‘obesity risk alleles’). In 2010 researchers examined the genetic makeup of almost 250,000 individuals and confirmed previous findings of 14 susceptibility loci and identified 18 new susceptibility loci associated with higher body
weight [178]. A 2012 meta-analysis of 14 studies of genes related to ‘common childhood obesity’ found strong evidence for two previously unknown obesity susceptible loci associated with children’s body weight, and some evidence for a further two susceptibility loci [179]. Not all adiposity genes are the same; there appears to be different genetic influences on BMI and waist circumference, with only a 60% overlap in genes associated with both [177].

Not surprisingly, the influence of genetics extends beyond susceptibility to higher body weight and fat accumulation to responses to attempted weight loss. The presence of some obesity risk alleles associated with ‘early onset obesity’ in children is strongly associated with reduced weight loss in children and adolescents from behavioral weight loss interventions [180]. The role of genes and genetic loci in influencing energy regulating behaviours, heritability and weight regulation is now well established.

In addition to the role of genes in heritability, genetic mutations have been demonstrated to lead to increased adiposity [176, 178, 181-185]. Associations between dietary behaviours and body weight or body fat are strongly attenuated by genetic factors [173], but few studies control for these factors. Some argue that the relatively small increases in average body weight and the slightly larger increases for those in the fattest groups have occurred due to the interaction between genetics and the environment [172].

Genes, genetic mutation and epigenetic changes only tell part of the story about the determinants of body weight. The Foresight Report in 2007 produced an extremely complex model with 108 factors contributing to increased body weight [186]. Despite the large number of identified factors, the map only included factors related to energy intake and expenditure. There are numerous other factors that have been demonstrated to contribute to increases in body weight.

Polycystic ovary syndrome (PCOS), which affects up to one in 15 women, is thought to result in increased body weight [187]. Medical conditions such as hypothyroidism,
Cushing’s syndrome and growth hormone deficiency are relatively rare causes of increased body weight [188]. Several rare genetic syndromes such as Prader-Willi syndrome, Bardet-Biedl syndrome, Cohen syndrome and MOMO syndrome are characterised by significant increases in body weight [188]. Certain pharmaceutical drugs have an increase in body weight as a side effect. These drugs include atypical anti-psychotic drugs, selective serotonin reuptake inhibitors, tricyclic antidepressants, thiazolidinedione anti-diabetic drugs, insulin, sulfonylureas, steroids, certain anticonvulsants (phenytoin and valproate), pizotifen, and some forms of hormonal contraception [188, 189].

Physiological factors related to the gut that increase body weight include deficiency in Toll-like receptor 5, (an immune system protein) [190], metabolic endotoxemia caused by bacterial lipopolysaccharide from Gram-negative intestinal microbiota, which leads to low grade chronic inflammation [191]. The composition of microbiota in the gut has been associated with body weight [190, 192-199] and changes to the microbiota resulting from exposure to antibiotics has been shown to lead to increases in body weight [200-202]. Various infectious agents have been implicated in weight gain, spawning the term ‘infectobesity’ [203]. Infection with helicobacter pylori [199, 204, 205], chlamydia pneumonia [204] and human adenovirus 36 [206, 207] are all associated with increased body weight and are proposed as causative agents in weight gain.

A significant body of work in recent years has demonstrated the effect on body weight of exposure to endocrine disrupting chemicals. Specific chemicals found to be associated with increases in body weight include bisphenol A (BPA) [208-212], diethylstilbestrol [208], tributyltin [208], perfluorooctanoate [213], dichlorodiphenyl dichloroethylene (DDE) [214-218], polychlorinated biphenyls (PCBs) [214, 215, 218], polychlorinated dibenzodioxins [214], polychlorinated dibenzofurans [214], mono-benzyl and mono-ethyl-hexyl phthalate [219, 220], and hexachlorobenzene [221]. A study of phthalate metabolites in children’s urine demonstrated strong dose response relationships between metabolite presence and
higher body weight and waist circumference in children [222]. Exposure to these chemicals is widespread as they are found in products such as paints, pesticides and plastics, including food and beverage containers. Numerous studies suggest that exposure to endocrine-disrupting chemicals in-utero may cause epigenetic changes or permanent physiological damage to the fetus, reducing the capacity to regulate body weight throughout life and therefore predisposing to later weight gain [210, 214, 216-218, 221].

Effects of exposure to endocrine disrupting chemicals in-utero are exacerbated by maternal smoking [215]. Most of these studies provide correlational evidence, however prospective studies using animal and cell culture models have provided strong evidence of the pathways through which these chemicals or processes might act to increase body weight in humans [189]. Other in-utero exposures have been associated with weight gain, including exposure to famine in-utero through true famine or maternal dieting [223], or over nutrition in-utero [224]. Parental factors that may contribute to increased body weight include maternal smoking [215, 225] and child feeding practices, particularly pressure to eat and concern for child’s weight [226].

Sleep duration and quality has been demonstrated to impact on body weight [227-229]. A recent review of the literature examined experimental, cross-sectional (single point in time) and prospective studies [230]. Experimental studies included in the review showed that short-term sleep restriction leads to impaired glucose metabolism, dysregulation of appetite and increased blood pressure. The cross-sectional studies reviewed demonstrated associations between sleeping less than six hours per night and increased body mass index, diabetes, and hypertension, but these types of studies cannot prove causality. Prospective studies have demonstrated a significant increase in risk of weight gain, and development of diabetes and hypertension in association with chronic inadequate sleep. Interestingly, too much sleep may also be problematic as some studies have shown an association between sleeping longer than eight hours a night and incidence of cardio metabolic disease [230].
Different types of stress have been shown to impact on body weight, including life stress [231, 232] and cumulative work stress or job strain [233]. Brunner et al. investigated the effect that stress at work had on the development of central adiposity over a 19 year period in over 10,000 participants in the Whitehall study [233]. In addition to having a large number of participants, the Whitehall study is important because the researchers controlled for socio-economic status, eating behaviours and physical inactivity. They were therefore able to look at the effect of job stress on body weight, independent of these factors. The researchers found that employees experiencing chronic work stress (which they defined as three or more episodes of stress) had a 50% increased risk of developing central adiposity compared with those without chronic work stress.

Paradoxically, one of the strongest predictors of weight gain is weight loss dieting, irrespective of actual body weight. Studies have demonstrated that the body weight that dieters are trying to reduce or avoid gaining is increased by the very behaviours used to do so. In other words, dieting is actually counterproductive to weight loss [234-238]. This issue is examined further in the later section on potential harms.

Despite the significant body of evidence of the role of genetics and a multitude of other factors in determining body weight, anti-obesity researchers and policy makers continue to argue that eating too much and moving too little are the primary causes of increased body weight. In more recent years, the anti-obesity gaze has shifted from the individual to the role of the environment in enabling weight gain [239]. This is less pronounced in the USA, where methodologically individualist models of health promotion still prevail [240]. So called ‘obesogenic’ environmental factors are most commonly described as those environmental factors that contribute to changes in nutrition and physical activity – referred to as the ‘Big Two’ by Keith et al. [241] – by making unhealthy behaviours the easy or default choice for people [242].

On the nutrition side, obesogenic environmental factors are purported to include: the heavy promotion of fast food, energy dense snacks and sweetened beverages; the
ready availability of these foods in schools; the low cost and large serving sizes of these foods; the density of fast food outlets in poor neighbourhoods; the high cost of fresh foods; the lack of time to prepare fresh meals; and the reduction in family meal time [82, 243, 244]. On the physical activity side, obesogenic environmental factors are purported to include: changes to the urban environment and perceptions of safety which have led to reduced use of active transport; increased car use; reduced outdoor play and increased indoor (sedentary) play and recreation; technological advancements which have resulted in reduced need for physical activity and increased opportunity for sedentary behaviours at home and at work; and reduced time dedicated to physical activity in schools [82].

Swinburn and Egger have used hypotheses generated by ecological studies to develop a model in which the concept of a runaway train is used to demonstrate the relationship between the obesogenic environment and a number of other factors that act as either brakes or accelerators (what they term ‘vicious cycles’) to contribute to the ‘obesity epidemic’ [242]. They claim that levelling out the obesogenic environment is critical to slowing down the momentum of the ‘runaway weight gain train’. The imagery employed in this model suggests that without such changes to the obesogenic environment, the train will continue to gather speed and the ‘obesity epidemic’ will continue to spread. The evidence provided above demonstrates that the runaway train may well have ground to a halt in many countries around the world as rates of obesity stabilise and in some cases even start to decline.

The arguments for the ‘Big Two’ obesogenic environments expounded in the ‘runaway weight gain train’ have relied on a combination of ‘common sense’ about presumed mechanisms of action together with results from ecological studies that show associations between the specific obesogenic environmental factors and aggregate population rates of obesity prevalence or incidence [241]. However correlation is not the same as causation and the ‘ecological fallacy’ refers to the inability of ecological studies to attribute any causal relationship between exposure to any putative obesogenic factor and the development of disease in individuals. As such these studies
are useful for generating hypotheses about the causation of changes in body weight and health outcomes, but not for testing them [245].

Only a small number of scientific studies have investigated the relationship between obesogenic factors and their purported obesogenic behavioral correlates. A systematic review of 28 studies examined the relationship between physical, social, cultural and economic environmental factors, obesogenic dietary behaviours and body weight in adults [243]. BMI was consistently associated with the food environment but obesogenic dietary behaviours were not. Living in a socio-economically deprived area was the only environmental factor consistently associated with obesogenic dietary behaviours. There were no other consistent relationships between obesogenic environments and obesogenic dietary behaviours.

On the physical activity side, anti-obesity researchers have focused attention on the physical environment and its relationship with active transport (walking or riding a bicycle as a means of transport rather than for recreation or leisure). The assumption, based on ‘common knowledge’ about the relationship between physical activity and body weight, is that people who use active transport are more physically active than those who do not, and will therefore have lower body weight. This ‘common knowledge’ has been tested in numerous studies, and the findings are at best equivocal. A 2012 systematic review of studies focused on adults concluded that there is ‘limited evidence’ that active transport is associated with more physical activity or with body weight [246]. Another systematic review focused on children and adolescents showed that children who walked or rode their bikes to school tended to be more physically active overall than passive commuters [247]. However only one of the 10 studies included in the review showed any impact of active school transport on body weight. The authors of the review concluded that evidence for the impact of active school transport in promoting healthy body weight for children and youth is ‘not compelling’ [247].
A review of obesogenic factors beyond the ‘Big Two’ obesogenic environments proposed 10 factors for which there is strong evidence of a causative role in increased average weight in the population [241]. These include: increased rates of sleep debt; exposure to endocrine disruptors; consumption of obesogenic pharmaceutical drugs; average age of childbirth; and intrauterine and intergenerational effects. Other factors include: reduction in variability in ambient temperature; decreased smoking rates; demographic changes in distribution of ethnicity and age; and reproductive selection bias for higher BMI and assortative mating (higher probability that phenotypically similar individuals will mate). The role that the environment plays in body weight clearly goes well beyond the ‘Big Two’.

As a basis for practice, modern or best practice health promotion values evidence of effectiveness to address the determinants of a health need. This section has reviewed the literature regarding the determinants of body weight as a precursor to reviewing the evidence of effectiveness of initiatives to address such determinants. It is apparent from this review that body weight is determined by complex interactions between multiple individual and environmental factors, only some of which are amenable to change. Public health initiatives designed to address the issue of body weight should therefore be multi-focused and based on the broad range of mutable body weight determinants. The following section reviews the evidence of effectiveness of weight-related initiatives.

2.1.2.2 Addressing the determinants of body weight

One of the technical values of modern or best practice health promotion is the use of evidence of effectiveness of weight-related public health initiatives as a basis for practice. The previous section reviewed the evidence related to the determinants of body weight. This provides a basis for the review of the effectiveness of weight-related public health initiatives to address such determinants. These initiatives are generally referred to as ‘obesity prevention’ programs.
A 2005 systematic review of the literature on childhood obesity prevention programs found 10 randomised control trials or controlled clinical trials that had been conducted with medium term (one year or more) follow up [248]. Despite the huge investments across these studies, only two demonstrated any medium term impact on adiposity: Planet Health and the Kiel Obesity Prevention Study (KOPS). Planet Health was an extensive school based program implemented in the mid 1990s. At the 18 month follow up, the percentage of obese girls at intervention schools was reduced compared to control schools, but there were no differences for boys. No long term follow up results have been reported. The KOPS program began in Germany in 1996. At the end of the first year of the program, intervention schools had lower rates of obesity compared to control schools. However there were no significant differences in adiposity measures at the four year follow up [249] or the 15 year follow up [250].

In 2011 an updated systematic review and meta-analysis of childhood obesity prevention programs was published by the same author group [251]. The meta-analysis included 37 studies with 27,946 participants and resulted in an overall mean BMI reduction of 0.15 kg/m². This reduction equates to a mean weight loss of between 0.1 and 0.3 kg, depending on the initial body weight of the child, and is insufficient to significantly reduce the proportion of children classified as ‘obese’. There were no significant differences in effect based on age group (0-5 years, 6-12 years, 13-18 years), length of intervention (12 months or less, over 12 months) intervention type (physical activity, dietary, combined physical activity and dietary), setting type (educational, educational plus other, non-educational), or risk of bias based on randomisation (no randomisation, unclear, appropriate randomisation). Inexplicably, the authors claim that these results demonstrate ‘strong evidence to support beneficial effects of childhood obesity prevention programs on BMI’ (p. 2). They then warn that ‘given the unexplained heterogeneity and the likelihood of small study bias, these findings must be interpreted cautiously’ [251] (p. 2).

A 2012 systematic review and meta-analysis of obesity prevention interventions focused specifically on increasing physical activity in children found similarly equivocal
results [252]. The meta-analysis included 30 studies with 14,326 participants and found that the pooled intervention effect was small to negligible for total physical activity and small to moderate for vigorous physical activity. There were no significant differences in effect based on age group, BMI, study duration, setting or quality of study. The authors concluded that the review,

...provides strong evidence that physical activity interventions have had only a small effect (approximately 4 minutes more walking or running per day) on children’s overall activity levels. This finding may explain, in part, why such interventions have had limited success in reducing the body mass index or body fat of children (p. 1).

Obesity prevention programs focused on the adult population have been similarly ineffective at reducing average body weight. A systematic review of the literature on the effectiveness of programs aimed at the general population, rather than overweight or obese people specifically, found only nine randomized control trials published between 1996 and 2006 [253]. Of these, only three studies that had follow up periods of one year or more demonstrated any significant effect on BMI or other measures of adiposity. All studies involved women only, and were conducted with selective populations. These studies provide the only evidence of any effect on adiposity, and yet despite their intensity, the results could best be described as modest. It therefore appears as though obesity prevention programs are not effective at significantly reducing average body weight of adults or weight for age of children in the population.

The ineffectiveness of weight-focused programs is also evident at the individual level. The most common weight control practice is dieting which has become so common that it is regarded as a normative behavior [254]. The majority of American adolescents are dieting to lose weight [254, 255]. On any given day 30% of Australian women are on a diet [256] and many girls have started seriously dieting by the age of 14 years [257]. In 2010 consumers in the US spent $60.9 billion on commercial weight loss products and services, and made an average of four attempts over the year to lose weight [258]. In Australia the weight loss industry in 2010 was estimated to be worth $790 million with an annual growth over the previous five years of 4.1% [259].
Many weight loss studies demonstrate short term success at reducing weight. However critics argue that such studies generally suffer from a range of methodological problems including small sample sizes, underrepresentation of men, limited generalizability, a lack of blinded ascertainment of the outcome, a lack of data on adherence to assigned diets, and a large loss to follow-up [260]. Furthermore, critics argue that most weight loss trials do not have long term follow up, and so the results over the subsequent two to five years, when weight gain is most likely to occur, are largely unreported [57]. Where these results have been reported, weight loss programs have a long term (two to five year) failure rate of up to 95% [261, 262].

In addition to being ineffective at producing sustainable weight loss, dieting for weight loss programs do not necessarily result in improved health outcomes. Tomiyama et al. [263] reviewed 21 long term randomised controlled studies to determine whether weight loss diets lead to improved cholesterol, triglycerides, systolic and diastolic blood pressure, and fasting blood glucose, and whether the amount of weight lost is predictive of these health outcomes. They found that across all of the studies, there were minimal improvements in these health outcomes, and none of these correlated with weight change [263].

Even some anti-obesity researchers acknowledge that weight losses will, at best, average three to four kilograms after two to four years among financially well off, highly educated, carefully selected, enthusiastic participants in diet trials, and will be significantly less for people who are poor or uneducated [264]. In response to a study demonstrating at best, moderate effects, Katan editorialised in the New England Journal of Medicine that ‘We do not need another diet trial; we need a change of paradigm...’ [264] (p. 924). In a 2012 editorial in the Canadian Family Physician Journal [265], Ladouceur asked somewhat plaintively,

Don’t you think that obese people, even before consulting their family physicians, have all tried at one time or another to follow a diet, to eat salads? Come on! ... Why, then, do we tell our patients to lose weight? Why do we repeat, “You should lose weight”? What’s with that?
Somewhat sadistic, don’t you think? Do we do this as a way of shifting the guilt and transferring the responsibility of the therapeutic failure? (p. 1).

Moving from programs focused on the individual to those focused on the environment, little evidence exists that reducing the obesogenic environment is an effective strategy for reducing the prevalence of obesity. The Louisiana Health Project tested the effect of a school-based environmental modification program on changes in body fat and BMI z scores in 2060 children in grades four to six from rural schools in Louisiana [266]. After 28 months of follow up, the study found no significant difference in outcome measures compared to the control group.

One of the most widely touted interventions addressing the obesogenic environment is the Arkansas Act 1220 of 2003: An Act of the Arkansas General Assembly to Combat Childhood Obesity [267]. The Act includes a range of initiatives, many of which aim to reduce the obesogenic characteristics of the school environment. The ongoing evaluation of the impact of the Act on the school environment has demonstrated significant improvements in most of these factors including: requiring healthy options be provided for student parties and concession stands; banning commercial advertising by food or beverage companies; offering skim milk options for students in cafeterias; and reducing availability of vending machines during the lunch period and sodas in vending machines [267].

Despite these statistically significant changes to the aspects of the school environment characterised as obesogenic, there has been no change in the proportion of students in Arkansas in the overweight or obese BMI categories [268]. The proportion of students in every BMI category remained stable over the four years from 2003 to 2007. This is consistent with the results of NHANES data for the whole of the USA that show stabilisation of BMI from around 2000 onwards [269]. Despite this evidence to the contrary, researchers claimed that Arkansas has demonstrated a halt in the progression of the ‘childhood obesity epidemic’, in contrast to the rest of the USA [270]. However the evidence demonstrates that this legislation, widely promoted as one of the most significant public health interventions to reduce childhood obesity in
recent times, has been ineffective at changing rates of overweight and obesity in Arkansas in any way substantially different to the remainder of the USA.

Most weight loss programs are not only ineffective, they are counterproductive [234-238]. Diet failure often results in a higher weight than before the diet [237, 238, 271]. In prospective studies in adolescents, dieting predicts weight gain [235]. The more diet failures or weight loss cycles experienced, the higher the weight gain [239, 257, 272, 273]. A study on the determinants of weight gain amongst first year university students examined a range of dieting behaviours and practices [237]. After controlling for BMI, dieting for weight loss strongly predicted weight gain over the course of the first year at university. Participants who reported currently dieting to lose weight gained twice as much weight (5.0 kg) as former dieters (2.5 kg) and three times as much weight as never dieters (1.6 kg).

Modern or best practice health promotion values evidence of effectiveness of health promotion or public health initiatives to address the determinants of a health issue or need. This section has reviewed the literature on the evidence of effectiveness of weight-related public health initiatives. The evidence of effectiveness of such programs is limited, and most weight-related public health programs have demonstrated no direct effect on levels of obesity. Furthermore, weight management programs focused on individuals have been similarly ineffective at achieving sustainable weight loss or health improvements, and paradoxically, result in weight gain for the majority of people. The negative health impacts of dieting, intentional weight loss and weight cycling are significant. The following section reviews the literature related to these and other potential harms of weight-related public health initiatives.

2.1.3 Evidence of potential harm of body weight categorisation

In addition to the evidence of need and evidence of effectiveness as a basis for practice, health promotion best practice values the consideration of potential harms that may arise from health promotion and public health initiatives. Indeed the value of
‘do no harm’ is universal across all health professions. The literature related to the potential harms of categorising people on the basis of their body weight is reviewed in the section.

2.1.3.1 Body dissatisfaction

The potential harms of having a body weight outside what is considered the ‘normal weight’ category encompass a range of psychological issues. Dissatisfaction with one’s body is extremely prevalent in western cultures [274, 275]. It is increasing in women as the ‘fat is bad for your health’ message becomes more pervasive [276]. A study on changes in body mass and body satisfaction among Fijian women from 1989 to 1998 showed that both average body mass and body dissatisfaction increased over the time period, but that increases in body dissatisfaction were independent of actual changes in body weight [277]. Levels of body dissatisfaction are higher for women than men but also change in different ways over the life course.

Women have higher levels of body dissatisfaction, dieting and disordered eating across a 20 year period from college into early-middle adulthood but as these factors decrease for women with age, they increase for men [278]. Racial or ethnic differences in body dissatisfaction also exist although there have been contradictory findings regarding the extent of dissatisfaction in black women [278]. In a study of USA undergraduate college women, ideal body size differed for black and white women [279]. Black women tended to report being smaller than what they perceived the black ideal to be, and white women tended to report being bigger than what they perceived the white ideal to be. Those who perceived themselves as different to the ethnic group’s ideal had higher rates of bulimic symptoms, indicating that although the black ideal was larger than the white ideal, perceptions of difference from the ideal mean that black women may not be protected against eating disorders, as had been suggested by previous research. Antin and Hunt conducted a qualitative study on African-American women’s body image and found a multidimensional discourse in which satisfaction and dissatisfaction occurred simultaneously [280]. This appeared to be a result of tension between individual, social and cultural messages about their
bodies. Participants explicitly mentioned health promotion messages about healthy weight and obesity contributing to their dissatisfaction, in contrast to African American cultural norms contributing to their satisfaction.

There is evidence that strength of religious faith is a protective factor against body dissatisfaction. In a study of almost 200 Muslim and non-Muslim Australian women, for Muslim women, strength of faith was inversely related to body dissatisfaction, body self-objectification and dietary restraint [281]. Increased use of modest clothing and lower media consumption mediated these relationships.

As with adult women, there is strong evidence that body dissatisfaction is high among adolescents in many countries, though gender differences are apparent. A German study showed that 55% of girls and 36% of boys considered themselves to be ‘a bit too fat’ or ‘far too fat’, despite 75.4% of girls and 74.3% of boys being classified as ‘normal weight’ [282]. Rates of dissatisfaction with body weight had increased significantly from 1992/93. The study authors speculate that the ‘currently ubiquitous campaigns against overweight may in fact be responsible for causing an increase in the proportion of adolescents who unjustifiably consider themselves overweight’ [282] (p. 411). Adolescent girls report higher levels of self-objectification, body shame, rumination, and depression than boys [283]. Adolescents’ perception of body weight (both under an ‘ideal’ weight or over an ‘ideal’ weight) is strongly associated with suicidal ideation and suicide attempts, irrespective of actual body weight [284].

In the USA, there is evidence that weight-related concerns and behaviours are prevalent among adolescents in all racial groups, but significant racial differences are apparent [285]. Although not immune from body dissatisfaction, African American girls are at lower risk of weight-related concerns and behaviours than other girls, whereas African American boys and Asian American boys are at higher risk of weight-related concerns and behaviours than other boys.
Body dissatisfaction is now evident at much younger ages than in the past [286, 287], with increasing evidence of emergence between five and eight years of age. By eight years of age, almost three quarters of Australian girls desire a thinner body than their own [288]. High weight concerns or high body dissatisfaction between five and seven years of age predict higher dietary restraint, more maladaptive eating attitudes, and a greater likelihood of dieting at age nine, independent of weight status [289]. Girls and boys become significantly more dissatisfied with their bodies between age 10 and 13 [290]. For adolescents, body dissatisfaction is strongly predicted by dietary restraint [291].

In young adulthood, body dissatisfaction is correlated with lower physical self-esteem, self-reported wellbeing, and higher restrained eating [292]. Women in the obese BMI category have significantly higher levels of body dissatisfaction than women not categorised as obese, and this is correlated with dietary restraint, binge eating, diuretic misuse, diet pill use and fasting. Collectively these factors predict higher levels of psychological distress [293]. Although not as prevalent among women not in the obese BMI category, levels of laxative misuse, over exercising and bulimic episodes also predict psychological distress, indicating that fear of fatness and not just fatness itself is associated with dissatisfaction and its harmful sequelae [293]. Some anti-obesity researchers have proposed inducing greater body dissatisfaction amongst people in the overweight and obese BMI categories as motivation for weight loss [294]. The evidence demonstrating the significant range of short and long term harms associated with body dissatisfaction and its behavioral sequelae suggests that this proposal is not based on sound scientific evidence and would result in further harm.

### 2.1.3.2 Weight instability

As described above, most weight loss programs are not only ineffective, they are counterproductive [234-238]. Diet failure often results in a higher weight than before the diet [237, 238, 271]. One of the biggest studies to demonstrate this effect in adolescents was a prospective study of over 16,000 adolescents aged between nine and 14 years [271]. The Growing Up Today Study (GUTS) assessed dieting behavior to
control weight, binge eating, dietary intake and BMI over a three year period. Over 9000 participants remained in the study for the entire period. Participants were classified as ‘frequent dieters’ (dieting two to seven days a week), ‘infrequent dieters’ (dieting less than once a month to once a week) or ‘nondieters’. At the three year follow up period, both male and female adolescents that were frequent or infrequent dieters had gained significantly more weight than nondieters. The study controlled for potential confounding factors of BMI, age, physical development, physical activity, inactivity, caloric intake and height change over the period. Therefore the weight gain experienced by the adolescents in this study could reasonably be ascribed to the practice of dieting behaviors.

Similar results have been found in Project EAT (Eating and Activity in Teens and Young Adults which involves a diverse population-based sample of middle and high school students in the USA [295]. Over three waves of data collection spanning 10 years, this study demonstrated that the strongest predictors of weight gain in participants were dieting and unhealthy weight control behaviours. In female adolescents, dieting predicted increased binge eating and decreased breakfast consumption. In male adolescents, dieting predicted increased binge eating and decreased physical activity. These behaviours were also associated with increases in BMI. The association between dieting and BMI increase was significant after controlling for binge eating, breakfast consumption, fruit/vegetable intake, and physical activity. The analysis controlled for socioeconomic status and initial BMI, and the associations were found in participants across the weight spectrum. The dieting behaviours associated with the largest increases in BMI over the 10 year period were skipping meals, eating very little, using food substitutes and taking diet pills [295].

Recent research in mice suggests that even moderate dieting changes how the brain responds to stress, prompting the consumption of more high fat foods in dieting mice compared to similarly stressed but non dieting mice [296]. These neurological changes in the brain are hypothesized to make human dieters more susceptible to weight gain through the unconscious increased intake of high fats foods when under stress.
Exercise can also lead to weight gain in 25 to 30% of women [297]. If exercise is promoted for weight loss, then for a substantial proportion of the female population in particular, the result will not only been seen as ineffective but actually counterproductive, irrespective of the other health gains associated with increasing physical activity.

These findings contradict the assertion by Hill that dieting is associated with fatness simply because fat people are more likely to diet [298] and provide strong evidence that traditional weight control programs are ineffective at managing body weight and paradoxically, actually contribute to weight gain. This creates a paradox whereby the one thing that dieters are trying to reduce or avoid (‘excess’ body weight) is increased by the very behavior that is used to try and decrease it. In other words, dieting is actually counterproductive to weight loss [234-238].

Although weight gain is not automatically an independent health risk factor, destabilized body weight entailing losing and regaining weight, otherwise known as weight fluctuation, yo-yo dieting or weight cycling [299], is strongly associated with negative health outcomes. Both the weight loss phase and the repeated phases of weight loss and gain pose a number of health risks.

Epidemiological studies have demonstrated that intentional weight loss is correlated with increased disease risk factors and death [113]. In post-menopausal women, intentional modest weight loss results in reduced bone mineral density, which increases the risk of osteoporosis, however bone mineral density does not increase again when weight is regained [300]. Intentional weight loss also exposes the body to the release of persistent organic pesticides (POPs) that are stored in fat cells [301], thereby increasing the disease risk associated with POPs such as CVD [301], insulin resistance, metabolic syndrome and T2DM [302-304].

Bosomworth reviewed studies investigating the relationship between various weight trajectories (intentional weight loss, stable and weight gain) and all-cause mortality.
The review included two meta-analyses, two systematic reviews and two prospective cohort studies. In studies across the USA and Canada, he found that optimal weight to minimise all-cause mortality encompassed the normal weight, overweight and obese class 1 categories. Intentional weight loss for healthy people across all BMI categories was associated with increased all-cause mortality. Intentional weight loss for people with conditions such as CVD and T2DM was associated with increased all-cause mortality for people in the underweight, normal weight and overweight BMI categories, and decreased all-cause mortality for people in the obese 1, 2 and 3 BMI categories. Bosomworth concluded that ‘Prescribed weight loss as a target for all-cause mortality reduction among the overweight and healthy obese is a failed concept both in terms of evidence for benefit and in terms of implementation’ [305] (p. 521).

A number of large scale observational studies provide evidence of associations between weight cycling and all-cause mortality [306-310], CVD mortality [307-311] and coronary heart disease (CHD) mortality [309], though others have not [312]. A novel study conducted by Markey and Markey [313], examined the association between dieting interest and negative health outcomes, including mortality due to T2DM, CHD and stroke. Using the annual variation in Internet key word searches related to dieting in the USA as the measure of dieting interest, they demonstrated that interest in dieting follows a predictable 12 month cycle, peaking in early January and decreasing steadily throughout the year, only to surge again the following January. The average surge from December to January was 29%, indicating up to millions of additional searches for dieting information at the start of each new year. The size of the surge in Internet key word searches between December and January, rather than the absolute number of searches was predictive of obesity and mortality rates. The authors suggest that this result is consistent with other research demonstrating the relationships between weight cycling and obesity, and weight cycling and mortality, and conclude that the study ‘provides further support for the strong possibility that a “New Year’s Resolution diet” may do more harm than good in the long term’ [313] (p. 10).
In addition to increased weight and mortality, weight cycling is also associated with increased rates of disease and disease risk factors including CHD [309] myocardial infarction, stroke, and diabetes [311, 314, 315], lower levels of high density lipoprotein [316], higher triglycerides [317], hypertension [317, 318], decreased serum triiodothyronine (T3), serum total thyroxine (T4) and resting energy expenditure [317], decreased resting and endothelium-dependent myocardial blood flow, higher HbA1c, decreased adiponectin, increased C-reactive protein and decreased telomere length [128]. The relationships between weight cycling, CVD and metabolic risk factors have been hypothesized to occur via an inflammatory mechanism [319]. Weight cycling may cause a more profound change in chronic inflammation than sustained weight gain [319].

Studies in mice and rats also provide some indication of the mechanisms behind the increased risk associated with weight cycling. One study in rats demonstrated that weight cycling disturbs whole body fatty acid balance irrespective of the amount of fat the rats are provided in their diet [320]. A series of studies in mice demonstrated that weight cycled mice display decreased systemic glucose tolerance and impaired adipose tissue insulin sensitivity when compared with mice that gained weight but did not cycle [321]. These same studies demonstrated that weight cycling also increases the number of CD4+ and CD8+ T cells in adipose tissue, and the expression of multiple T helper 1–associated cytokines [321]. These studies indicate that an exaggerated adaptive immune response in adipose tissue may contribute to metabolic dysfunction during weight cycling.

Weight cycling has been demonstrated to lead to an overshoot or fluctuation of serum cholesterol, triglyceride, glucose, insulin, and glucagon, which contribute to metabolic and CVD processes [311]. The ‘repeated overshoot theory’ – in which fluctuations in blood pressure, heart rate, glomerular filtration rate, glucose and lipids during the weight regain phase of weight cycling lead to increased cardiac load and glomerular and vascular injury – is hypothesised as contributing to increased CVD morbidity and
mortality, even if these values return to normal during periods of weight stability [311].

Weight cycling is also a risk factor for fracture and reduced bone mineral density. Men whose weight has fluctuated more than four times over 30 years are almost three times more likely to receive a forearm fracture than men who have never weight cycled [322]. Weight cycling increases the risk of hip fracture for women [314]. Low bone mass density and weight cycling are both independent risk factors for all-cause mortality, irrespective of initial BMI [323]. Weight cycling is strongly associated with reduced bone mineral density in the lower spine and distal radius [324]. Weight cycling is also associated with suppression of immune function, particularly natural killer cell cytotoxicity [325], and higher rates of renal carcinoma endometrial, colorectal and lymphohematopoetic cancer [128] and gallstones [326, 327]. The evidence of the range of harms associated with weight cycling suggests that it is a serious public health issue, but is rarely mentioned in anti-obesity public health policies and programs.

### 2.1.3.3 Dieting

Dieting has been demonstrated to not only be ineffective at achieving weight loss and increased health outcomes; it also has negative psychological and physiological impacts. Dieting leads to negative cognitive effects such as preoccupation with food, which in turn impacts on working memory [328]. Dieting makes people more likely to be irritable and angry [329]. In one study, dieters were quicker than non-dieters to express irritation when subjected to hectoring public service advertisements promoting exercise [329]. In another study by the same researchers, participants who chose a healthy snack over a tastier, less-healthy one were more irritated by a marketer's message that included controlling language such as ‘you ought to’, ‘need to’ and ‘must’ [329].

Such messages also trigger physiological effects. One study compared satiety and intake for identical foods labeled as either ‘healthy’ or ‘tasty’ [330]. Participants were either assigned to a food or able to choose for themselves whether to eat the food
labeled as healthy or tasty. Eating food labeled as ‘healthy’ triggers lower perception of satiety and greater food intake compared to consumption of ‘tasty’ food, but only for those mandated to eat the ‘healthy’ food (as with dieting). This effect was not seen in those who chose the ‘healthy’ food freely [330]. Nutrient absorption from food is also affected by the pleasure people feel when eating a meal. In a study on iron absorption from meals eaten by Thai and Swedish women, researchers found that women absorbed less iron from meals that were unfamiliar and less desirable to them, than from meals from their own culture. In addition, the women absorbed less iron from a culturally appropriate meal that was blended into a porridge-like consistency compared to the same meal presented in the usual fashion [331]. This research has important implications for nutrient absorption when dieting which can involve eating foods that have less visual or taste appeal. Recent research in mice suggests that even moderate dieting changes how the brain responds to stress, resulting in greater intake of high-fat foods, binge eating and enhancement of appetite in subsequent stressful situations [296].

Although the strategy of weighing children in school and providing parents with a BMI report card has gained favor in many places, one of the inadvertent consequences of this strategy is that up to 20% of parents place their children on a weight loss diet, even if they are explicitly warned not to [332]. Dieting is harmful for children and can cause stunted growth. Even mildly restrictive diets result in reduction in linear growth velocity [333-336]. Dieting has been demonstrated to increase physiological risk factors for disease such as hypertension [271, 299].

2.1.3.4 Disordered eating

Disordered eating behaviours include fasting, fad dieting, use of diet pills, diuretics or laxatives, vomiting and smoking for appetite control. It does not include frank eating disorders such as anorexia nervosa, which are examined in the following section. Dieting significantly increases the risk of self-induced vomiting, use of diet pills, laxatives, and diuretics [337]. As with dissatisfaction and dieting, disordered eating behaviours are highly prevalent among adolescents with almost 60% of American year
9 girls and 30% of year 9 boys engaging in at least one of these behaviours at some time [338]. According to the 2010 report on the US Youth Risk Behavior Survey, 4% of students in grades 9 to 12 had vomited or taken laxatives to lose weight or keep from gaining weight in the 30 days prior to the survey [339]. At the state level, Arkansas, the state with the self-proclaimed toughest childhood obesity prevention agenda in the country, had the highest overall rate of 9.3%, the highest rates for girls (10.8%) and the second highest rates for boys (7.8%). The prevalence of other behaviours performed in the past 30 days to lose weight or keep from gaining weight were similarly disturbing: 10.5% had not eaten in the past 24 hours or more (girls 14.5%, boys 6.9%, Arkansas 16.6%), and 5% had taken diet pills, powders, or liquids (girls 6.3%, boys 3.8%, Arkansas 10.5%). These behaviours are not limited to American children. Taiwanese children as young as 10 years of age are vomiting regularly in order to lose weight [340]. The rates are highest among students 10 to 15 years old. Taiwan has invested a considerable amount of resources into public health programs addressing childhood obesity [340] but the relationship between such programs and the rates of eating disorders in Taiwan has not been established.

There is emerging evidence of high levels of concern from parents about their children’s levels of disordered eating. In the 2011 National Children’s Health Poll conducted by the CS Mott Children’s Hospital in the USA, 30% of parents of six to 14 year old children reported at least one eating behaviour that would be categorised as disordered [341]. These behaviours included inappropriate dieting, excessive worry about fat in foods, being preoccupied with food content or labels, refusing family meals, and having too much physical activity. Overall, 82% of parents reported at least one school-based childhood obesity intervention program taking place in their child's school. These programs included nutrition education, limits on sweets or ‘junk food’ in the classroom, height and weight measurements, and incentives for physical activity. Although this study cannot draw conclusions about the causal pathway, the authors of the study propose that the high levels of disordered eating reported by parents is related to the childhood obesity interventions being conducted in schools.
2.1.3.5  Eating disorders

There is mounting concern that the current public health focus on obesity is contributing to a rise in rates of frank eating disorders, especially in young children. Eating disorders are classified as psychiatric disorders and include anorexia nervosa (AN), bulimia nervosa (BN), binge eating disorder (BED), purging disorder and eating disorders not otherwise specified (EDNOS) [342]. Girls who are severe dieters are 18 times more likely to develop an eating disorder than girls who do not diet, and moderate dieters are five times more likely [343]. In women in the USA, lifetime prevalence estimates are 0.9% for AN, 1.5% for BN, and 3.5% for BED. For men in the USA, lifetime prevalence estimates are 0.3% for AN, 0.5% for BN, and 2.0% for BED [344]. Lifetime prevalence rates for AN are 1.2% in Swedish women, 1.9% in Australian women aged 28-39 years, and 2.2% in Finnish women [345]. Lifetime prevalence rates in Australian women for BN are 2.9%, 2.9% for BED and 5.3% for purging disorder unaccompanied by binge eating [346]. Prevalence rates for eating disorders have increased significantly over the past 30 years [344].

At one of the largest eating disorders clinics in Australia, the number of children being admitted to hospital for eating disorders treatment over the past decade has increased by 270%. The number of children treated as outpatients at the hospital increased more than 10-fold in the six years from 2003 to 2009. In that period the age of children being treated has decreased with the youngest patients now only five years of age [347].

Standardised mortality ratios (SMR) in the US for AN are 1.7 for all-cause mortality and 4.68 for suicide mortality. SMR for BN are 1.57 for all-cause mortality and 6.51 for suicide mortality. SMR for EDNOS are 5.2 for all-cause mortality and 3.91 for suicide mortality [348]. Although BN and EDNOS are often regarded as ‘less severe’ eating disorders than anorexia, both disorders have significantly elevated mortality risks, similar to those for AN.
2.1.3.6 Diet drugs and products

As the rates of dieting and disordered eating have increased over the past 30 years, so too has the use of diet drugs and products, including both pharmaceutical products licensed by national regulatory authorities such as the Food and Drug Agency in the USA and the Therapeutic Goods Administration in Australia, and non-licensed products such as food supplements, food replacements, and weight loss devices. There are no studies demonstrating the efficacy of non-licensed products for sustained weight loss, and there are concerns about the safety of many of them. With respect to pharmacological products, there are studies demonstrating short term efficacy for some products, particularly in combination with lifestyle modification [76]. However, as with all pharmaceutical drugs, there are potential adverse effects from these products. Recognised adverse effects include primary pulmonary hypertension from fenfluramine and dexfenfluramine, valvular heart disease with dexfenfluramine and fenfluramine, increased blood pressure and tachycardia with sibutramine, and malabsorption of fat-soluble vitamins with orlistat [76].

2.1.3.7 Bariatric surgery

Although bariatric surgery is cited as an important tool in the war on obesity, there are potential harms arising from the surgery that need to be considered as the range of patients deemed eligible for the surgery increases. From a mortality perspective alone bariatric surgery has a high level of risk. Bariatric surgery is associated with increased mortality from both therapeutic complications and suicide. In a USA study the fatality rate from bariatric surgery was 1% at 1 year and 6% at 5 years; 25% of deaths in the first 30 days were due to therapeutic complications, and between 3.6% and 6.8% of deaths were due to suicide, compared to an expected rate of 0.45% [349].

2.1.3.8 Delayed health care

Avoiding or delaying seeking health care as a result of feelings about one’s body is a phenomenon that is more prevalent in people in the overweight and obese BMI categories than people in the healthy weight BMI category. Most of the studies on delayed health care have been conducted on women. In a study of 310 female health
care workers in a community hospital, Olson et al. found that after controlling for a range of potential confounding factors, only BMI was significantly associated with appointment cancellation [350]. Women with a BMI of over 27 were almost four times more likely than women in the healthy weight BMI category to cancel a physician appointment because of weight concerns (odds ratio (OR) 3.885, 95% Confidence Interval (CI) 1.509 – 10.274) [350].

In a much larger study of 11,435 women focused more specifically on cancer screening, Wee and McCarthy found that after adjusting for socio-demographic information, insurance and access to care, illness burden, and provider specialty, women in the overweight and obese BMI categories had significantly lower rates of timely Pap smear tests and mammograms than women in the healthy weight BMI category [351]. Fontaine et al. examined rates of Pap smears and mammography as well as clinical breast examination, gynaecologic examination and number of physician visits in a representative sample of almost 7000 women [352]. After adjusting for potential confounding factors including age, race, income, education, smoking, and health insurance status, a BMI of 35 and over was significantly associated with delaying all health care activities except mammography [352].

These studies provide evidence that women in the overweight and obese BMI categories are delaying participating in disease prevention activities, but do not provide any insight into the reasons why. In a study by Amy et al. of almost 500 women with BMI between 25 and 122, BMI was significantly associated with delaying pelvic examination, Pap smear tests and mammograms [353]. Women in the obese BMI category reported that their weight was a barrier to them undertaking cancer prevention screening tests. The percent of women that reported their weight as a barrier increased significantly in association with BMI, even though women with higher BMIs were just as likely to be moderately or very concerned about cancer symptoms. The study drilled down further into the issue of weight as barrier, and found that disrespectful treatment, embarrassment at being weighed, negative attitudes of providers about body weight, unsolicited advice to lose weight, and medical
equipment that was too small to be functional all contributed to delayed health care [353].

Drury and Louis also explored the issue of weight as a factor in delaying or avoiding health care in a convenience sample of 216 women [354]. Study participants reported that gaining weight since the last health care visit, not wanting to be weighed, and knowing they would be told to lose weight were the primary reasons they delayed or avoided health care. In a study of men and women with a BMI of 30 and over, half of the participants reported that they had been humiliated by health professionals because of their weight [10].

In an in-depth study of 22 women, Williams [355] used constructivist grounded theory methodology to explore the experiences of ‘large bodied’ healthcare consumers. Her study revealed that of all the health care experiences, interactions with medical practitioners were the most challenging for the women. Participants in the study felt that their General Practitioners (GP) in particular, negatively ‘branded’ them by their body size, and as a result, their weight was the central focus of the consultation, to the point where it even obscured the reason they sought help initially. Women report being prescribed weight loss by their GP for conditions such as a dislocated shoulder, strep throat and a broken toe [356].

2.1.3.9 Bias, prejudice, stigma, harassment and discrimination

Health care avoidance behaviours and reports of poor treatment by health professionals are consistent with studies of health professionals’ prejudicial attitudes towards obese people. In a study of attitudes of 389 specialists in obesity management and research, strong pro-thin, anti-fat bias was found among participants [357]. Respondents expressed high levels of adherence to stereotypical beliefs that obese people are lazy, stupid and worthless. Higher levels of bias were significantly associated with being female, younger age and lower body weight [357]. Lack of respect for patients increases in association with patients’ BMI [358], as does physicians’ assumptions about patients’ non-adherence to medication [359]. Negative
attitudes such as these are related to the physician’s BMI, and other physician characteristics such as speciality, competency and years since postgraduate training [359].

A systematic review of studies collectively encompassing over 10,000 respondents found that health professionals in the healthy weight BMI category have more negative attitudes towards patients in the obese BMI category than health professionals who themselves are in the overweight or obese BMI categories [360]. A study of almost 400 physicians found that negative attitudes were more prevalent in internal medicine specialists, those with lower perceived skill in patient assessment, and those with a longer time since graduation [361]. Stigmatisation by health care professionals varies according to a number of characteristics, but perceived stigmatisation contributes at least in part to consumers choosing to delay or avoid health care.

Exploring the impact of negative attitudes of medical professionals towards fat people on quality of care, Hebl and Xu surveyed 122 primary care physicians about their intended treatment of a hypothetical patient with migraine [362]. The migraine patient was presented in a written case study to the physicians and the information was identical except for gender and body weight (healthy weight, overweight and obese). The results demonstrated no differences in tests ordered, time spent with the patient, or attitudes towards the patient according to gender, but significant differences according to BMI. Despite indicating that they would order more tests for the patients in the overweight and obese BMI categories, physicians reported that they would spend less time with them compared to the patients in the healthy weight BMI category. In addition, patients in the overweight and obese BMI categories were judged by the physicians significantly more negatively than patients in the healthy weight BMI category on their perceived health, how well they care of themselves and how self-disciplined they were. Physicians reported that they would have to be stricter with patients in the overweight and obese BMI categories, that seeing such patients would be a waste of time, and that they have less patience and find them more
annoying than patients in the healthy weight BMI category. Physicians reported a lower degree of personal desire to help patients in the overweight and obese BMI categories and a lower level of positivity toward such patients. They reported that seeing patients in the overweight and obese BMI categories resulted in a lower level of affinity for their job. These beliefs and attitudes stemmed solely from the information about patients’ BMI. The authors of this study conclude that stigmatising attitudes play an influential role in diminishing the quality of healthcare that patients in the overweight and obese BMI categories receive [362]. High rates of anti-fat bias and stigmatising attitudes among health care professionals make a significant contribution to delayed and diminished health care for people in the overweight and obese BMI categories and potentially contribute to some of the poorer health outcomes that are associated with very high BMIs [363].

Anti-fat bias is not restricted to health care professionals. Teasing, harassment, stigma, prejudice and discrimination based on body size are widespread phenomena that lead to considerable discomfort, distress, unhealthy behaviours and poor health outcomes. The prevalence of weight-related teasing and harassment in adolescents is high, and appears to be increasing. Prevalence of weight-related teasing in the Project EAT 1999 cohort was 29% for early adolescent and 23% for middle adolescent females, and 18% for males in both age groups [364]. The level of weight-related teasing remained high as the cohort of adolescents transitioned into young adulthood, and for early adolescent males, it increased to 27% [364]. Over 10 years later, the prevalence of weight-based harassment in the Project EAT 2010 cohort was 35.3%, the highest rate of any type of harassment, and similar to race-based harassment (35.2%) [365]. Weight-based harassment was prevalent across all weight groups and in males and females. Prevalence rates for females were 37% for underweight, 27% for normal weight, 37% for overweight, and 60% for obese females. For males the prevalence rates were 31% for underweight, 19% for normal weight, 30% for overweight and 58% for obese males [365].
For adolescents, weight-based teasing and harassment are associated with: lower body satisfaction; higher weight concerns; higher preference for sedentary activities or activities performed alone; and bulimic behaviour, irrespective of actual body weight [366, 367]. Teasing about body weight is associated with lower self-esteem, more loneliness, higher depressive symptoms, and thinking about and attempting suicide, even after controlling for actual body weight. These associations are consistent for adolescent boys and girls, across racial, ethnic, and weight groups. The more sources of teasing that adolescents are exposed to, the higher the prevalence of emotional health problems. In a study by Madowitz et al. [367, 368], children that experienced teasing from peers had significantly higher levels of depression and were five times more likely to engage in unhealthy weight control behaviours than children who did not experience such teasing. Being bothered by the teasing, the frequency of teasing, and the number of teasing sources all significantly increased the risk of depression.

In 2007 Singapore ended its 15 year-long anti-obesity program ‘Trim and Fit’ because of the volume of complaints by parents about the stigmatization and teasing of children on the basis of their body weight [369]. In the Trim and Fit program, children in the overweight BMI category were singled out and made to do rigorous exercise before and after school and during school breaks, in addition to regular physical education [370]. More than 11% of Singaporeans with anorexia nervosa cited the teasing they received in the Trim and Fit program as a precipitating event for their eating disorder [371]. Teasing about body weight is also associated with poor health behaviours. In studies designed to determine which comes first, the teasing, the behaviours or the body weight, it is apparent that being teased about body weight is strongly predictive of overweight BMI category, binge eating, and extreme weight-control behaviours for adolescents over a five year period [372].

A small but growing number of people have died from suicide or murder as a direct result of teasing or bullying about body weight [373]. In 2011, news reports suggested that within the space of a few months in the USA, two young girls died from suicide due to weight-based bullying, and one mother killed her son and then herself because
he had been subjected to weight-based bullying, and she could not bear for it to continue [374].

Despite only moderate increases in average body weight over the past 40 years, stigmatisation of fatness has increased significantly in that same time period [375]. Exposure to fat stigma from others, including health professionals, or internationalisation of fat stigma [376, 377] is associated with depression, anxiety, low self-esteem, body image disturbance, disordered eating, avoidance of physical activity, decreased use of preventive health services, increased calorie consumption, and weight gain [363, 378-380].

Stigma is not only conferred on people who have what Goffman refers to as a ‘spoiled identity’, but also on those perceived to be in a social relationship with them [381]. Hebl and Mannix demonstrate that this ‘courtesy stigma’ or stigma by association extends beyond those in social relationships with a fat person to those within mere spacial proximity [382]. In a series of experiments that demonstrate the profound nature of fat stigma, male job applicants were rated significantly more negatively when seated next to a woman in the overweight BMI category compared to a woman in the healthy weight BMI category. This negative rating existed regardless of the perceived depth of the relationship, the participant’s anti-fat attitudes or gender, and whether or not positive information was presented about the woman [382].

Fat stigma is perpetrated through many channels, including images in the media. Almost 60% of images in US online news stories about obesity include an image of a fat person from the neck down [383] – a ‘headless fattie’ [384] – compared to 6% of images showing headless non-fatties. Fat people are also portrayed more commonly from the rear or the side, with bare body parts and eating ‘unhealthy’ foods. They are less likely to be shown being physically active, in professional clothing, or as experts or professionals [383]. Exposure to stigmatising images of fat people increases levels of anti-fat bias [385]. The widespread use of the ‘headless fattie’ image dehumanises fat
people and strips them of their rights to be portrayed with dignity. It adds to the distress and discomfort fat people feel living in a fat-phobic society.

Body size discrimination is sometimes referred to as a socially acceptable form of discrimination [386] or the last bastion of prejudice [387] as it is extremely widespread and for the most part, untouched by legal prohibition. Discrimination is an outcome of body size oppression and like all other forms of oppression, body size oppression is a human rights issue that negatively impacts on all members of society [388]. A relatively minor number of jurisdictions in the developed English-speaking world have legislation in place prohibiting discrimination on the basis of body size. As at November 2012, the following laws have been enacted in Australia and the USA. The Equal Opportunity Act 2010 of Victoria is the only legislation in Australia that prohibits discrimination on the basis of body size or shape as attributes are included in the category ‘physical features’ [389]. The act prohibits discrimination by employers, partnerships, firms, professional and other organizations, qualifying bodies, employment agencies, clubs or community service organizations and municipal or shire councils on the basis of body size or shape. It also prohibits discrimination on the basis of body size or shape in the provision of education, goods and services and accommodation (including alteration of accommodation) [389].

Michigan is the only State in the USA with size discrimination law. The Elliott-Larsen Civil Rights Act 1977 prohibits discrimination practices based on 10 categories, one of which is body weight [390]. There are currently six cities in the US that provide people with legal protection from size-based discrimination. In Washington, DC, the Human Rights Law includes ‘personal appearance’ as a protected category. In San Francisco, CA, ‘weight and height’ are included as protected categories in the municipal code on discrimination. The municipal codes on discrimination in Santa Cruz, CA, Binghamton, NY Urbana, IL and Madison, WI, are slightly broader and include ‘height, weight or physical characteristics’ as protected categories [391]. Some people in the USA have attempted to use the Rehabilitation Act of 1973 or the Americans with Disabilities Act of 1990 (known jointly as the ADA) to challenge weight-based discrimination. However
these claims have met with very limited success. Recent amendments to the ADA have expanded the definition of what constitutes a disability, including actual or perceived disability. There are now calls for a ‘Weight Discrimination in Employment Act’ to protect fat people from being discriminated against in the employment setting [392].

Despite these small number of laws, or perhaps because of their small number, discrimination against people based on body size is widespread and systematic. Over 40\% of fat adults (BMI over 35) have experienced body size discrimination [393]. Doctors (including obesity specialists), nurses, nutritionists, coaches, employers, landlords, teachers and even parents have demonstrated bias, prejudice, stigmatization and discrimination against people of larger body weights [360, 376, 393-398].

Discrimination in the education setting severely affects children’s development, and there is evidence that fat children are stigmatised or discriminated against by their teachers and other students. Stigmatisation of children by their peers increased by 41\% in the period from 1961 to 2001 [375]. A 2012 study investigated the relationship between body weight and school grades [399]. After controlling for demographic variables, intelligence, personality and well-being, students in the obese BMI category received significantly lower grades than students in the healthy weight BMI category in grade 8 (d=0.39), community college (d=0.42) and university (d=0.31), There were no statistically significant differences in test scores for intelligence or achievement. The lower grades were postulated to be reflective of ‘teacher prejudice against overweight and obese students rather than lack of ability among these students’ (p. 1).

A number of studies have demonstrated that Physical Education (PE) teachers have stronger negative attitudes towards and negative performance expectations of males and females in the overweight BMI category compared to students in the healthy weight BMI category [400, 401]. They also exhibit strong beliefs in the personal controllability of body weight [401] and lack awareness of and strategies to handle teasing of students in the overweight BMI category [402]. PE teachers are not alone in their negative attitudes towards fat students. In a study examining the beliefs and
attitudes of science, health, home economics, and physical education teachers, school nurses, and school social workers from all junior and senior high schools within a large urban school district, over half of the respondents attributed body weight to individual behaviours and up to a quarter perceived people in the obese BMI category as more emotional, less tidy, less likely to succeed at work, having ‘different personalities’ or more family problems than people not in the obese BMI category [403].

It is not only teachers who appear to stigmatise or discriminate against fat students; parents too have been found to do so. Fat female college students are less likely to receive support from their parents for their college education compared to students in the healthy weight BMI category, irrespective of parental income and education levels, race, family size or number of children in college [404]. Fat male and female college students are more likely to rely on their own finance sources to purchase a car compared to students in the healthy weight BMI category, whose parents are more likely to make the purchase for them, irrespective of parental income, or students’ levels of risk seeking behaviour such as drinking and driving, reckless driving, sensation seeking or impulsiveness [405].

In a nationally representative survey conducted by Roehling et al. [398], women were 16 times more likely than men to report weight-based discrimination in the workplace. The extent of discrimination worsened with increasing body size. Compared to people in the healthy weight BMI category, people in the overweight BMI category were 12 times more likely to report weight-based discrimination in the workplace [398]. People in the obese BMI category were 37 times more likely, and people in the severely obese BMI category people were more than 100 times more likely to report weight-based discrimination in the workplace [398]. In another nationally representative study, Carr and Friedman investigated perceived major discrimination, work-related discrimination, day to day discrimination and health care related discrimination [406]. They found that people with a BMI of 35 and over reported significantly higher rates of all forms of discrimination than people in the healthy weight BMI category, and were
significantly more likely to attribute their discriminatory experiences to weight or appearance, controlling for age, race and socioeconomic status [406].

Health promotion best practice values the consideration of potential harms that may arise from health promotion and public health initiatives. A significant body of literature demonstrates that being categorised as having a problematic body weight, and the actions arising from such categorisation have negative consequences for people’s mental, physical and social health and wellbeing. Body dissatisfaction, weight instability, dieting, disordered eating, eating disorder, the use of diet drugs and products, bariatric surgery and delayed health care all result from being classified as overweight or obese or the fear of such. The categorisation of people on the basis of their body weight also results in significant social issues including widespread fat bias, stigma and discrimination. In addition to social and economic consequences, these impacts in turn contribute to many of the same negative health impacts that are ascribed to being overweight or obese [407].

2.2 Body weight and health: popular media representations

Modern or best practice health promotion values evidence of need, effectiveness and potential harms associated with health promotion or public health initiatives. In the previous sections in this chapter I have reviewed the scientific literature for evidence of need, effectiveness and potential harms of weight-related public health initiatives, including the categorisation of people on the basis of their body weight. However the topic of body weight is not confined to the scientific media. In this penultimate section of the background chapter, representations in the popular media of the evidence of need, effectiveness and potential harms associated with weight-related public health initiatives are reviewed.

Coverage of body weight in the popular media (defined here as the media designed for consumption by the general public, as opposed to the scientific media which is designed for consumption by scientists) was at an extremely low level until the mid-
1990s, when it started to increase. The rate of increase in coverage was constant for the next five years and then escalated dramatically from 2001 onwards. In 2006 a colleague and I conducted a study on trends in news items related to obesity published in Australian and New Zealand news outlets [408, 409]. The Proquest ANZ Newsstand database was searched for all articles that included the terms ‘obesity’ or ‘obese’ in the title or the full text within each calendar year from 1990 to 2005. At the time of the study the number of items for each year from 1990 to 1995 was zero. Forty news items were listed for 1996 or one item on average every 9 days. By the year 2000 this had risen to 339 items articles and in 2005 there were 2734 items, an average of 7.5 items per day. This represented a 50-fold increase in obesity related news items within a 10 year timeframe from 1996 to 2005 [409].

In updating this analysis to cover the period since 2005, I reran the queries using the same search terms on the same database covering the period from 1995 to 2010. (The number of items for each of the years in the previous study (1995 – 2005) had all increased, due to an increased number of news outlets covered retrospectively by the database. The latest analysis is therefore a more accurate reflection of the extent of obesity related items published across the period 1990 to 2013. This analysis demonstrates the continued upwards trend in news items related to obesity (Figure 2). The number of items continued to rise exponentially in this period until it reached a peak in 2007 with over 6500 news items. There was a drop in 2008 and 2009 but in 2010 the number of obesity related items in the news had climbed back to over 6200. As of 17 December 2013, the number of items for 2013 had reached a new high at almost 7200. Despite the dip in 2008-9, the overall steep upward trend first reported in 2006 has been sustained through to the present day.
Figure 2: Number of items in Proquest ANZ Newsstand database referring to obese or obesity in the title or full text, 1995 – 2013
* Data for 2013 for period up to 17 December

These analyses demonstrate the volume of media reporting on obesity and the rapid increase since 2000, but not the content, tone or discourse used in the items. A study by Kim and Willis addresses both aspects of news reporting. In addition to analysing trends in the number of obesity reports newspaper articles and television news in the USA from 1995 to 2004, they also examined the framing of responsibility for ‘causing and fixing’ the ‘problem’ of obesity [410]. The trend in reporting over the years mirrors that found in the study my colleague and I conducted covering a similar time period [409].

With respect to content, Kim and Willis explored trends in the news items about whether responsibility for causing obesity was framed as personal or societal, and whether solutions to the problem of obesity were framed as personal or societal. The dominant personal causes identified in the articles were unhealthy diet (present in 23.3% of items), sedentary lifestyle (in 18.2% of items) and genetic conditions (in 11.8% of items). The framing of responsibility for ‘fixing’ the problem followed a similar pattern. Personal solutions were mentioned more commonly than societal solutions ($P < .001$) with the leading personal solutions being healthy diet (present in 38.2% of items), physical activity (in 32.0% of items), and medical treatments (in 30.6% of
items). The attribution of personal responsibility for causes and solutions decreased over time, balanced by the increase in attribution of responsibility for causes and solutions to society, particularly in newspaper items.

Another study by Caulfield et al. [411] of media coverage of obesity in high circulation daily newspapers in the USA between 1990 and 2007 specifically examined the reporting of the genetic causes of obesity, however the results about framing contrast with those found by Kim and Willis. The analysis revealed an important shift. Earlier in the time period, articles were more likely to describe genetics as playing a significant role in the causation of obesity. Over time, there was a shift away from this deterministic view towards a behaviourist view highlighting personal responsibility for obesity. The results of Caulfield et al.’s study seem to contrast directly with the Kim and Willis finding that attribution of personal responsibility decreased over time, and attribution of genetic conditions was unchanged. However the two samples are conceptually very different and any conclusions drawn by Caulfield et al. about changes in reporting of obesity in general are unfounded. However their findings about changes in the way genetics and obesity are reported over time are nonetheless very interesting, particularly given the rapid increase in the rate of discovery of genes associated with body weight [412].

In another study on the portrayal of obesity in the media, Borero traced the historical emergence of the concept of an ‘obesity epidemic’ through an analysis of 751 articles published in The New York Times between 1990 and 2001 [413]. Borero identified three major discourses or discursive pairings about obesity. Analysis of these discursive pairings revealed that the news coverage of obesity in The New York Times was emblematic of the framing of a new breed of ‘post-modern epidemics’ in which the language of traditional epidemics (once confined to the rapid spread of infectious diseases) is used to heighten moral panic about a broad range of issues, some of which may not even have a clear pathological basis. Boero argued that the media have played an important role in the construction of the concept of the ‘epidemic of obesity’ and that this framing, together with the moral panic engendered by the use of the
‘epidemic’ discourse, precludes a macro level approach to health that focuses on the broader social, economic and political determinants of health [413].

Trends in the framing of the causes of and solutions to the problem of obesity in news items were also addressed in a study by Lawrence [414]. She theorised, based on previous research, that if obesity can be reframed in systemic terms (rather than biological or behavioural terms) then it will become amenable to broad system policy solutions. To determine if this reframing had indeed happened over time, Lawrence examined news items on obesity in six purposively selected years between 1985 and 2003. As with the other studies described above, Lawrence found evidence of a framing contest being played out in the news media between individualist or behaviouralist discourses, and societal or systemic discourses. Her results indicate that over the time period of the study, there was a significant increase in the framing of obesity in terms of environmental risk (where blame for obesity rests with the obesogenic environment). There was no change in the framing of obesity as involuntary or knowingly created risk and there was uncertainty about any changes in the framing of obesity as being a risk to everyone. These findings of an increase in framing responsibility in societal or environmental terms are consistent with the findings of Kim and Willis described above.

The differentiation between individualist behavioural causes and societal, systemic and environmental causes of obesity was also evident in a study by Saguy and Gruys [415]. In this study, the authors compared American news coverage of obesity and eating disorders in 332 articles published in The New York Times and Newsweek between 1995 and 2005, plus five additional articles published in 2006 and 2007 in the same titles. The researchers performed content analysis to examine how blame and responsibility were attributed in items about obesity and eating disorders. They found that in news items on anorexia nervosa and bulimia nervosa, responsibility was more likely to be attributed to a complex range of factors beyond the control of the individual, and the individual person was therefore more likely to be portrayed as a victim. On the contrary, news items on binge eating disorder were more akin to those
on obesity, where the responsibility was attributed to bad individual choices. Saguy and Gruys argue that the media contribute significantly to the social construction of obesity and the stereotypes attached to it [415].

It is evident from the studies described above that the quantity of media reporting on obesity as a health issue has increased considerably since the beginning of the 21st Century. News items generally attribute responsibility for this issue to ‘unhealthy’ individual behaviours, or an environment in which these behaviours are encouraged.

2.3 Body weight and health: a paradigmatic explanation

2.3.1 Scientific paradigms

The term ‘paradigm’, from Greek, means model, pattern or example [416]. The contemporary meaning of the term ‘paradigm’ as it relates to scientific thought, was first articulated in 1970 by the science philosopher Thomas Kuhn in his now historic treatise *The Structure of the Scientific Revolution* [417]. Kuhn proposed that a paradigm is a constellation of beliefs, concepts, ideas and values, together with a set of approaches and techniques that are used by members of a scientific community. The paradigm therefore includes the law, theory, application and instrumentation of the paradigm [417]. These aspects of the paradigm define the scientific community using the paradigm during a particular period of time.

The paradigm acts as a guide or a map to what issues should be addressed, the kinds of research questions that should be asked about the issues, how the questions should be structured, how the research should be conducted, how the research results should be interpreted, and the types of explanations that are acceptable [417]. The paradigm is therefore a set of rules that establish and define boundaries, and indicate how to behave inside those boundaries to be successful. The dominant paradigm is the set of rules that is the most standard and widely held at a given moment [418]. For those within the dominant paradigm, it is difficult or even impossible to imagine any other paradigm. This is known as the ‘paradigm effect’ [418].
According to one schema, scientific paradigms include positivist, interpretive and critical paradigms [65, 419]. These paradigms provide three different theoretical perspectives that guide researchers as they respond to issues, pose research questions and undertake their research studies. Positivism is the oldest and most dominant paradigm in both the natural and social sciences, though in the social sciences it has been challenged by interpretive and critical paradigms [65, 419].

The Technical Report: From Weight to Well-Being: Time for a Shift in Paradigm? published by the British Columbia Provisional Health Services in 2013, described four weight-related paradigms [420]. In the first paradigm, the BMI categories of overweight and obesity are problematised, and BMI is reduced through limiting caloric intake and increasing energy expenditure. The second paradigm approaches the medically problematic BMI categories of overweight and obesity through an ecological lens addressing the ‘obesogenic environment’. Both of these paradigms place weight in the centre of discussions about health, and can be referred to collectively as the weight-centred health paradigm. The third paradigm focuses on optimising psychological and physical health and wellbeing of people of all shapes and sizes through intuitive eating and enjoyable leisure and physical activity. The fourth paradigm moves beyond the individual level to promote flourishing in mind and body for all people by acting on the broader socio-environmental factors that impact on health and social issues such as weight bias, stigma, bullying and discrimination. The third and fourth paradigms can be referred to collectively as the weight-neutral health paradigm.

2.3.2 Weight-centred health paradigm

2.3.2.1 Review of the weight-centred health paradigm

The weight-centred health paradigm is regarded as a positivist scientific paradigm [19]. It is the dominant paradigm evident in basic and applied scientific inquiry related to body weight, public policy related to body weight, nutrition and physical activity, and the popular media’s portrayal of the ‘ideal’ body [20, 79]. According to Monaghan et al. [421] a range of agents variously described as ‘obesity alliances’ [422], ‘obesity
crusaders’ [423], ‘obesity alarmists’ [424], ‘anti-obesity proponents’ [425] or ‘obesity epidemic entrepreneurs’ [421] are engaged in as the enterprising act of socially constructing fatness as a ‘correctable’ health problem. Monaghan et al. categorise ‘obesity epidemic entrepreneurs’ as creators, amplifiers/moralizers, legitimators, supporters, enforcers/administrators and the entrepreneurial self [421].

According to Monaghan et al.’s schema, the scientific community, particularly the discipline of epidemiology, plays the role of ‘creator’ through setting benchmarks for the classification of obesity, identifying the relative risks of morbidity and mortality for each weight classification and highlighting trends and patterns of obesity [421]. Monaghan et al. characterise the popular media as playing the role of ‘amplifier or moralizer’ through reporting the scientific ‘facts’ about obesity produced by the scientific community, framing obesity as a moral issue, and perpetuating the concept of the ‘ideal’ body for health and beauty [421]. Numerous other scholars have made similar claims about the role of the media as an amplifier of alarm about the obesity epidemic [98, 411, 414, 415, 426-429].

In Monaghan et al.’s schema, Governments, particularly public health departments, play the role of ‘legitimator’ through establishing anti-obesity task forces (often comprised primarily of medical experts) and commissioning obesity reports (focused predominantly on health economics and modelling future scenarios) [421]. Examples of these include the UK Foresight Commission [430], the Australian Government National Preventative Health Taskforce [16], and the USA White House Task Force on Childhood Obesity [431]. Furthermore, according to Monaghan et al., Governments play the role of ‘legitimator’ by developing anti-obesity public health policies and programs including surveillance and screening, and public health strategies primarily focused on increasing physical activity and healthy eating choices and creating environments that make such choices the easy choice or the only choice, in order to prevent or reduce ‘excess’ body weight [421]. Examples of such Government programs include the Australian initiatives Taking Preventative Action [432] and Measure Up [433], the UK Healthy Weight, Healthy Lives [434] and Change4Life
programs [435], the New Zealand Healthy Eating - Healthy Action. Oranga Kai – Oranga Pumau program [436], the Integrated Pan-Canadian Healthy Living Strategy [437], and from the USA, Let’s Move [438] and the Healthy Hunger-free Kids Act [439].

Monaghan et al. categorise the weight loss industry as ‘opportunist supporter’ by providing weight loss products and services for profit [421]. In 2010, consumers in the US spent $60.9 billion on commercial weight loss products and services, and made an average of four attempts over the year to lose weight [258]. In Australia the weight loss industry, including pills, books, counselling services, surgeries, cookbooks, pre-packaged food and beverages, was estimated to be worth $790 million in 2010, with an annual growth over the previous 5 years of 4.1% [259].

According to Monaghan et al. [421] anti-obesity campaigners also play the role of ‘supporter’ through implementing or mobilising support for anti-obesity campaigns (for example the Strategies to Overcome and Prevent (STOP) Obesity Alliance [422]). Health professionals are categorised by Monaghan et al. [421] as playing the role of ‘enforcer/administrator’ through enforcing or administering the weight rules developed by the scientific committee and legitimated by Governments and offering authoritative advice to health care consumers about the importance of healthy weight and strategies for weight loss (see for example the Guidelines for Preventive Activities in General Practice produced by the Royal Australian College of General Practitioners [440]).

And finally, slimmers themselves, people engaged in the practice of weight loss, are categorised by Monaghan et al. [421] as playing the role of the ‘entrepreneurial self’ who display their moral worth and civic responsibility by engaging in weight loss attempts. People engaged in attempted weight loss are also said to have to work to manage the stigma, discrimination and other forms of oppression they face as a result of their body size [421].
Those engaged in the construction of weight as an obesity epidemic (Monaghan et al.’s obesity epidemic entrepreneurs [421]) are operating within a paradigm; a set of rules that establish and define boundaries, and indicate how to behave inside those boundaries to be successful [417]. The boundaries of the weight-centred health paradigm are established by the claims made about obesity. Statements about obesity are common across the anti-obesity literature [2, 3, 5, 15, 17, 20, 26, 79, 107, 423, 441-447]. Many of these statements have been reviewed in the previous sections of this chapter and will simply be recapped here.

According to the weight-centred health paradigm, being overweight or obese is said to cause reduced life expectancy and mortality. Obesity, and sometimes even overweight, is claimed to ‘cause’ or ‘lead to’ CVD, T2DM, some types of cancer and osteoarthritis. Increases or decreases in body weight are claimed to be caused by a simple imbalance between an individual’s energy intake and energy expenditure. Body weight is claimed to be at least partly volitional and within the control of the individual. Increased dietary energy intake and decreased energy expenditure are the most commonly cited causes of increased body weight. Promoting volitional changes to correct this imbalance forms the basis of all major WHO and government anti-obesity public health policies and programs. Altering energy intake and expenditure are claimed to result in successful and sustained weight loss. Environmental change is claimed to contribute significantly to the obesity epidemic. Obesogenic environmental factors are described as those factors that contribute to changes in nutrition and physical activity by making unhealthy behaviours the easy or default choice for people. Creating a less obesogenic environment is claimed to reduce the prevalence of obesity. By focusing on body weight, it is claimed that the purported costs associated with body weight, largely identified through epidemiological and economic modeling studies, will be mitigated.

2.3.2.2 Critique of the weight-centred health paradigm

As the WCHP has risen to dominance, so too has the breadth and depth of critique of the paradigm from a broad range of people including academics, journalists, political
scientists, lawyers, sociologists, health professionals and members of the community. Numerous research-based books have provided detailed critiques on various aspects of the WCHP including, but not limited to: Tipping the Scales of Justice [390], Big Fat Lies [3], The Obesity Myth [2], Revolting Bodies? The Struggle to Redefine Fat Identity [448], The Spirit and Science of Holistic Health [57], The Obesity Epidemic: Science, Morality and Ideology [441], Fat Politics: The Real Story Behind America’s Obesity [444], Diet Nation: Exposing the Obesity Crusade [445], Rethinking Thin: The New Science of Weight Loss and the Myths and Realities of Dieting [449], Men and the War on Obesity [450], Education, Disordered Eating and Obesity Discourse: Fat Fabrications [451], Biopolitics and the ‘Obesity Epidemic’: Governing Bodies [452], The Fat Studies Reader [446], Health at Every Size: The Surprising Truth About Your Weight [26], The End of the Obesity Epidemic [107], The Great Fat Fraud [453], Debating Obesity: Critical Perspectives [447], Weighing In: Obesity, Food Justice, and the Limits of Capitalism [454], Talking Fat: Health vs. Persuasion in the War on Our Bodies [455], Killer Fat: Media, Medicine and Morals in the American “Obesity Epidemic” [429], Fat [456] and What’s Wrong with Fat? [457]. Likewise the volume of critical articles published in the academic literature has increased dramatically. There is also significant critique of the paradigm in popular books such as Fat?So! [5] and Fat and Proud [6], the popular media, and the fatosphere – the collective term for bloggers on the internet that write specifically about fatness [458, 459].

Authors within this body of literature have termed their scholarship ‘critical weight studies’ [421], ‘critical obesity studies’ [460] or ‘fat studies’ [446]. Irrespective of their label, they are united by their critiques of the claims made by the weight-centred health paradigm. Gard characterises those that critique the ‘obesity epidemic’ and the claims of the ‘obesity alarmists’ as a ‘motley crew’ of ‘strange bedfellows’ that he collectively terms ‘obesity sceptics’ [424]. He contends that ‘obesity sceptics’ include ‘feminists, queer theorists, libertarians, far right wing conspiracy types and new ageists’, and can be categorised as either ‘empirical sceptics’, who critique the veracity of scientific claims made in the name of the ‘obesity epidemic’, or ‘ideological sceptics’...
whose critiques of the ‘obesity epidemic’ are primarily based on feminist critiques of science and critiques of neoliberalism [424].

Criticisms raised by Gard’s ‘ideological sceptics’ [424] point to the preoccupation of the WCHP with statistics rather than narratives [37, 461] and the epistemological presumption of scientific objectivity [461, 462]. The centrality of the biomedical health paradigm within the WCHP is criticised because the concept of health is reduced to physical health, and physical health status is reduced to a single, medically problematic number (body weight or waist circumference or percentage body fat) [20, 26, 463]. Further critique focuses on the reliance of reductionist science which promulgates the notion that changing body weight or fat is a simple linear process of consciously balancing energy consumption with energy use [20, 464]. This assertion leads to the ideological criticism that the WCHP focuses too heavily on individual responsibility for health (through balancing the energy equation) [450, 465, 466], leading to moral judgements and panic, prejudice, bias and stigmatisation of people based on their health status (healthism), body size and behaviours [363, 383, 406, 413, 415, 441, 462, 465, 467-477]. Further consequences include unwarranted governmental and social surveillance and regulation of the behaviours and bodies of children and adults [445, 478-482] – inequitably experienced by women, the poor and minorities – and greater inequalities in health [424, 425, 483-485].

A significant thread in the ideological critique of the WCHP relates to the role of the free market and the undue power and influence that profit-making organisations (such as pharmaceutical, fitness and commercial weight loss companies) have on scientific decision-making about body weight and public health policy. This critique about conflict of interest is taken up by those focusing on ideological issues as well as the empirical sceptics [2, 7, 26, 57, 425, 443, 450, 486-489]. Gingras [490] further argues that such conflicts of interest are not only problematic from the perspectives of transparency and expectations of reciprocity, they also serve to undermine trust in health professionals and professional associations that directly or indirectly receive support.
Criticisms about the WCHP raised by ‘empirical sceptics’ [424] revolve around three major issues: inaccuracy, ineffectiveness and unintended harmful consequences. The criticisms about inaccuracy focus on questions about the veracity or interpretation of data on changes in average body weight and the relationships between body weight, morbidity and mortality [2, 3, 79, 441, 444, 445, 491-494], the inappropriateness of the terms and language used to describe the extent of these changes (including the ‘epidemic’ discourse) [79, 107, 413, 423, 485, 495], and the misrepresentation of correlation as cause [3, 26, 57, 441]. Basham and Luik [423] contend that,

> Some in the public health community believe that deliberate exaggeration or, indeed, misrepresentation of the risks of diseases or certain behaviours or our capacity to prevent or treat them on a population-wide basis is justified, if not demanded, in the interests of health (p. 244).

They express significant concern about these practices and go on to argue that ‘the implications (of these practices) ... for science policy and for evidence-based medicine dwarf those of any obesity epidemic, real or imagined’ [423] (p. 244).

The second set of ‘empirical criticisms’ [424] point to the ineffectiveness of the ‘war on obesity’ and ‘obesity prevention’ programs. Critics point to the lack of evidence of effectiveness for weight loss programs at the individual level, and obesity prevention programs at the group, community and population level [449, 454, 464, 491, 496, 497]. Some of this evidence was reviewed above. The third major set of criticisms draw on the empirical evidence of harms arising from the WCHP including body dissatisfaction, disordered eating, weight cycling, stigma and body size discrimination [20, 363, 384, 466-468, 482, 494, 498-502]. Some of the evidence related to this criticism was reviewed above.

Although the body of literature from the ‘obesity sceptics’ [424] in critical weight studies and fat studies is growing rapidly, it would be a mistake to characterise their interactions with ‘obesity epidemic entrepreneurs’ [421] as a debate. Most proponents of the weight-centred health paradigm are not even aware of opposition to the
paradigm [424]. There are recent examples of this situation changing, with ‘obesity epidemic entrepreneurs’ [421] engaging in debate with ‘obesity sceptics’ [424] online, in print and in person [423, 488, 503].

2.3.3 Weight-neutral health paradigm

2.3.3.1 Review of the Health at Every Size paradigm

An alternative to the WCHP has emerged in recent years. Known as the Health at Every Size (HAES) paradigm, this weight-neutral approach moves the focus away from weight and towards health and wellbeing [7, 20-28]. The Health at Every Size paradigm supports processes that enhance the health of all people, irrespective of their body size or weight. It does not contend that people are healthy at any size; instead the approach contends that people at any size can focus on improving their health by adopting behaviours that are not focused on body weight. This paradigm has evolved from what was initially called the non-diet movement [29]. The values of the Health at Every Size paradigm have been proposed by a range of writers [7, 21-23, 26-28, 57, 504] and include holistic, ecological health, size diversity, healthy eating and joyful movement.

The value of holistic, ecological health is enacted by the principle of maximising emotional, physical, psychological, social, spiritual, occupational, economic and environmental health and wellbeing for individuals of all sizes and communities. The value of size diversity is enacted by respecting and appreciating the rich diversity of body shapes and sizes (including one’s own!), rather than the pursuit of an idealised weight or shape. The value of healthy eating is enacted by eating based on internal cues of hunger, satiety, pleasure, appetite and individual nutritional needs rather than on external food plans or diets for weight loss. The value of joyful movement is enacted by enjoying individually appropriate, life-enhancing, enjoyable physical activity, rather than following a specific routine of regimented exercise for the primary purpose of weight loss.
Proponents of the HAES paradigm claim that it is effective in improving various health indicators for individuals. Eight studies [18, 499, 500, 501, 502, 503, 504, 505] have been identified that used a randomised control trial to test a HAES program against standard care or alternative obesity treatment options in individuals. A review of six of these studies [20] together with the results from other studies published since [505, 506] demonstrated that the HAES approach was as effective or superior to the alternative approach in improving many health indicators. Physiological factors improved included systolic blood pressure [27], diastolic blood pressure [507] and low density lipoprotein [27]. Psychological factors improved included self-esteem [27, 507], depression [27], body dissatisfaction [27, 507], body image [27], body esteem related to appearance [506], body esteem related to weight [506], interoceptive awareness [27], depression [507, 508], anxiety [508], eating-related psychosocial pathology [508], perception of self-control [508], and quality of life related to weight [506]. Behavioural factors improved included binge eating [27, 506, 507], disinhibition [509], susceptibility to hunger [509], global disordered eating [505], intuitive eating [505] and moderate level physical activity [27].

2.3.3.2 Critique of the Health at Every Size paradigm

As with the WCHP, critics of the Health at Every Size paradigm have expressed their concerns with the accuracy and consequences of adopting this alternative, weight-neutral paradigm. In many cases these criticisms have been not been framed explicitly as criticisms of the Health at Every Size paradigm, but rather of the ‘fat acceptance’ movement [425]. The HAES paradigm and fat acceptance movement are not synonymous, with fat acceptance focusing more broadly on the social and political issues related to size diversity, compared to the HAES paradigm which focuses specifically on improving health. However there is a dearth of published literature that explicitly critiques the HAES paradigm. The only published article identified in this literature review looked at the opposing viewpoints of HAES and WCHP proponents [425]. As such, some of the criticisms of the ‘fat acceptance’ movement as they relate to the principles of HAES have been included in this review.
The primary criticism of the HAES paradigm is that it is simply incorrect to assert that the relationship between health and body weight is both complex and contested. Anti-obesity proponents claim that there is such an enormous volume of studies that demonstrate the simple relationship, that it makes no sense to even question it [425]. One anti-obesity researcher illustrated their incredulity about the writings of HAES researcher Paul Ernsberger,

He took this position that obesity was not bad for you. You know that runs counter to a thousand articles in the literature that have been well done. Where does somebody like that get off saying something like that, unless he refutes each of these articles? ... We’re talking about four national health surveys, done on thousands of people. We’re talking about the Nurses Health Study, the Health Professionals Study, any number of epidemiological studies, a fair number of clinical studies done in Europe. I mean, are these people all deluded or what’s the problem? [425] (p. 902).

This is indicative of the responses to academic articles published in high quality scientific journals that question the veracity of the WCHP. For example, one of the responses to an article questioning the WCHP published in the International Journal of Epidemiology [79] asserted that: ‘The suggestion that there is growing ‘concern’ about the validity of the serious health issues associated with obesity is really quite bizarre...’ [510] (p. 79).

The scientific or medical credibility of HAES proponents is also used as a form of criticism of the HAES paradigm. The WCHP centres on the medical or health related claims regarding body weight. As such support for the WCHP is published extensively in medical journals by anti-obesity researchers. These researchers assume what Saguy and Riley call an ‘automatic advantage in credibility struggles’ [425] (p. 903). In contrast, one of the most widely publicised books by a HAES researcher was written by Paul Campos, a professor of law who developed his HAES position by virtue of a critical examination of the evidence about weight and health in preparation for a legal trial [2]. As a result of his skills in analytical and critical thinking honed through a career in law, Campos has developed a high level of expertise in the evaluation of medical evidence. However Campos’s credibility and legitimacy have been questioned, with
one anti-obesity researcher describing Campos as ‘one lawyer with no experience and no medical training’ [425] (p. 903) and another critic stating that he has,

...no apparent credentials in medicine or public health (from which) to challenge medical researchers or public health professionals who caution about the health hazards of obesity [425] (p. 903).

Campos is not the only HAES researcher to have his credentials questioned. The article published by Campos et al. in the highly ranked International Journal of Epidemiology [79] was co-authored by a sociologist (Saguy), a clinical biomedical researcher (Ernsberger), a political scientist (Oliver), and a kinesiologist and public health specialist (Gaesser). Despite the range of disciplines represented in the team of authors, the public health and biomedical credentials of the authors were subjected to criticism from a number of respondents to this article. One indicative response stated,

It is unusual to find academics concerned chiefly with legal, social, political, and educational issues seeking to challenge the whole arena of the epidemiology, clinical, and public health aspects of the obesity problem [510] (p. 79).

This respondent, as did many others, clearly overlooked the significant epidemiology, biomedical and public health credentials of two of the five authors, and dismissed the ‘rights’ of the other three to criticise the dominant weight-centred health paradigm.

The body weight of proponents of the Health at Every Size paradigm is also regarded as a basis for criticism by proponents of the weight-centred health paradigm. Fat people are regarded as being incapable of speaking objectively about weight and health. Anti-obesity researchers claim that the fact that most of the fat acceptance activists in the public eye are fat, automatically discredits them because they are ‘simply making excuses for their weight’ [425] (p. 906). Campos [2] and Gaesser [3] recount similar stories about their perceived credibility as HAES researchers with prospective publishers. Both men are not fat, and so were deemed to be acceptable to their publishers. However, it was made clear to both of them (independently, by two
different publishers) that had they been fat, their manuscripts would not have been published. Their books would have been viewed as a rationalisation of being fat by authors with a ‘personal axe to grind’ [425] (p. 906).

Even Professor Steven Blair, the highly credentialed former Director of the Cooper Aerobics Institute, who is widely regarded as one of the world’s foremost scientific researchers on the relationship between physical activity and health, has been subjected to slights about his academic credibility due to his body size. The simple rationale provided by one anti-obesity researcher for their reluctance to acknowledge the importance of physical activity to health was that ‘Steve Blair is fat’ [425] (p. 907).

Further to these criticisms about accuracy and credibility are those related to responsibility. Proponents of the weight-centred health paradigm argue that it is irresponsible to suggest that people stop focusing on trying to control their body weight. They so firmly believe that the risks of obesity are so great that even if there are potential negatives associated with the paradigm, these are outweighed by the risks of doing nothing. For example, in response to Bacon’s HAES article on Medscape, a respondent states that,

\[
\text{The content of Dr. Bacon's statement borders on irresponsibility. The last thing that the overweight and obese need to hear is a nutritionist almost extolling the virtues of maintaining their excess weight and perhaps making arguments for the health benefits of adipose tissue [511] (p. 46).}
\]

The final major criticism of the Health at Every Size paradigm is that the paradigm suggests that people let go of the concept of weight as an indicator of health, together with all of the restrictive and damaging weight control behaviours that accompany this concept. Critics argue that the Health at Every Size principle of removing the focus from ‘ideal weight’ is tantamount to ‘giving up’ on healthy behaviours, and indeed encouraging the wholesale adoption of excessive eating and inadequate physical activity. Fumento goes so far as to argue that ‘The fat acceptance people ... have turned ... two of the Seven Deadly Sins – sloth and gluttony – into both a right and a
badge of honour’ [512] (p. 130). This is consistent with the assumptions of the biomedical health paradigm, that left to their own devices, and without the advice and information provided by health practitioners on what behaviours should be adopted, people will naturally adopt risky behaviours such as excessive eating and sedentary lifestyles [57].

Abhorrence of ‘giving up’ is also cited by some anti-obesity researchers who acknowledge the health risks and low probability of success of weight control methods, but nonetheless claim that it is not possible to just ‘give up’ on people. In illustrating this concept, a number of anti-obesity researchers draw an analogy between obesity and cancer (thereby also perpetuating the belief that obesity is a serious and fatal disease). One anti-obesity researcher rationalised,

If somebody has a disease that can be really horrible for them, like cancer, and the treatments don’t work very well, you don’t give up treating, because you try to do the best you can [425] (p. 891).

Criticism of the Health at Every Size paradigm has recently been extended to the specific principles of the paradigm. In a post on the blog ‘This Sociological Life’, Lupton raised a number of concerns about the paradigm from a sociological perspective [513]. She argued that the Health at Every Size principles, with their explicit focus on attaining good health, can be perceived as healthism, an ideological position in which individuals are deemed to have total responsibility for their health and are morally obliged to pursue the goal of good health. The ‘healthist’ tendencies of the Health at Every Size paradigm have also been criticised by others [514-516]. Brady et al. [514] argued that,

HAES cannot be offered up as an emancipatory alternative to today’s prevailing weight-centered, healthist discourse if it is understood and practiced as if it were simply another, albeit weight-neutral, choice for individuals to fulfill a duty to be healthy (p. 347).
Further criticism from Lupton [513] focused on the principle that people tune in to their natural desires and cues related to eating, as this does not acknowledge the social, cultural and other drivers of food consumption. She also criticised the principle of respecting and appreciating the rich diversity and natural distribution of body shapes and sizes. She particularly focused on the application of this principle to the self, and argued that asking people to value or love their own body does nothing to address the social stigma and discrimination against fat bodies [513].

One criticism that has been applied to both the Health at Every Size paradigm and the weight-centred health paradigm is that scientific, objectivist knowledge is privileged over other forms of knowledge in arguing for and against the claims of the weight-centred health paradigm. LeBesco has argued that the use of scientific arguments by critical weight scholars to refute many of the scientific claims made by anti-obesity scholars simply reinforces fatness as a biomedicalised and pathologised state [517]. Brady et al. counter that the use of scientific arguments does not necessarily constitute healthism, though do not deny that such arguments can be used in this way [514].

In conclusion, the concerns regarding the Health at Every Size paradigm are similar in many ways to those expressed about the weight-centred health paradigm. Criticisms of both paradigms focus on claims about the accuracy of scientific research and its interpretation, the effectiveness of operating within that paradigm, and the consequences that arise from programs and policies enacted from within the paradigm.

2.4 Conclusion

This chapter reviewed the literature regarding the application of three health promotion values to weight-related public health initiatives. The review demonstrated that evidence of need for weight-related public health initiatives relies on the use of a questionable system of classifying people according to BMI categories, and studies fail to control for many of the confounding factors associated with health outcomes such as life expectancy, morbidity and mortality. In addition, there is considerable evidence
pointing to an obesity paradox, whereby people categorised as obese have better health outcomes than those categorised as health weight. The evidence of need is therefore mixed and ambiguous.

The review then focused on the literature regarding the evidence of effectiveness of weight-related public health initiatives, and found that although anti-obesity researchers claim that there is strong evidence for the effectiveness of obesity prevention interventions, in fact the data tell a different story and suggest a far more sober conclusion about effectiveness. Similarly, weight loss strategies adopted by individuals have a very low success rate beyond the short term, with most people regaining lost weight and a considerable proportion gaining even more weight than was lost.

The review of literature related to the third health promotion value of evidence of potential harms of weight-related public health initiatives found that there is a broad range of physical, psychological, behavioural and social harms associated with such initiatives and the broader weight-centred health paradigm. Some of these harms include body dissatisfaction, dieting, disordered eating, eating disorders, the use of diet drugs and products, bariatric surgery and delayed health care. In addition, the social harms of weight-centred approaches include bias, prejudice, stigma, harassment and discrimination.

Coverage of obesity in the popular media has escalated dramatically since the turn of the 21st Century, despite a number of large studies now demonstrating that prevalence rates of obesity have levelled off in many parts of the world since that time. The popular media has tended to frame body weight in a similar way to anti-obesity researchers, with a focus on obesity as resulting from lifestyle choices and exhortations for people to control these choices in order to attain or maintain a healthy weight.
The representation of body weight as central to health and the assumptions and beliefs that extend from that positioning characterise the weight-centred health paradigm. This paradigm has been critiqued on ideological, ethical and empirical grounds. An alternative weight-neutral health paradigm has developed in recent decades. Early evidence suggests that the Health at Every Size approach is more effective at improving health and wellbeing than weight-centred approaches, and does not result in harm. However this paradigm has also been critiqued on ideological grounds. Despite the emergence of this alternative paradigm, the weight-centred health paradigm remains the dominant within the health sector and in society at large. It is strongly influencing public health policies and programs, and it is therefore necessary to subject the paradigm to continued critique, particularly from a health promotion values and principles perspective. The next chapter reviews some of the weight-related public health initiatives developed at the international and national level in Australia over the past two decades, and existing critique of such initiatives from a health promotion perspective. It concludes with a discussion of the current gaps in the literature related to the examination of weight-related public health initiatives.
Chapter 3  Weight-related public health initiatives

3.0  Introduction

The previous chapter reviewed the literature related to the health promotion values of evidence of need, effectiveness and potential harms from weight-related public health initiatives in general. It examined the increased coverage of obesity in the media and proposed a paradigmatic analysis of weight related health paradigm. This chapter reviews some of the specific weight-related public health initiatives developed at the international and national level in Australia since the 1990s. Given that the discipline of health promotion is primarily responsible for implementing weight-related public health policies and programs, it would be reasonable to anticipate that these policies and programs have been critiqued from a health promotion perspective. The final section of this chapter reviews existing critique of weight-related initiatives from a public health and health promotion perspective.

3.1  International level

Obesity is now presented as an issue of global concern, and the term ‘globesity’ [518] has been used to suggest that everyone, everywhere is at risk of becoming too fat [2]. The World Health Organisation (WHO) began to address obesity in 1997 with the publication of the report *Obesity: preventing and managing the global epidemic* [71]. As described above, this was the first document from WHO to include the BMI classification system. This was followed in 2003 by the report *Diet, Nutrition and the Prevention of Chronic Diseases* which was developed jointly with the United Nations Food and Agriculture Organisation [14]. The following year, WHO released the *Global Strategy on Diet, Physical Activity and Health* urging governments around the world to tackle the global epidemic of obesity [519]. The *Global Strategy* was based firmly in the weight-centred health paradigm, and was instrumental in setting the agenda for
national initiatives around the world. There is no evidence of programs operating within the Health at Every Size paradigm at the international or multi-country level.

3.2 National level

All of the major English speaking industrially developed countries have instituted weight-related public health policies and programs in the past twenty years. In this section the major government public health policies and programs from Australia are reviewed as this was the context for the study.

Australia developed its first national anti-obesity action plan in 1997 [520]. Acting on Australia’s Weight was a strategic plan for the prevention of overweight and obesity. Despite being published by the National Health and Medical Research Council, the plan failed to receive much attention from policy makers and practitioners. In the next five years however, the climate surrounding the discussion on weight changed significantly. In November 2002, the Australian, State and Territory Health Ministers declared that ‘overweight and obesity are significant public health problems that threaten the health gains made by Australians in the last century’ [521] (p. i).

The health gains referred to are significant, with Australians on the whole enjoying excellent health status, as evidenced by health indicators such as life expectancy. Australians currently have one of the highest life expectancies in the world. Female life expectancy of 83 years is third highest in the world after Japan (85 years) and France (84 years) and male life expectancy of 78 years is equal highest with Japan and Iceland. Life expectancy in Australia is a little higher than countries such as Canada, Norway, and Germany, and higher again than in the United Kingdom and the USA, which rank 20th and 24th respectively [522].

The excellent health status of Australians was perceived to be at risk from the new obesity epidemic and in response, the Health Ministers agreed to establish a National Obesity Taskforce. The role of the Taskforce was to develop a national action plan for tackling overweight and obesity, and to identify roles and responsibilities for implementing the national plan. In 2003 the Australian, State and Territory Health
Ministers signed off on the action plan called *Healthy Weight 2008 – Australia’s Future: the National Action Agenda for Children and Young People and their Families* [521]. Over the following years Governments developed a range of public health programs focused on increasing healthy eating and physical activity.

In 2006 the Australian, State and Territory Governments developed the Australian Better Health Initiative, which aimed to reduce the risk factors for heart disease, type 2 diabetes and some cancers. The major public health initiative funded under this program is the *Measure Up* social marketing campaign [433]. Although there are numerous risk factors for each of these diseases, as the name suggests *Measure Up* focuses on the measurement of health through body weight and waist circumference alone.

In late 2007 there was a change of government in Australia and the newly elected Labour Government continued the focus on obesity. One of the new Health Minister’s first acts was to attend the *Tackling Childhood Obesity in Australia Summit*. In her speech at the summit she announced that ‘obesity prevention’ would be added to the list of National Health Priority Areas [523].

Early in 2008 the new Health Minister requested that the House of Representatives Standing Committee on Health and Ageing ‘conduct an inquiry into obesity in Australia’ including ‘the increasing prevalence of obesity in the Australian population … future implications for Australia’s health system’ and recommendations for ‘what governments, industry, individuals and the broader community can do to prevent and manage the obesity epidemic in children, youth and adults’ [524] (p. 6).

Concurrent with this process, the Prime Minister announced the formation of the National Preventative Health Taskforce whose objective was to ‘develop a comprehensive and lasting Preventative Health Strategy by mid 2009’ and in the first instance to ‘focus on how to reduce harm flowing from obesity, tobacco and alcohol’ [525] (p. ii). Hence in 2008 there were two major national initiatives focusing on
obesity. The processes were designed to be complementary, rather than duplicative. The House of Representative’s inquiry was conducted by a group of politicians and served as a ‘platform for many stakeholders to share their views and tell their stories’ (p. viii) and as a result to ‘make general recommendations on what governments, industry, individuals and the broader community can do to reverse our growing waistlines’ [524] (p. viii). The National Preventative Health Taskforce was comprised of a ‘panel of experts’ who aimed to develop comprehensive technical recommendations and an action plan for addressing the burden of disease caused by excessive alcohol consumption, smoking and obesity. Their focus was on primary prevention and recommendations covered both health and non-health sectors [525].

In late 2008, the National Preventative Health Taskforce published a discussion paper Australia: The Healthiest Country by 2020 and three technical reports focused on obesity, tobacco and alcohol [525]. The discussion paper presented a summary of the content of the technical reports. The technical report on obesity, titled Obesity in Australia: a need for urgent action, proposed the case for obesity prevention, and then focused heavily on ‘what is required to address the problem’ and potential initiatives. The discussion paper and the technical report formed the basis of consultation with health experts, industry and the public [16].

The issue of obesity was again on the political agenda in November 2008 at the Council of Australian Governments (COAG) meeting. At this meeting, Australian, State and Territory Governments made a commitment to establish a Health Prevention National Partnership. Despite the Partnership name suggesting the goal of preventing health, the Governments were actually making a commitment to ‘improve the health of all Australians’, and specifically to ‘reduce the proportion of people who smoke, are at unhealthy bodyweight, and/or do not meet national guidelines for physical activity and healthy eating' [526] (n.p.). At the COAG meeting the Australian Government agreed to contribute funding to the Partnership of $448.1 million over four years, and $872.1 million over six years. As part of the COAG
agreement, the Measure Up anti-obesity social marketing campaign was extended until 2013.

In May 2009 the House of Representatives Standing Committee on Health and Ageing presented the report of the Obesity Inquiry titled Weighing it up: Obesity in Australia [524]. After describing the range of personal, social and economic costs of obesity to Australia, the report included a list of 20 ‘general recommendations on what governments, industry, individuals and the broader community can do to reverse our growing waistlines’ (p. viii).

In June 2009 the National Preventative Health Taskforce published Australia: The Healthiest Country by 2020– National Preventative Health Strategy – the roadmap for action [527], detailing the case for prevention, targets, key action areas and specific recommendations for each of the three priority issues of obesity, alcohol and tobacco. With respect to obesity, the case for prevention and the 10 key action areas were drawn from the technical report published the previous year. For each of the key actions a range of specific recommendations, allocation of responsibility, staged implementation plan and performance targets were presented. All of the key action areas for obesity prevention focused on strategies to increase healthy eating and physical activity.

In May 2010 the Australian Government published Taking Preventative Action – A Response to Australia: The Healthiest Country by 2020 – The Report of the National Preventative Health Taskforce [432]. Taking Preventative Action responded to all 35 key action areas and 136 specific recommendations included in the Taskforce report, including the 10 key action areas and 33 specific recommendations for obesity prevention. Taking Preventative Action also committed to make available $872.1 million through the subtly renamed National Partnership Agreement on Preventive Health. Of this over $600 million would be available to the State and Territory Governments, half to be paid up front and the other half to be paid after they had
demonstrated achievements against the targets on weight, physical activity, fruit and vegetable consumption and smoking.

In 2011 phase two of the Measure Up social marketing campaign was launched [528]. As with phase one of this campaign, phase two, titled Swap It, Don’t Stop It, explicitly focused on body weight. The central premise of the Swap It, Don’t Stop It campaign is that you ‘can lose your belly without losing all the things you love’ by making simple swaps of behaviours related to eating and physical activity.

Almost four years after the publication of the House of Representatives Standing Committee on Health and Ageing report Weighing it up: Obesity in Australia, the Australian Government Response to Weighing it up: Obesity in Australia Report was released in February 2013 [529]. The report included responses to the 20 recommendations included in Weighing it up. Given that the Weighing it up and National Preventative Health Strategy reports were released around the same time in 2009 and included a number of similar recommendations, and that the Government had presented a detailed response to the latter in Taking Preventative Action, most of the Government’s responses referred to initiatives described in Taking Preventative Action.

In this chapter thus far, I have described the weight-related public health initiatives developed by WHO and at the national level in Australia since the 1990s. The discipline of health promotion is primarily responsible for implementing these weight-related public health initiatives, and as such it would be reasonable to anticipate that such initiatives have been extensively critiqued from a health promotion perspective. As described earlier, health promotion is a discipline that is underpinned by a range of philosophical, ethical and technical values and principles, and it is important that the application of these values and principles is evident in health promotion best practice. It would therefore be expected that weight-related public health initiatives have been critiqued through the lens of the values and principles of health promotion. However most critiques of weight-related public health initiatives emanate from
epidemiological, medical, physical education, nutrition, gender studies, sociology and political science perspectives. Of the few critiques that come from a public health perspective, most refer to public health ethics as the lens of critique. These critiques are reviewed in the following section.

3.3 Critique of weight-related public health initiatives from a health promotion perspective

Cohen et al., argue that focusing on overweight and obese people is damaging to people’s health, and is ineffective in addressing the broader social and economic issues that influence people’s lives and thereby create health [530]. They propose the reorientation of health promotion away from ‘the O word’ (obesity) and blaming individuals for their body weight, towards a focus on the socio-environmental conditions that enable healthy eating and active living [530].

MacLean et al. [468] do not go as far as Cohen et al. who argue for a complete shift away from a focus on body weight. Instead, they argue that individualist approaches to obesity are stigmatising and so reducing the obesogenic environment should be the focus of attention instead. They do however recognise that this too can be stigmatising. They propose that public health planners and practitioners need to: evaluate programs for impact on stigma; be aware of the potential impact of separating out the overweight/obese for targeted interventions at any intervention level; provide training to health professionals, educators and others on stereotyping and accurate information about obesity; screen public health mass communication messages for stereotyping, blaming and misinformation; include programming efforts to prevent stigma in all interventions; bring stakeholders (overweight and obese people) to the table; monitor multiple intervention programs for coherence and consistency of non-stigmatizing messages and approaches; and consider multiple layers of stigma.

O’Dea argues that health promotion programs focused on childhood obesity prevention have significant potential to bring about unintended but nonetheless
harmful outcomes [531]. She states that potential harms include increased body image dissatisfaction and disordered eating, and that health promoters should be cognisant of the need to first, do no harm.

Health promotion practitioners Jon Robison and Karen Carrier critique the weight-centred health paradigm in relation to the discipline of health promotion and highlight numerous empirical and ideological issues [57]. Robison and Carrier also introduce the Health at Every Size paradigm, and provide evidence that supports this approach to health.

Puhl and colleagues at the Rudd Centre for Food Policy and Obesity have researched and written extensively about obesity stigma, and highlight the implications for public health specifically [363]. They contend that,

Despite decades of science documenting weight stigma, its public health implications are widely ignored. Instead, obese persons are blamed for their weight, with common perceptions that weight stigmatization is justifiable and may motivate individuals to adopt healthier behaviours [363] (p. 1019).

A series of articles published in the journal Critical Public Health examined public health policy and practice across the ‘axis of evil’ of alcohol, tobacco and obesity [532]. Whilst the series included more papers on alcohol and tobacco, the three papers that focused on obesity presented broad critiques of public health framing and responses to obesity, and highlighted many of the ideological criticisms described above [424, 477, 533].

O’Reilly [534] conducted a discourse analysis of five public health policy documents related to the development of proposed an Obesity Reduction Strategy in the Canadian province of British Columbia. She found that despite the presence of some weight-neutral components of the documents, the discursive, textual and social practices used in the documents reflected an oppressive, stigmatizing and discriminatory discourse [534]. On this basis, O’Reilly postulates that shifting the
thinking of policy makers will require substantial effort and evidence against the weight-centred health paradigm. She then proposes a number of policy options to assist with that process.

Three Canadian Centres of Excellence related to women’s health – the British Columbia Centre of Excellence for Women’s Health, Prairie Women’s Health Centre of Excellence and the Atlantic Centre of Excellence for Women’s Health – released a report in 2013 titled Rethinking Women and Healthy Living in Canada [535]. The report presents the results of a sex- and gender-based analysis (SGBA) of women’s health in Canada. The SGBA framework includes the dimensions of sex, gender, diversity and equity. The report includes a critical review of the discourse of healthy living and posits that the term ‘healthy living’ is often used interchangeably with the term ‘health promotion’ as it has become the dominant paradigm in health promotion. The report finds that ‘the healthy living discourse is neither simple nor, ultimately, a solution’ and that it ‘poses considerable risk to health and wellbeing’ (p. 46). The healthy living discourse is criticised for resulting in individual blaming and therefore individual-focused initiatives, rather than initiatives that address structural, systemic and environmental barriers to nutrition and physical activity. The report finds that the use of BMI categories results in inaccurate classification of people as ‘diseased’ or ‘healthy’, and challenges the link between body weight and chronic diseases. The report also describes how the persistent attention to body weight in healthy living initiatives masks the risks of weight loss, dieting and body dissatisfaction, and entrenches weight-related stigma. As with other critiques, the report finds that the opportunity cost of healthy living initiatives is that by focusing solely or predominantly on weight control, they divert attention away from the positive impact of good nutrition and physical activity on physical, emotion and social health and wellbeing for all women and girls. The report concludes that healthy living initiatives ‘run the risk of deepening inequity and causing harm to women’ (p. iv). The report calls for healthy living to be reframed ‘to embrace a broader understanding of health and health issues’ (p. iv).
Policy archaeology is a form of policy analysis that posits that social problems are social constructions and critically examines how a social problem is made manifest, nameable and describable. Piggin and Lee used policy archaeology to consider the dominant ideas included in the documents that informed the development of the Change4Life health promotion program in the UK. This was followed by narrative semiotic analysis to examine how these documents contradicted or were inconsistent with the resulting Change4Life program [536]. Their primary finding was that in the journey from background documents to the Change4Life program, obesity was reframed and rendered invisible. Despite the removal of all text and visual references to obesity and fatness, the authors found that the program was built on an ‘obesity agenda’ and steadfastly remained an ‘obesity prevention’ program. Although the rationale for the removal of any signs related to obesity was ostensibly about reducing stigma and increasing motivation for change, the authors argue that this decision effectively reinforced simplistic ideas about the causes of body weight (and therefore both the moral overtones and stigmatisation associated with not having the ‘right’ body), and nullified any opportunity to increase the public’s knowledge about critical obesity discourses.

White also analysed the UK’s Change4Life health promotion program and found that the program illustrates cultural anxieties about immorality, disease, civilisation and death [537]. The author argues that through programs such as Change4Life, fatness is increasingly being positioned as anti-social and a threat to the viable future of society.

Since the turn of the 21st century, a number of frameworks for health promotion ethics [56], public health ethics [50, 64, 538] and health policy ethics [539] have been developed to help policy makers and practitioners think through the multitude of ethical issues inherent in public health policy and program planning, implementation and evaluation. In 2007 the Nuffield Council on Bioethics published the document Public health: ethical issues, and proposed a ‘Stewardship Model’ for public health ethics to guide the development and implementation of public health programs by the
This model was specifically designed for application to obesity prevention interventions.

The Stewardship Model includes ethical principles such as well-being, care of the vulnerable, empowerment, autonomy, fairness and equality, liberty and self-determination, openness and privacy, beneficence and non-maleficence. It also includes ethical principles that have a technical component, such as the use of multiple health promotion strategies, and the use of evidence in decision-making. Within the ethical principle of evidence-based decision-making, the Stewardship Model states that firstly, sufficiently robust evidence is required to establish a causal link between a suggested risk factor and an illness after controlling for confounding factors, and secondly, public health programs must be based on evidence of effectiveness.

Following the description of the Stewardship Model, the document applies the model to four cases studies including obesity. The obesity case study is completely consistent with the weight-centred health paradigm, and begins with a description of obesity, its causes, consequences and epidemiological trends. There is no acknowledgement of the contested nature of the evidence presented in this section, and no critical reflection on the extent to which the model’s own requirement for sufficiently robust evidence to establish a causal link between a suggested risk factor and an illness after controlling for confounding factors is met.

The case study outlines a range of food and physical activity strategies consistent with the weight-centred health paradigm. There is no discussion of the application of the ethical principles in the Stewardship Model to the food related strategies. For the physical activity related strategies, it is acknowledged that ‘although there is considerable enthusiasm for many of these strategies, there is little robust evidence about their effectiveness at increasing physical activity or reducing obesity levels’, but ‘little evidence that they create significant harms or curtailments of individuals liberties’ and therefore they ‘do not believe there are ethical objections to such
strategies’ [64] (p. 92). This is followed by the proviso that the strategies should be monitored for effectiveness and potential harms.

In the next section of the Stewardship Model document, social marketing strategies are subjected to a more thorough ethical analysis, with potential issues such as undue ‘nannying’ and stigmatising of overweight and obese people being highlighted. The effectiveness of social marketing strategies is also questioned, and the potential for negative impact on inequalities is highlighted. Urban planning strategies to increase physical activity are supported, and whilst it is acknowledged that some of these may place restrictions on people’s freedom, it is claimed that these are outweighed by the public health benefits.

The case study then presents a section on reducing inequalities, and again the issue of potential stigmatisation is highlighted. The following section on interventions for protecting vulnerable groups focuses specifically on children, and again draws on the tenets of the weight-centred health paradigm and the application of healthy eating and physical activity strategies in schools in particular. In this section the only reference to the ethical principle of non-maleficence is the requirement that the weighing and measuring of children be managed in a way that minimises risk of stigmatisation. This is in response to evidence suggesting that overweight and obese children in particular are declining to participate in weighing and measuring programs. The only other reference to the ethical principle related to evidence acknowledges that the evidence of effectiveness of school based strategies is incomplete, but ‘because the need being addressed is an important one, it is desirable to explore the potential of promising policies’ [64] (p. 94).

The section of the case study on interventions for protecting others against harm focuses on the ethical issues associated with children who ‘become obese as a direct result of their parents’ preference for food and exercise’ [64] (p. 95). The document then cites a BBC news story as evidence of childhood obesity as a form of neglect. These statements are not consistent with the Model’s ethical principles on evidence
and the requirement for sufficiently robust evidence to establish a causal link between a suggested risk factor and an illness, after controlling for confounding factors.

The treatments and costs of obesity are addressed in the following section of the case study. Through the use of quotations, obesity is firstly attributed to choice and free will thereby justifying restrictions on access to resources provided by the National Health Service for obese people. However the next quotation challenges these views and the document goes on to conclude that it would be unethical to deny obese people access to NHS treatment for problems associated with obesity. This is the first section in which the complexity of body weight is acknowledged, together with the inability to determine the extent to which a person’s weight is due to factors under their own control. In summary, the case study is almost completely consistent with the weight-centred health paradigm, and addresses a limited number of ethical issues within the Stewardship Model.

A relatively small number of papers have critiqued public health obesity prevention interventions with explicit reference to public health ethics, as distinct from clinical ethics [540, 541]. Some of these focused on public health obesity prevention interventions generically, and some refer to specific interventions.

Holm reflected on public health obesity prevention interventions generically and determined that there are two basic ethical problems [542]. The first problem relates to when intervening to improve an individual’s health can be justified, even if they do not want the intervention, and the second relates to negatively affect people’s health in order to benefit others or the common good. Holm, who is clearly positioned within the weight-centred health paradigm, argues the case for ‘soft paternalism’ which involves giving unsolicited or unwanted information or making the healthy choice the easy choice. The author believes that with respect to obesity prevention, it is less ethically problematic to provide information that can assist people to make good choices, than to take those choices away.
Holm [542] raises issues relating to the ethics of ‘targeting high-risk groups’ with public health obesity prevention interventions, and highlights the potentially stigmatizing effects of being identified as ‘high risk’. This is compounded by the existing high level of stigma faced by obese people. Issues of distributive justice are also raised by Holm, when resources are focused on those identified as being in the high-risk group, and those not identified as being part of this group but have similarly high levels of risk, do not have access to the same resources. Holm argues that unless the high-risk groups ‘can be so precisely defined, identified and targeted that all high-risk individuals are included’ (p. 208), it is potentially problematic to focus resources on high-risk groups.

Holm [542] poses a series of ethical questions about public health obesity prevention interventions and their relationship to body image. Holm asks: what is the strength of the evidence base for promoting a specific (slim) body shape; what are the side effects of promoting this body shape; and what are the risks of stigmatization of those without this body shape? Holm does not address the first question, but in answer to the second, Holm suggests that ‘it is difficult to promote one body shape as good without implying that other shapes are bad’ (p. 210). However the author is ‘unclear whether it is possible to prevent people from linking bad body shape to personal and moral badness’ (p. 210).

In a paper by ten Have et al. [543] the authors cite empirical data about the prevalence and cost of overweight and obesity, without acknowledgement of their contested nature. On the basis of these ‘facts’ they argue that there are strong ethical reasons for pursuing the prevention of overweight and obesity. However they acknowledge that many current interventions are not based on evidence of effectiveness, and are subject to ethical debate. The authors sampled 58 public health interventions and two public health policy proposals designed to prevent overweight and obesity and analysed them for potentially problematic ethical issues. Some of the programs analysed would not normally be classified as public health interventions, for example the firing of flight attendants and police officers on the basis of their body weight, the placement of children in the obese BMI category in foster care, and an advertisement
for Jamie Oliver’s television program on school dinners. However the broad inclusion criteria meant that the sample of interventions covered a much greater range of actions than would usually be considered as falling within the scope of public health interventions.

The analysis of the programs for potential ethical issues was followed by discussion of the identified ethical issues in two meetings of ‘experts’, including policymakers, physicians, health insurers, researchers, ethicists and representatives of organisations of obese people. Some of the ethical issues identified through this process include those empirical criticisms described above relating to ineffectiveness, and unintended physical and psychosocial harm, stigmatisation and discrimination. In addition the authors identify a range of ideological ethical issues, including the cultural and social value of eating being disregarded, privacy being disrespected, inequalities being aggravated, complexity of responsibilities being disregarded, and liberty being infringed. This study represents the most comprehensive critique yet of public health obesity prevention interventions.

Fry [544] built on the ethical problems raised by ten Have et al. to pose additional ethical questions that must be considered in the justification of public health obesity prevention interventions generically. As with previous authors addressed here, Fry’s arguments are based on the premise of an existing obesity epidemic and the consequent need for intervention, with a focus on the ethical questions related to such interventions. Fry introduces the concept of ‘health identities’ and defined ‘accepted health identities’ as being responsible and aspiring to and pursuing good health, and ‘contested health identities’ as being unhealthy, consuming too much alcohol, drugs and food, and taking health risks. Holm’s concept of a ‘bad body shape’ that exhibits ‘personal and moral badness’ is consistent with the concept of a ‘contested or disapproved health identity’ [542]. Fry argues that both approved and contested health identities are readily observable in public health obesity interventions (and other public health fields). He posits that the construction of the obesity contested
identity is particularly relevant in light of the ‘lack of compelling evidence about the effectiveness of many interventions for reducing obesity’ (p. 117).

Fry acknowledges that the ‘contested health identity’ of obesity is stigmatised, and that the identity includes assumptions about eating junk food and not exercising. However, he then contends that,

...these choices can unintentionally lead to further repressions because those already vulnerable and marginalised groups are seen to be engaged in disapproved behaviours ...for which they need professional assistance in avoiding’ (p. 118).

It appears that Fry himself believes that people in the obese BMI category need professional assistance to avoid ‘disapproved’ behaviours in which they are assumed to engage. Fry raises a further ethical issue: ‘the question of what obese individuals themselves perceive to be the overweight and obesity problem, and their attitudes about acceptable intervention responses’ (p. 118). Finally, Fry calls for the application of the Nuffield Bioethics Council Stewardship Model to public health obesity prevention interventions in Australia in order to determine where they sit on the intervention ladder and whether that positioning is appropriate and acceptable.

Fry’s focus on consumer or community engagement is also evident in Wickins-Drazilova et al.’s [545] exploration of the ethics of evaluating obesity prevention intervention studies in children. The authors argue that given the biological, epidemiological and social complexity of the framing of body weight and its relationship with health, ‘interventions should focus on improvements in diet, exercise and wellbeing rather than on weight loss per se’ (p. S24). With respect to the evaluation of interventions, the authors propose that in order to address the risk of undesirable side effects of obesity prevention interventions, it is ethically imperative to seek the opinions of the people subjected to inventions. This means engaging with the community in ways that go beyond merely obtaining individual consent. Wickins-Drazilova et al. also propose the ethical principle of assessing obesity prevention interventions on the extent to which they empower people, especially those such as
children, who are otherwise often disempowered. Whilst they acknowledge the complexity of both of these aspects of evaluation, they strongly argue that it is unethical for them not to be included in any obesity intervention evaluation, be it top down, bottom up or somewhere in between.

Consistent with the call by Wickins-Drazilova et al. to seek the opinions of those subjected to interventions, Thompson and Kumar [474] investigated individuals’ responses to two public health obesity prevention interventions developed by non-profit organisations in New Zealand. Both programs used social marketing strategies designed to increase fruit and vegetable consumption (5 + a day program) and physical activity (Push Play program). The authors conducted six focus groups, using posters from each of the programs, to investigate how people in the community responded to the messages they received from the programs. The findings raised a number of ethical issues, particularly with respect to the range of unintended consequences, including resistance to perceived pressure to being told what to do, denial of relevance of the messages, creation or heightening of perceptions of undeserving ‘others’, moralising about and stigmatising of fat people and ‘poor’ behavioural choices, and increased inequity in health outcomes.

Thomas et al. [473] investigated the responses of obese people in the community to obesity related public health and individual treatment programs in Australia, including social marketing strategies aimed at reducing waist circumference, increasing physical activity and fruit and vegetable consumption; policy proposals to ban junk food advertising aimed at children; public funding for gastric banding surgery; commercial weight-loss programs; specialised fitness programs; and public funding for personal trainers. Participants highlighted ethical issues of personal freedom being limited, coercion, increased moral judgements about food choices, focus on biological health rather than holistic wellbeing, prioritisation of single physical health outcome (weight) over people’s dignity, lack of understanding of lived experience, stigmatisation and depression as a result of the public health programs, and potential for creating eating disorders. Evidential issues highlighted included emphasis on reductionism and
simplicity rather than complexity, lack of appropriate research prior to the program (the tape measure used in the waist circumference strategy was too small to fit many people), and their preference for future programs to focus on positive aspects of health and wellbeing, rather than body weight.

Catling and Malson [500] investigated the responses of women with an eating disorder to obesity prevention health promotion materials produced by the UK Department of Health, mostly focusing on childhood obesity. The study participants were highly critical of the materials, regarding them as potentially very damaging to people viewing them, and labelling them as ‘anorexogenic’ and ‘bulimogenic’. The four major concerns were that the materials: exacerbated existing cultural and social beliefs about the ‘thin ideal’ and the ‘fat unideal’; justified and even encouraged bullying on the basis of body size; sanctioned and even mobilised eating behaviours that are classed as disordered in people with diagnosed eating disorders but encouraged in people in the obese BMI category; and ignored problems associated with underweight and disordered under-eating. As with the studies by Thomas et al. [473] and Thompson and Kumar [474], this study evaluated the impact of public health obesity prevention interventions on people in the community, and found them wanting with respect to public health ethics.

Walton and Mengwasser [546] tested the application of the Nuffield Bioethics Council Stewardship Model on a public health obesity prevention policy proposal in New Zealand to limit food and beverage marketing to children. The policy proposal specifically focused on statutory regulations on when and where food and beverage marketing to children can take place, taking actions to create commercial-free education facilities, and creating an independent agency to monitor, evaluate and enforce regulations. The authors developed a series of questions designed to help apply the model to the policy proposal and named this the Stewardship Framework. Following the application of the Framework the authors concluded that the policy proposal is justified because,
Childhood obesity is a serious health threat in New Zealand; there is ample evidence for a link between unhealthy dietary practices and food marketing; there is evidence that such an approach promises to be effective; it is minimally intrusive to people’s life and is likely to be cost effective; it helps create health promoting environments; it affects vulnerable groups (children); it will help children overcome unhealthy dietary behaviour; it can potentially contribute to reducing health inequalities through universal measures; it is not coercive and do not reduce foods available; and a recent democratic process showed a stronger voice for, compared with against, regulation of food marketing to children in New Zealand (p 19).

In their discussion, the authors highlight the fact that the assessment of the evidence claims and ethical principles is subject to the values of those applying the framework. The findings of the policy analysis were therefore constructed from the authors’ own values. They acknowledge that ‘if two or more differing sets of stakeholders with varying value sets, were to present their interpretations from applying the framework, this would likely constitute a useful form of issue guide within a deliberative forum’ (p. 20). However, the authors warn that ‘the framing of answers to the Framework questions could easily be used to justify a pre-determined position, and therefore not improve policy outcomes’ (p. 20).

Greer and Ryckeley [547] used Tannahill’s evidence, ethics and theory triangle and the Nuffield Council on Bioethics Stewardship Model to examine the ethical principles associated with the development of specific anti-obesity legislation and litigation in the USA. The authors state that ‘There is no disagreement about the enormity of the obesity epidemic and its impact on the health status of both American and global populations’ (p. 175), and the ethical questions they pose are therefore not related to the construction of the obesity epidemic. Their questions focus instead on the technical level and ask ‘whether public health ethical principals (sic) are being used by health professional advocates to inform the mechanisms of legislation and litigation properly’ [547] (p. 175). They used an ethical lens to examine a range of legislative and litigious initiatives designed to prevent or reduce obesity. Ethical principles used in the analysis included:
1. Meeting demands that policy makers act in a timely manner on the information they have about obesity, while acting within the resources and the mandate given to them by the public;
2. Designing interventions to prevent obesity that respect diverse values, beliefs, and cultures in the community;
3. Providing information needed to inform community decisions on policies or programs;
4. Garnering the consent for policy implementation needed for decisions on policies or programs; and
5. Obtaining the community's consent for implementation (p 176).

In addition to these five principles, the authors propose that it is ethically important to ‘to measure the outcomes of legislated policies to ensure that successes are supported and considered on a larger scale’ (p. 176).

The paper by Carter et al. [37] is the only paper, to my knowledge, that extends the lens of critique for examining public health obesity prevention interventions beyond that of public health ethics and specifically focuses on the values and principles of health promotion. The overall purpose of the paper is to present a new approach to guide health promotion practice which draws on the integration of both ethical and evidential systems of reasoning. The authors argue that the concepts, values and procedures inherent in health promotion evidence and health promotion ethics should be made explicit.

To explicate their new approach they used the case study of Measure Up, a public health obesity prevention program implemented in Australia. In so doing they critiqued the social marketing strategy and evaluation report, and identified the ethical and evidential values that were prioritised. Their results showed that the health promotion ethical values implied in the program strategy and evaluation report were as follows:

1. Individual change was prioritised over community or structural change;
2. Biological health was prioritised over positive self-image or general wellbeing;
3. Preserving dignity was not a priority;
4. Assumptions about individual freedom to choose healthy behaviours were fore fronted rather than recognition of structural constraints;
5. Reducing waist measurements were more important than avoiding unreasonable coercion; and
6. Permitting stigmatisation was more important than preserving dignity and avoiding stigmatisation of fat people [37] (p 469).

The health promotion evidential values implied in the program strategy and evaluation report were as follows:

1. Reductive, repeatable measures of waist circumference were prioritised over complex social and environmental measures or outcomes;
2. Aggregated data were more important than individual narratives;
3. Reduction of the science of body weight to simplistic equations prioritised over recognition of the complexity of body weight;
4. Concerns of program funders more important than concerns of primary audience;
5. Evaluation measures only included variables targeted for change with no attention to measuring potential harms; and
6. Evidence of change in awareness, knowledge and intention to act prioritised over quality of evidence of meaningful change [37] (p 469).

In addition the authors found no evidence of any relationship between the ethical and the evidential values expressed implicitly in the program strategy or evaluation report [37].

3.4 Conclusion

The argument in the thesis thus far is that health promotion is a critical applied discipline aimed at addressing complex health issues in order to improve the health of people. Health promotion practice involves working collaboratively with people to enhance the health of individuals, groups, communities and populations. Health promotion practitioners are expected to understand and respond to multiple interrelated determinants of health. This requires the ability to plan, implement, and evaluate health promotion programs that are complex and multifaceted. Health promotion is explicitly based on values of empowerment, participation, social justice, equity and community action. Various attempts have been made to explore the way these abstract values are translated into action-based principles. Health promotion
values and principles are implicitly enacted in health promotion programs, but this process should be made explicit. Values and principles consistent with modern health promotion represent the ‘ideal type’ or best practice, but in reality, most health promotion programs will sit somewhere on a continuum from modern to traditional health promotion.

The topic of body weight is a major focus in health promotion and public health in many countries around the world. The literature on body weight as it relates to three values of health promotion practice was reviewed in Chapter 2. The literature review related to evidence of need, evidence of effectiveness and potential for harm demonstrated that the issue of body weight is both complex and contested, and problematising body weight through public health initiatives has the potential to result in considerable harm. The weight-centred health paradigm, although subject to critique on ideological, ethical and empirical grounds, is nonetheless the dominant paradigm strongly influencing current weight-related public health initiatives at the international level and at the national level in Australia.

The discipline of health promotion is primarily responsible for implementing weight-related public health initiatives, and this chapter reviewed existing critique of weight-related initiatives from a public health and health promotion perspective. Only a small number of studies have examined weight-related initiatives through the critical lens of public health ethics, and a number of ethical issues related to the framing of body weight and the implementation of obesity prevention programs have been raised. Only one study explicitly identified the health promotion values used in the critique of a weight-related public health program. In that paper, the set of values used was limited and did not represent the broader set of values and principles that have been defined by the discipline.

Weight-related public health initiatives have not been subjected to a rigorous critique with respect to the full set of values and principles of health promotion. Given the responsibility of the discipline of health promotion to implement most weight-related
public health initiatives, it is imperative that such initiatives be subjected to critical investigation through a health promotion lens. This is a major gap that is important to address in order to ensure that the values and principles identified as being important to the discipline are being enacted in health promotion practice. This gap was the focus of this research project.
Chapter 4   Research design

4.0   Introduction

The previous chapters have provided the context and review of the literature relevant to this study. In this Chapter I describe and provide the rationale for the research design.

Crotty [65] proposed four key elements of a rigorous research design including the epistemology, theoretical perspective, methodology, and methods. The epistemology refers to the theory of knowledge embedded in the theoretical perspective and methodology. The theoretical perspective refers to the philosophical position taken in the research, and the methodology, or the process behind the selection and use of data collection and analysis methods. The epistemology and theoretical perspective provide justification for the selection of appropriate methodology and methods to answer the research question [65]. In this study I used Crotty’s framework to structure the research design.

A theoretical framework was also included as a key element of the research design. A theoretical framework is a theory comprised of a set of related concepts through which the researcher can view the focus of an inquiry and the interpretation of results [65, 548]. Alignment between the theoretical foundations (epistemology, theoretical perspective, theoretical framework) and the research process (methodology and methods) ensures theoretical and methodological rigor, whereby the theoretical underpinnings and research process are consistent with and appropriate for the research aim and question [65, 548].

The purpose of this chapter is to describe the research design including the research aim and question, the constructivist epistemology, the theoretical perspective of critical theory, the theoretical framework of Critical Systems Heuristics, the methodology of critical discourse analysis, the data collection and analysis methods, and finally the ethical considerations.
4.1 Research aim, objectives and questions

The aim of this research project was to contribute to reorienting or changing public health responses to body weight towards health promotion best practice. The objectives of the project were to analyse the discourses within Australian weight-related public health initiatives, and to use the results of the discourse analysis to determine the extent to which these initiatives reflect the values and principles of health promotion.

To achieve the aim and objectives, the project posed the following research questions:

1. What are the discourses within weight-related public health initiatives in Australia?

2. To what extent do weight-related public health initiatives in Australia reflect the values and principles of health promotion?

4.2 Epistemology

This research was conducted within the constructivist epistemology [65], which is consistent with my beliefs about the social construction of knowledge and meaning. Although many forms of constructivism have developed over time, the central tenet of constructivist epistemology is that human knowledge and the methods used to develop new knowledge are constructed and not innate [549]. This means that there is no single objective reality, but rather multiple interpretations based on the experiences and existing knowledge of the learner [65]. Furthermore, constructivism holds that the content of all scientific disciplines, such as the discipline of health promotion in which this study is situated, is constructed through the work of scholars and practitioners across the generations, within the context of the social and political environment [549].
My role in constructing the research design and the knowledge arising from the research is therefore explicitly acknowledged. The research aim, objectives and questions were determined by me and reflected the results of the research development process within the context of my own personal and professional interests, knowledge and experiences. The research design was determined by me as a strategy for achieving the research objectives. Other researchers, with different interests and experiences, may have constructed a different set of objectives or even a different research design to address the same objectives. I was responsible for collecting the data, conducting the data analysis, interpreting the results and presenting the constructed knowledge in this dissertation, all of which occurred within the context of my own knowledge, interests and experiences. The outcome is therefore my construction of the issue and the research project addressing that issue. Another researcher would undoubtedly have constructed a different response and designed a different study, complete with a different interpretation of the results dependant on their own personal and professional interests, knowledge and experiences.

4.3 Theoretical perspective

Health promotion practice is first and foremost focussed on reducing inequity within and between communities [30, 63]. In line with this, the theoretical perspective used in this research project was critical theory [65] also known as critical social research [550]. Critical theory refers to research, policy and practice that is essentially focused on bringing about social change, especially social change that addresses inequalities and inequities within society through the process of critiquing power relationships and social structures that perpetuate inequity [551]. Similarly, critical social research is focused on the contribution made by the structure, organisation and functioning of society to suffering, injustice and inequality [550]. Baum argues that all health promotion research should use critical theory because of its inherent requirement to focus on action to address the causes of inequality and thereby reducing inequity [34].
Critical social research seeks to identify and analyse the root causes of social issues and to propose ways to alleviate or resolve them. According to Fairclough et al. the most pressing social problems in the world today are the unjust social relations that stem from the arbitrary categorisation of people; categorisation that supports and is supported by oppressive attitudes and practices [550]. The authors provide examples of categorisation of people based on age and race, but this assessment can equally be applied to the categorisation of people based on perceived adiposity or actual classification according to BMI.

An influential contemporary critical theorist is German sociologist and philosopher Habermas [552, 553]. Habermas proposed three knowledge domains that contribute to research processes and outcomes: technical knowledge, practical knowledge and emancipatory knowledge [553-556]. The technical knowledge domain, also referred to as instrumental action, denotes the way people use technical knowledge to manage their work environment. Instrumental action is evident in the natural sciences and in the positivist social sciences, where scientists use hypothetical-deductive theories to generate objectivist causal explanations about phenomena of interest [553-556].

The practical knowledge domain, also known as communicative action, denotes knowledge generated through human social interaction that enhances interpretation and understanding about social phenomena. Practical knowledge is most evident in the historical and social science disciplines. Practical knowledge is governed by obligatory social norms that indicate mutual expectations about behaviours between individuals. Habermas suggests that society evolves and operationalises through rational communication and that the lack of rational communication results in the erosion of relationships at the individual and societal levels. Habermas also proposes that power differentials work to distort rational communication, and that it is these distortions in communication that need to be the focal point for change [553-556].

Emancipatory knowledge denotes knowledge of the self that is gained through self-reflection. Emancipatory knowledge is most evident in the critical sciences such as
feminist theory. It includes enhanced consciousness and understanding about one’s perception of themselves, their role in, and expectations of social life. This form of knowledge, Habermas contends, results in the liberation of individuals from oppressive social structures [552-556].

Critical theory seeks ‘not to disprove other theories, but to establish the limits of their validity, by showing that they unknowingly reflect a social reality which is itself distorted, an ‘alienated’ and impoverished version of what it could become’ [557] (Italics in the original) (p. 5). Critical theory was therefore an appropriate theoretical perspective from which to analyse weight-related public health initiatives and the extent to which they reflect social and political structures and ideologies, and create technical, practical and emancipatory knowledge.

4.4 Theoretical framework

A theoretical framework for research design is a structure that provides guidance for the framing, implementation and interpretation components of a research project. Both inductive and deductive research methodologies require a theoretical framework that is present in or developed from the literature in order to guide the research process and achieve the study objectives [558].

Critical Systems Heuristics (CSH) [66], a form of Critical Systems Theory (CST), was the theoretical framework used for the study. CSH was originally developed by Werner Ulrich [559] and is regarded as the third wave of systems thinking [560]. CSH aims to improve the quality of scientific study by giving users of a system a voice inside science, rather than having observations about the system constructed solely by experts without the participation of users [561]. Norman asserts that ‘health promotion research and practice recognizes that social change is not linear and involves multiple communities of interest working together in a coordinated manner in order to address health problems’ [67] (p. 868). Norman therefore advocates for the use of systems methodologies and critical systems heuristics in health promotion practice and research [67]. Green also argues for the integration of ‘systems science’
into public health research and practice, although he specifically highlights the need for public health to draw on critical systems theory in order to create more practice-based evidence in public health [562]. CSH is a very practical, applied theoretical framework that is useful in a practical, applied discipline such as health promotion. It is a framework that builds phronesis [563] or practical wisdom on how to address and act on social problems in a particular context. Flyvbjerg et al. contend that intelligent social action requires phronesis, rather than ‘episteme’ or universal truth, and ‘techne’ or technical know-how [563].

Three main reasons for using CSH as the specific form of critical systems theory are to:
1. Make sense of situations, including the sources of motivation, control, knowledge and legitimacy within the system; 2. Reveal multiple perspectives of each of the four classes of social roles or stakeholders within the system (beneficiary, decision maker, expert and witness) on the normative ideal mode (what ‘ought’ to be) and the descriptive, more realistic mode (what ‘is’); and 3. Promote reflective practice by analysing situations and changing them [66]. CSH therefore requires moving beyond simply understanding the what ‘is’ of systems, to systemic intervention towards what ‘ought’ to be [564]. The term ‘intervention’ is defined by Midgley [564] as purposeful action by an agent to create change. Following this definition of intervention, systemic intervention is defined as purposeful action by an agent to create change in relation to reflection on boundaries [564].

The three central components of a CSH systemic intervention study are boundary critique, reflective practice and critical competence [66]. Boundary critique involves identifying and critiquing the prior boundary judgements or normative content of the system. Boundary judgements include the multiple underlying values, claims and assumptions inherent in complex systems, and the merit or value attributed to different claims with the system. Boundary judgements also include the implications or side effects for those at the receiving end of systems. Investigating the boundary judgements of the system will expose the values, claims and assumptions of the system for interrogation by those affected by it. Boundary judgements are explored
Boundary critique can occur through self-critical reflection on practice (inward looking reflection) or at an emancipatory level (outward looking reflection), which challenges the boundary judgements of those that may not be so open to self-critical reflection. Critical discourse analysis was the methodology used to conduct the boundary critique. Description of critical discourse analysis and how it was used is presented in the methodology section below.

Reflective practice involves engaging in purposefully reflecting on current practice, which requires heuristic support in the form of critical questioning tools. Critical competence means developing the competence of professionals and everyday people to support critical reflection and discourse. CSH aims to emancipate people from a situation of incompetence and dependency in which they are placed by experts from within the system, in the name of science [561].

This research project was focused on weight-related public health initiatives, which were demonstrated in the literature review to primarily sit within the weight-centred health paradigm. The weight-centred health paradigm is one of two major competing knowledge systems related to body weight and health. Through the use of authoritative practices and claims-making to establish legitimacy, the WCHP has become the dominant or normative weight-related knowledge system throughout most of the developed and developing world [565].

The research project provided a user of the dominant weight-related knowledge system (myself as a health promotion practitioner) an opportunity to participate in observations about the system. The project involved reflective practice using a specific tool to critique the weight-related knowledge system (as reflected in weight-related public health policies and programs) through the lens of the values and principles of health promotion. The heuristic used to assist the reflective practice was the health promotion values and principles continuum [55]. The values and principles in this continuum are grouped into three domains: philosophical, ethical and technical values.
and principles. The values at each end of the continuum from modern to traditional health promotion, across the three domains are presented in Tables 1 to 3.

Table 1: Health promotion values in the philosophical domain at each end of the practice continuum

<table>
<thead>
<tr>
<th>Domain</th>
<th>Focus of value</th>
<th>Modern health promotion values</th>
<th>Traditional health promotion values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophical values</td>
<td>Worldview</td>
<td>Organic worldview</td>
<td>Mechanistic worldview</td>
</tr>
<tr>
<td></td>
<td>Epistemology</td>
<td>Constructivist epistemology</td>
<td>Objectivist epistemology</td>
</tr>
<tr>
<td></td>
<td>Health paradigm</td>
<td>Holistic health paradigm</td>
<td>Biomedical health paradigm</td>
</tr>
<tr>
<td></td>
<td>Scientific approach</td>
<td>Ecological science</td>
<td>Reductionist science</td>
</tr>
<tr>
<td></td>
<td>Motivation for health</td>
<td>Desire for health as a resource for living</td>
<td>Fear about health risk factors and diseases</td>
</tr>
<tr>
<td></td>
<td>Assumptions about people</td>
<td>Assume that people are naturally healthy</td>
<td>Assume that people are naturally unhealthy</td>
</tr>
<tr>
<td></td>
<td>Who to work with</td>
<td>Focus of strategies determined by equity</td>
<td>Strategies focused on whole groups or populations</td>
</tr>
<tr>
<td></td>
<td>Program basis</td>
<td>Strengths-based approach with emphasis on salutogenic factors that create health and wellbeing</td>
<td>Deficit-based approach with emphasis on risk behaviours and disease</td>
</tr>
<tr>
<td></td>
<td>Nature of strategies</td>
<td>Strategies that are enabling and empowering</td>
<td>Strategies that are disabling and disempowering</td>
</tr>
<tr>
<td></td>
<td>Distribution of power</td>
<td>Redistribution of power to allow egalitarian power structures</td>
<td>Concentration of power to support patriarchal power structures</td>
</tr>
</tbody>
</table>

Table 2: Health promotion values in the ethical domain at each end of the practice continuum

<table>
<thead>
<tr>
<th>Domain</th>
<th>Focus of value</th>
<th>Modern health promotion values</th>
<th>Traditional health promotion values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethical values</td>
<td>Participation in change process</td>
<td>Active participation</td>
<td>Passive recipients</td>
</tr>
<tr>
<td></td>
<td>Personal autonomy</td>
<td>Respect personal autonomy</td>
<td>Restrict personal autonomy</td>
</tr>
<tr>
<td></td>
<td>Beneficence</td>
<td>Maximum beneficence</td>
<td>Limited beneficence</td>
</tr>
<tr>
<td></td>
<td>Non-maleficence</td>
<td>Non-maleficence is a priority consideration</td>
<td>Scope of maleficence not fully considered</td>
</tr>
<tr>
<td></td>
<td>Basis for practice</td>
<td>Comprehensive use of evidence and theory</td>
<td>Limited or selective use of evidence and theory</td>
</tr>
</tbody>
</table>
Table 3: Health promotion values in the technical domain at each end of the practice continuum

<table>
<thead>
<tr>
<th>Domain</th>
<th>Focus of value</th>
<th>Modern health promotion values</th>
<th>Traditional health promotion values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical values</td>
<td>Strategy approach</td>
<td>Portfolio of multiple strategies</td>
<td>One or two strategies</td>
</tr>
<tr>
<td></td>
<td>Governance and decision-making</td>
<td>Collaborative</td>
<td>Imposed from outside</td>
</tr>
<tr>
<td></td>
<td>Professional role</td>
<td>Working with people as an ally</td>
<td>Working on people as an expert</td>
</tr>
<tr>
<td></td>
<td>Impact evaluation indicators</td>
<td>Determinants of health</td>
<td>Behaviour and disease rates</td>
</tr>
</tbody>
</table>

According to Gregg,

This continuum could be a useful reflective tool for practitioners to use to identify the underlying values and principles of their own and others’ practice, policies, and programs, to determine alignment along the continuum from traditional to modern health promotion approaches [566] (p. 197).

The components of CSH and their application in this research project are summarised in Table 4.

Table 4: Explanation and application of CSH components in this research project

<table>
<thead>
<tr>
<th>CSH component</th>
<th>Explanation</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boundary critique</td>
<td>Identifying and critiquing boundary judgements of the system which include the values, claims and assumptions of the system</td>
<td>Identifying and critiquing the discourses within weight-related public health initiatives</td>
</tr>
<tr>
<td>Reflective practice</td>
<td>Engaging in reflective practice which requires heuristic support for dialogue in the form of critical questioning tools</td>
<td>Using the health promotion values and principles continuum as a critical questioning tool for reflection on weight-related public health initiatives</td>
</tr>
<tr>
<td>Critical competence</td>
<td>Developing the critical competence of professionals and people in the community to support critical reflection</td>
<td>Producing a critical questioning tool to provide heuristic support for the development of critical competence of policy makers, health promotion practitioners and people in the community to reflect on weight-based public health initiatives</td>
</tr>
</tbody>
</table>
4.5 Methodology

4.5.1 Critical discourse analysis

Critical discourse analysis (CDA) [567] was the methodology used to address the research project’s first question: What are the discourses within weight-related public health initiatives in Australia? CDA draws on the traditions of Michel Foucault who highlighted the need to focus on the cultural codes or systems of language that serve to give legitimacy to some claims by certifying them as authoritative and truthful [568]. Multimodal CDA [68] uses a broad definition of text to include words, pictures, symbols, ideas, themes or any message that can be communicated. The methods of text communication can be written, audio or visual, and include books, newspaper and magazine articles, blogs, websites, advertisements, postcards, posters, graffiti, clinical records, letters, transcriptions of interviews or conversations, diaries, speeches, official documents, television and radio programs, films, theatre, street performance, videotapes, lyrics, photographs, articles of clothing or works of art. The broad ideas communicated by a text form the discourse. The text’s structure functions to highlight certain ideologies, whilst downplaying or concealing others [68].

CDA, which is primarily associated with the ideas of Norman Fairclough [550], Ruth Wodak [569] and Teun van Dijk [570], focuses on identifying the rules and practices used by text producers (speakers, writers, image and performance creators) to legitimise their knowledge claims and support their ideology [571]. CDA assumes that power and ideology are transmitted through discourse, and therefore aims for a detailed critique of text to highlight the connection of text to ideology and the exercise of power. Such connections are often hidden, or appear neutral on the surface, but shape the representation of the content for particular ends. Broadly speaking, discourse analysis attempts to understand how text and context interact and convey meaning. As a methodology, CDA is distinguished from discourse analysis by Fairclough as being ‘discourse analysis with an attitude’ [572] (p. 96) due to its particular focus on critiquing text for evidence of power and ideology. The term ‘critical’ in CDA, is therefore consistent with its usage in critical theory and CSH; that is revealing the
ideas, absences and assumptions, and therefore the power interests buried within texts in order to bring about social change [550].

Discourses are comprised of participants, behaviours, goals, values and locations [68] and do not simply mirror reality. Through the language that is used in texts, the social world is created, including the social identities of people, relations between people, objects of knowledge and institutions [550]. The aim in CDA is to reveal the way that texts are used, both implicitly and explicitly, to construct the social world and the power relationships within it [570]. CDA seeks to make evident the inequalities and interests created, perpetuated or legitimated by texts through the persuasive influence of power by dominant groups to persuade subordinate groups to accept the dominant group’s moral, political and cultural values and institutions [68]. CDA examines the mechanisms through which hegemonic attitudes, opinions and beliefs are constructed by the discourse in order for them to appear ‘natural’ and ‘common sense’. The presentation of ideas as ‘natural’ or ‘common sense’ enables ideologies to infiltrate people and institutions as they appear to be ‘neutral’ rather than ideological or reflective of the interests and values of the powerful [68]. Likewise, CDA seeks to explore the suppression or concealment of other discourses for the purposes of legitimising a particular ideology [68].

CDA methodology is consistent with the assumptions of constructivist epistemology that knowledge and knowledge claims are constructed representations of the external world. CDA encourages a critical view of knowledge claims which assert truth and authority [568]. Such claims are subject to critical analysis of the origins, nature and structure of the discursive themes through which the knowledge discourse is produced [568]. As such, CDA methodology is consistent with the boundary critique component of CSH in which the values, claims and assumptions of the system are identified and critiqued [564].

With respect to the methods used to conduct CDA, there is no one specific method characteristic of CDA studies [569]. The method used in this study draws on the
characterisation of CDA by Machin and Mayr [68]. As a method, CDA has a structured three dimensional approach involving textual practice analysis (for lexicon) at the core, within the context of discursive practice analysis (for rhetorical and lexical strategies particularly with respect to claims-making), which falls within the context of social practice analysis [567]. Social practice analysis explores the role played by power and ideology in supporting or disturbing the discourse. Analysis explores how power is maintained in the text, how hegemonic is the discourse, and whether there is any evidence of instability, inconsistency or vulnerability in the discourse [68, 567]. These analytic queries are consistent with the critical aspect of this research. The relationship between each level of practice is presented in Figure 3.

![Figure 3: Framework for critical discourse analysis](image)

Analytic attention must therefore be paid to each of these dimensions. Given that texts may have meaning in all three dimensions, analysis across the dimensions was conducted simultaneously rather than in isolation or in a sequence from textual to discursive to social practice analysis.
Critical discourse analysis has a number of strengths relevant to the conduct of this study. The main strength of critical discourse analysis is that the processes involved in collecting and analysing the data are unobtrusive and the researcher does not have any direct interaction with the source of the data. The text being analysed was not produced for the research process itself, and so the potential for the data themselves to be influenced by the research process is minimised [573-575]. However the interpretation of the data is constructed by the researcher. The other benefit of using existing texts is that many of the ethical issues that arise from collecting data directly from people are avoided [571].

Critical discourse analysis is useful for analysing discourse across many texts and making qualitative comparisons. It can reveal aspects of the texts individually or in aggregation that are difficult to see with casual observation. It can also reveal themes that are not consciously intended by the originator of the communication, and thereby reveal implicit assumptions, motives, attitudes, values, ideologies or positions they may hold [576]. CDA is useful for examining not only what is included but also what is excluded. The absence of some content may be just as important to a researcher as the presence of other content [577]. The systematic methods used in CDA for handling large volumes of text with relative consistency means that studies can be more easily replicated by other researchers [575].

The unobtrusiveness of CDA is also a limitation. In the observation and interpretation of social phenomena, CDA by definition necessitates a degree of removal from social participants that may not be desirable [571]. Another obvious limitation of CDA is that it is limited to recorded texts. Communications that are not recorded in any way are unable to be analysed. Because CDA uses data produced for purposes other than the research, it provides no opportunity for clarification or rationale. As a result it is difficult to know why certain text includes certain features [573]. It is also impossible to know what the effect of the text is on those who encounter it [571].
4.5.2 Health promotion values and principles continuum

In order to address the research project’s second research question: To what extent do weight-related public health initiatives reflect the values and principles of health promotion?, the critical discourse analysis process was overlaid by the analytic framework provided by the continuum of values and principles of health promotion [55] (Figure 4). This process is similar to that used by three Canadian Centres of Excellence in women’s health whereby the Sex- and Gender-Based Analysis (SGBA) framework was used to guide the discourse analysis of Canadian ‘healthy living’ public health initiatives [535].

![Figure 4: Framework for critical discourse analysis using health promotion values and principles](image)

The health promotion values and principles continuum includes three domains: philosophical values and principles; ethical values and principles; and technical values and principles. Philosophical health promotion values and principles encompass epistemology, worldview, scientific approach, health paradigm, emphasis, motivation for health, assumptions about people, and health promotion strategies. Modern health promotion comes from a constructivist epistemology in which health promotion knowledge is constructed collectively with and by people most affected by health
issues. At the other end of the continuum, objectivist epistemology holds that there is only one truth, and knowledge about that truth is thought to be uncovered by objective observers.

The worldview in modern health promotion is organic, which entails seeing the world and people within it as living, breathing and dynamic. The scientific approach that is valued in modern health promotion is the ecological approach, which recognises that people exist within multiple ecosystems, from the individual level, to the family, group, community, population and global level. Ecological science recognises that each of these levels acts as a system, and that all parts of the system are connected. The ecological approach to understanding health involves understanding the broad range of factors that impact on health within multiple ecosystems. This is contrasted with the other end of the continuum in which the mechanistic worldview dominates. This entails seeing the world and people as unchanging static machines, and adopting a reductionist scientific approach in which it is assumed that understanding about health comes from understanding each part of the human machine.

Consistent with the reductionist scientific approach is the biomedical health paradigm in which health is considered to be an absence of disease or infirmity, and a deficit based approach is adopted with an emphasis on the risk factors for disease, primarily behavioural risk factors. At the modern health promotion end of the continuum, value is placed on the holistic health paradigm, which entails an understanding of health as a complex concept that includes aspects of mental, physical, social and spiritual wellbeing of the whole person, within the context of their natural, built, social, economic and political environments. The first part of this description of the holistic health paradigm is closely aligned with the WHO definition of health, which is the state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity [578], although this definition has been criticised for being unrealistic, utopian and inflexible, and that the inclusion of the word ‘complete’ makes it unlikely for any person to be considered completely healthy at any point in time, let alone over a reasonable period of time [579].
Aligned with the holistic health paradigm is a strengths-based approach to health, with an emphasis on the salutogenic (health creating) factors [61] that people are doing ‘right’ in order to create and support health and wellbeing, happiness and meaning in life. This contrasts with the traditional end of the continuum in which is deficit-based, with an emphasis on reducing the things people are doing ‘wrong’ in order to prevent specific diseases.

Modern health promotion assumes that when left to their own devices, most people will do the best they can for themselves, their family and their community, given their circumstances and available resources. Motivation to achieve good health is based on the value of health as a resource that enables greater enjoyment and fulfilment in life. At the traditional end of the continuum, health promotion is based on assumptions that if left to their own devices, most people will naturally adopt ‘unhealthy’ lifestyles, and that the fear of the consequences of these ‘unhealthy’ choices will be prime motivators for people to adopt long-term sustainable changes.

Strategies consistent with traditional health promotion are characterised by actions that seek to intervene in people’s lives by targeting ‘at risk’ populations and behaviours, without any active involvement of the people most affected by the issue. These strategies can be disabling and disempowering. Conversely, modern health promotion values strategies that enable and empower people at the individual and community levels to connect with their inner wisdom, and gain control over their lives and the determinants of their health.

In modern health promotion, processes that serve to assist with the redistribution of power to people that are most impacted by an issue are valued. This means prioritising work with communities that are often the most marginalised, vulnerable and disadvantaged, and often regarded as ‘hard to reach’ and shifting power to enable community ownership of initiatives. This is distinct from the other end of the continuum, where traditional health promotion has its foundations in the
concentration of power to support patriarchy, and tends to focus on whole groups or populations that are not involved in decision-making about health issues, but rather are passive recipients of initiatives developed by others such as government agencies or non-Government organisations.

Ethical health promotion values and principles in the health promotion values and principles continuum focus on participation in the change process, personal autonomy, beneficence and non-maleficence. These values and principles are consistent with modern bioethics [64]. Modern health promotion seeks to ensure that people impacted by health issues are involved in the development of health promotion actions that are appropriate to their needs, respect autonomy and recognise that not all people will choose the same actions. Modern health promotion also values the active consideration of the full range of benefits of health promotion action to a broad range of beneficiaries, as well as the potential harms, and takes steps to minimise or avoid this harm and communicate risks in a truthful and open manner. This is in contrast with the traditional end of the health promotion continuum in which processes are employed that restrict personal autonomy, are coercive or paternalistic, and in which all people are expected to adopt the same actions, irrespective of their own preferences. This type of practice may only consider a limited range of benefits and beneficiaries, and not consider the full range of potential harms associated with particular strategies.

Ethical practice in modern health promotion involves ensuring that health needs assessment processes incorporate the perspectives of all stakeholders, and that health promotion practice is informed by sound evidence of need, evidence of effectiveness, and appropriate theoretical foundations. At the traditional end of the continuum, health promotion practice is based on selective use of evidence and/or political motives.

The philosophical and ethical health promotion values and principles described above can be translated into technical health promotion values and principles. Modern
health promotion values the use of multiple strategies incorporating all action areas of the Ottawa Charter, at multiple levels from individuals through to communities and populations, and in a variety of settings, as opposed to the reliance in traditional health promotion on one or two strategies, particularly legislation and regulation, and developing personal skills for behaviour change.

In modern health promotion practice, the health promotion practitioner is regarded as an ally, working on tap with people as an enabler, mediator and advocate and using models of governance and decision-making that facilitate active and meaningful participation by all stakeholders impacted by health issues. At the traditional end of the continuum, health promotion practice is led by outside experts who often assume they know what is best for the community, and work from a top-down position of authority and expertise. Modern health promotion values sustainable changes to the determinants of health, and therefore impact evaluation indicators are focused on changes in factors that enable people to increase control over the determinants of health. In contrast, traditional health promotion impact evaluation indicators focus on changes in rates of diseases and ‘unhealthy’ behaviours.

The health promotion values and principles continuum provides a framework to assist practitioners to reflect on the extent to which their current practice and the initiatives they are working are consistent with modern or traditional health promotion. It can be used in any context or with any issue. It is also a useful framework for people in the community to reflect on the health promotion initiatives they are involved with or impacted by. The use of the health promotion values and principles continuum is consistent with the reflective practice component of CSH, which involves engaging in reflective practice with heuristic support for dialogue in the form of critical questioning tools. In this study the health promotion values and principles continuum acted as the critical questioning tool for my reflection on and analysis of the discourse of the texts.
4.6 Data collection method

The texts chosen for analysis were documents describing weight-related public health initiatives from Australia. In this study ‘documents’ refers to initiatives that include written documents as well as online, print, television and radio advertisements and materials. These documents were the most salient to the research project as they reflected actual public health policies, programs and other initiatives in operation. Documents that met all of the following six criteria were sought for inclusion in the sample:

1. Report, policy, program, strategy or action plan
2. Commissioned or produced by the Australian federal government or parliament
3. Published between 2003 and February 2013
4. Name, description or rationale of the document is explicitly focused on body weight as the primary or major issue
5. Population level focus
6. Freely available on the internet

The start date of 2003 was selected as this was the date when the Commonwealth, State and Territory Health Ministers first declared that ‘overweight and obesity are significant public health problems that threaten the health gains made by Australians in the last century’ [121] (p. i). Documents reporting on the progress or evaluation of a public health policy or program were excluded. Ten documents or sets of documents met all of the inclusion criteria. Given the number of documents identified through the selection process, it was determined that the study would use a census sample. In this study the census sample refers to all of the identified documents. Based on the extensive nature of the theoretical framework used for analysis, it was determined that the unit of analysis would be the entire document in order to ensure that all components of the theoretical analysis framework could be applied to all components of the text.
The sample included all documents published over a 10 year period, thereby yielding a substantial data set. The first document in the sample was the Australian Government’s first strategic plan to address obesity, and the final document in the sample was published 10 years later in 2013. The study was limited to Australian documents only, and so generalizability of the findings to other countries may be limited. However based on the findings of the literature review, it is anticipated that the Australian weight-related public health initiatives would not be substantially different to those in countries such as the USA, UK, Canada or New Zealand.

4.7 Data analysis method

In this research project I used the eight stage analytical procedure outlined by Marshall and Rossman [580]: organising the data, immersion in the data, generating categories and themes, coding the data, writing analytical memos, offering interpretations, searching for alternative understanding, and writing the report. Using this procedure allowed for the creation of a manageable process for the examination and interpretation of the data.

Organising the data

This stage of analysis entailed organising the ten documents or sets of documents selected in the data collection process. During this stage, all documents were entered into NVivo data analysis software (QSR International Pty Ltd. Version 10, 2012). Documents available as pdf files from the internet were imported directly into NVivo. Other web based documents were converted to Microsoft Word documents and then imported into NVivo. Two of the initiatives (Measure Up and Swap It, Don’t Stop It) included multiple documents such as web-based text and visuals, radio and television advertisements, brochures, booklets and posters. Radio and television advertisements were transcribed and saved as Microsoft Word documents. All documents were imported individually into NVivo for analysis.
Immersion in the data

This stage involved reading the complete data set several times in order to become intimately familiar with the data. The goal of this stage was to not only become familiar with each data item individually but also within the context of the larger data set [580].

Generating categories and themes

The purpose of this stage was to identify major categories and themes. Using Machin and Mayr’s framework [68], analysis of documents involved examining the vocabulary, grammar, sentence structure, visuals and overall structure of the text for textual practices, discursive practices and social practices as they related to the health promotion values and principles continuum [55]. There were numerous textual practices in the framework that were not evident in the documents. In the interest of clarity, only the practices that were identified in the documents are described here.

Word connotations, overlexicalisation, suppression or lexical absence, ideological squaring (more explicit build-up of opposing concepts), lexical choices (to indicate authority), genre (for example formal, informal, scientific, conversational and fictional) and intertextuality (references to other texts) are all used to convey meaning, and documents were therefore examined for evidence of these textual practices [68].

Where relevant, for example where the practices of overlexicalisation and lexical suppression were identified, the data were examined to determine if statistical analysis of the usage of terms would yield a meaningful result. This method was used with respect to a small number of terms where the quantification of the prevalence of terms was relevant and added depth to the analysis. Statistical analysis involved calculating descriptive results of the number of times specific terms were used, and where appropriate, the proportion of the total. No statistical tests were conducted on the data.
Analysis of the way people were represented in language in the documents included examination of the use of honourifics. Analysis of the way people and other subjects were represented in images included examination for gaze, interaction, poses, distance, angle, number, generic versus specific depictions, and exclusion [68].

Documents were examined for the textual practice of presupposition in order to determine concealment and taking for granted. Presupposition is used to imply meaning or present things as taken for granted and uncontested. Presuppositions can also enter into common usage and come to appear as self-evident, with their ideological origins backgrounded or completely forgotten [68].

Rhetorical tropes are used to convey discourse and as such documents were examined for evidence of the use of such tropes including metaphor, hyperbole and synecdoche (part used to represent the whole and vice versa) [68].

Finally, documents were examined for discursive practices related to committing and evading, including the use of different modalities and hedging. Linguistic and visual modals can be used to convey levels of truth and commitment, and include epistemic modality (related to a judgement of the truth of a proposition), deontic modality (related to influencing people and events through compelling and instructing others), and dynamic modality (related to the possibility or ability of an action or event). Visual modals relate to the articulation of detail, background, light and shadow, and colour modulation and saturation. The use of modals conveys information about the author’s authority and the power they have over others and over knowledge, and their examination is therefore essential in CDA. Related to the examination of documents for modals is that of hedging, which is used to create a strategic ambiguity in claims, or paradoxically to convey the impression of detail and precision [68].

**Coding the data**

Texts were coded for evidence of textual practices, discursive practices and social practices related to the components of the health promotion values and principles.
framework of the health promotion values and principles continuum [55]. This process was consistent with a number of other studies using Critical Discourse Analysis methodology which have incorporated the use of an analysis framework either developed from the literature or from an existing theory. For example, Whitney used the principles of second language acquisition from the literature as a framework for a Critical Discourse Analysis of U.S. national and state language policies [581], Peralta used critical race theory, specifically interest convergence theory as the analysis framework for a Critical Discourse Analysis of the Obama Administration’s Education Speeches [582] and Pederson et al. used a sex and gender based analysis framework for a discourse analysis of women’s health initiatives in Canada [535].

Text that did not relate to any of the health promotion values and principles in the continuum was re-examined. If the text provided evidence of discourse that was not related to the specific health promotion values and principles in the continuum, but was nonetheless relevant to the research question, the text was coded with additional codes. Information that remained superfluous to the Critical Discourse Analysis was not coded.

**Writing analytical memos**

In this stage of the data analysis process, memos were written using the NVivo memo function. Memos related to points of interest noted throughout the coding and interpretation processes.

**Offering interpretations**

This stage required the interpretation of data in order to explicate the themes identified in the data and the relationships between those themes, and thereby to create a story line about the research topic [580]. Using the health promotion values and principles continuum as the analytical framework provided the structure required to answer the study’s second research question: To what extent do weight-related public health initiatives reflect the values and principles of health promotion? Based on the results presented, I assessed the extent to which the initiatives reflected each
of the 19 pairs of values and principles drawn from the two ends of the health promotion values and principles continuum. For each values and principles pair, I determined if the weight-related public health initiatives were strongly or somewhat reflective of the health promotion value and principle at the modern end of the continuum, or somewhat or strongly reflective of the health promotion value and principle at the traditional end of the continuum.

This process was similar to that used by Carter et al. [37] who, in their analysis of the Measure Up social marketing campaign and evaluation report, firstly established a continuum for a number of health promotion values related to ethics and evidence, and then secondly, determined at which end of the continuum the campaign was positioned. Instead of having a scale with only two possible positions, I created a scale with four possible positions in order to provide a more nuanced interpretation.

Searching for alternative understanding
In this phase I re-examined the data and considered different explanations for the conclusions drawn. This study is situated with the constructivist epistemology, and I therefore acknowledge that there is no single objective reality, but rather multiple interpretations based on my experiences and existing knowledge [65]. In order to strengthen the conclusions reached in this study, alternative explanations for the findings were identified and considered.

Writing the report
The final stage of the analytical procedure was to present and discuss the findings, which is the substance of Chapters 5 to 8.

4.8 Ethical considerations
This research did not involve data collection from humans; therefore approval from the Human Research Ethics Committee was not required. All documents used in this study were available online to the public or through the university databases.
4.9 Conclusion

The purpose of this chapter was to describe the research design including the aim of contributing to reorienting or changing public health responses to body weight; the research questions: What are the discourses within weight-related public health initiatives in Australia? and To what extent do weight-related public health initiatives reflect the values and principles of health promotion?; the constructivist epistemology; the theoretical perspective of critical theory; the theoretical framework of Critical Systems Heuristics; the methodology of Critical Discourse Analysis and the heuristic of the health promotion values and principles continuum; the data collection and analysis methods; and finally the ethical considerations. The results of the study are presented and discussed in the following four chapters.
Chapter 5  Weight-related public health initiatives included in analysis

5.0 Introduction

Chapter 4 described the research design. The results and discussion are presented in four chapters. In this chapter the ten documents selected for analysis are described. Rather than being presented chronologically (as they were in background section in order to tell Australian Government’s obesity prevention story), the documents are presented according to the process. Healthy Weight 2008 stands alone as the first document. The second group of documents all relate to the National Preventative Health Taskforce process for developing the National Preventative Health Strategy. These documents are referred to collectively as the Healthiest Country documents. The documents in the third group are the two social marketing campaigns. And finally the fourth group consists of the Parliamentary Inquiry into Obesity Report and the Australian Government’s response to this report.

Following the description of the documents analysed for the study, the next three chapters present and discuss the results of the critical discourse analysis conducted across the weight-related public health initiatives. Chapter 6 presents and discusses the meta-level findings related to the discourse of principles and the discourse of prevention. Chapters 7 and 8 present and discuss the results as they relate to each of the 19 ‘pairs’ of health promotion values and principles in the continuum [55]. By pair I mean the individual values and principles at each end of the continuum. Three of the pairs were broken down into two separate components yielding a total of 22 pairs of values and principles. Chapter 7 presents the nine values and principles in the philosophical domain related to the question of why weight-related public health initiatives were needed. Chapter 8 presents the 13 values and principles in the
philosophical, ethical and technical domains related to what weight-related public health strategies were proposed and implemented. Figure 5 presents a schematic representation of the content of Chapters 5 to 8.

Throughout Chapters 5 to 8, each result is presented followed by discussion of the result in relation to the literature. Chapter 9 discusses the results at the theoretical level from the theoretical perspective of critical theory and using the theoretical framework of Critical Systems Heuristics. The final thesis of the study is then presented.

Throughout the remaining chapters of this thesis, I use the first person to present and discuss the results. This is consistent with the constructivist epistemology used in the study, whereby I claim responsibility for the interpretation and construction of the results as I see them, within the context of my knowledge, attitudes, beliefs and experience. Furthermore, in accordance with the reflective practice component of Critical Systems Heuristics, the study was conducted by me as a health promotion practitioner operating within the knowledge systems of weight-related health paradigms, and the study results and discussion are my interpretation and critique of the boundary judgements operating within these systems, based firmly on the data I
have analysed using critical discourse analysis. The results and discussion are therefore presented in the first person; to do otherwise would be contrary to the theoretical and epistemological foundations of the study.

At this point it is also important to clarify the language used that relates to people whom are indigenous to Australia. Within the documents analysed the term ‘Indigenous Australians’ is the most frequently term used to collectively refer to both Aborigines and Torres Strait Islanders. The term ‘Aboriginal and Torres Strait Islanders’ is used less frequently in the documents. Australian Aborigines are indigenous people who live on or come from the mainland of Australia and Tasmania. Torres Strait Islanders are indigenous people who live on or come from the Torres Strait Islands which lie between the northern tip of mainland Queensland and Papua New Guinea. The two groups have very different cultures, but are both regarded as indigenous to Australia.

In contrast to the terms ‘Indigenous Australians’ and ‘Aboriginal and Torres Strait Islanders’, the National Aboriginal Community Controlled Health Organisation (NACCHO), the peak body representing over 150 Aboriginal community controlled health services throughout Australia, uses the term ‘Aboriginal’ to refer to Aboriginal and Torres Strait Islander peoples collectively [583]. As such the documents analysed in this project include references to NACCHO and Aboriginal community controlled health services, inclusive of those health services in the Torres Strait Islands.

Given the variety of terms used in the documents, throughout this thesis, whichever term is used in the text analysed is used in the subsequent discussion; however unless otherwise specified, all terms collectively refer to Aboriginal and Torres Strait Islander peoples. Where the term ‘Aboriginal’ or ‘Aborigine’ is used in a context unrelated to NACCHO or Aboriginal community controlled health services, it refers to Aboriginal people from mainland Australia and Tasmania, as distinct from Torres Strait Islanders.
5.1 Weight-related public health initiatives

This section describes the ten documents selected for analysis in this research project (Table 5).

Table 5: Weight-related public health initiatives included in analysis

<table>
<thead>
<tr>
<th>No.</th>
<th>Document</th>
<th>Year</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Healthy Weight 2008 – Australia’s Future: the National Action Agenda for</td>
<td>2003</td>
<td>[121]</td>
</tr>
<tr>
<td></td>
<td>Children and Young People and their Families</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Measure Up Social Marketing Campaign</td>
<td>2006</td>
<td>[433]</td>
</tr>
<tr>
<td>3</td>
<td>Australia: The Healthiest Country by 2020: A discussion paper</td>
<td>2008</td>
<td>[525]</td>
</tr>
<tr>
<td></td>
<td>in Australia: a need for urgent action</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Australia: The Healthiest Country by 2020 – National Preventative Health</td>
<td>2009</td>
<td>[584]</td>
</tr>
<tr>
<td></td>
<td>Strategy – Overview</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Australia: The Healthiest Country by 2020 – National Preventative Health</td>
<td>2009</td>
<td>[527]</td>
</tr>
<tr>
<td></td>
<td>Strategy – the roadmap for action</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Weighing it up: Obesity in Australia Report</td>
<td>2009</td>
<td>[126]</td>
</tr>
<tr>
<td>8</td>
<td>Taking Preventative Action – A Response to Australia: The Healthiest</td>
<td>2010</td>
<td>[432]</td>
</tr>
<tr>
<td></td>
<td>Country by 2020 – The Report of the National Preventative Health Taskforce</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Swap It (Measure Up phase 2) Social Marketing Campaign</td>
<td>2011</td>
<td>[528]</td>
</tr>
<tr>
<td>10</td>
<td>Australian Government Response to Weighing it up: Obesity in Australia</td>
<td>2013</td>
<td>[529]</td>
</tr>
<tr>
<td></td>
<td>Report</td>
<td></td>
<td></td>
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</tbody>
</table>

All of the Australia: The Healthiest Country by 2020 documents bar the Technical Report on Obesity addressed three issues: obesity, tobacco use, and alcohol use. The sections of each document specifically related to tobacco and alcohol use were not included in the analysis. All other sections were included.

In the description below, the documents are grouped together by association, rather than chronologically, as in the table above. The documents are presented in four groups: Healthy Weight 2008 (document 1 in the table); Australia: the Healthiest Nation by 2020 (documents 3, 4, 5, 6 and 8); social marketing campaigns (documents 2 and 9); and Weighing it up: Obesity in Australia (documents 7 and 10).
5.1.1 Healthy Weight 2008

*Healthy Weight 2008 – Australia’s Future: the National Action Agenda for Children and Young People and their Families* (hereafter referred to as *Healthy Weight*) was developed by the National Obesity Taskforce and published in 2003 [521]. The 26 page document outlined the strategic intent, goals, rationale and guiding principles for the action agenda. This was followed by the outcome and 2004 action plan for nine settings-based strategies and four national strategies.

The overarching strategic intent of the four year plan was to ‘assist Australians to enjoy the highest levels of good health in the world by promoting healthy weight’. The goals of the plan were to:

1. Achieve healthier weight in children and young people through actions which first stop and then reverse the increasing rates of overweight and obesity.
2. Increase the proportion of children and young people who participate in and maintain healthy eating and adequate physical activity.
3. Strengthen children, young people, families and communities with the knowledge, skills, responsibility and resources to achieve optimal weight through healthy eating and active living.
4. Address the broader social and environmental determinants of poor nutrition and sedentary lifestyles.
5. Focus action on giving children, young people and families the best possible chance to maintain healthy weight through their everyday contacts and settings.

The rationale for the plan and the ‘urgent need for action’ was based on statistics about rates of overweight and obesity, and the health, social and economic costs of obesity. The plan outlined the rationale for focusing first on young people and families, focusing on supportive environments, and focusing on prevention.
The plan included a list of guiding principles for the development of actions:

- Concentrate on solutions not problems—with a bias for action on health promoting environments.
- Be long-term and sustainable, recognising that behaviour change is complex, difficult and takes time.
- Engage the whole community—healthy weight is everybody’s business.
- Help those most in need and close the health gap between different population groups as a result of geography, ethnicity, and socio-economic status.
- Promote the positive benefits of healthy eating, active living and healthy weight.
- Reduce stigmatisation and avoid blaming young people, parents or carers.
- Empower and assist all groups to take action according to their own opportunities and responsibilities.

Nine settings were identified in which specific strategies were proposed. These settings were child care, schools, primary care services, family and community care services, maternal and infant health, neighbourhoods and community organisations, workplaces, food supply, and media and marketing. Four national strategies were identified: coordination and capacity building, evidence and performance monitoring, whole of community demonstration areas, and support for families and community-wide education. For each of the settings and national strategies, the outcomes sought and 2004 actions were provided. Actions were delineated for the health sector leadership and collaborations across sectors.

5.1.2 Australia: The Healthiest Country by 2020

Five documents that comprise the set of documents for Australia: The Healthiest Country by 2020 are described in this section. They include the discussion paper, technical report on obesity, the National Preventative Health Strategy overview and
roadmap for action, and the Australian Government response. These five documents are collectively referred to as the Healthiest Country documents.

Australia: The Healthiest Country by 2020: A discussion paper [525] (hereafter referred to as the Discussion paper) was published by the National Preventative Health Taskforce in 2008, together with three technical reports focused on obesity, tobacco and alcohol. The 80 page Discussion paper introduced the concept of ‘raising the bar for prevention’ and outlined a framework and set of principles for preventative health. The cases for prevention of overweight and obesity, tobacco and alcohol were presented, based largely on the technical reports developed for each issue. The Discussion paper then addressed issues related to support structures and policy imperatives required to strengthen support systems. A chapter on measuring performance highlighted the need to select and appropriate performance indicators and targets, and to develop performance monitoring systems. The final chapter focused on the path towards the realisation of a National Preventative Health Strategy.

The 138 page technical report on obesity, Australia: The Healthiest Country by 2020: Technical Report No 1 Obesity in Australia: a need for urgent action [16] (hereafter referred to as the Obesity Technical Report), proposed the case for obesity prevention, and then focused on what is required to address the problem and potential initiatives. The Discussion paper and the Obesity Technical Report formed the basis of consultation with health experts, industry and the public. The Taskforce received over 400 written submissions and held 37 invitation only consultations over 17 days in late 2008 and early 2009. In developing its final report, the Taskforce also considered relevant submissions that had been made to the Australia 2020 Summit, the National Health and Hospitals Reform Commission and the House of Representatives Inquiry into Obesity. Papers that had been commissioned by the Taskforce on specific topic of interest were also incorporated into the report.

The resulting report Australia: The Healthiest Country by 2020 – National Preventative Health Strategy – the roadmap for action [527] (hereafter referred to as the Roadmap), and Australia: The Healthiest Country by 2020 – National Preventative
Health Strategy – Overview [584] (hereafter referred to as the Overview) were published in 2009 by the National Preventative Health Taskforce. The 60 page Overview provided a summary of the conceptual framework of the National Preventative Health Strategy which included influencing markets, inequalities in health, developing effective policies, and investing for maximum benefits. The Overview then outlined seven strategic directions:

1. Shared responsibility – developing strategic partnerships
2. Act early and throughout life
3. Engage communities
4. Influence markets and develop connected and coherent policies
5. Reduce inequity through targeting disadvantage
6. Indigenous Australians – contribute to ‘Close the Gap’
7. Refocus primary healthcare towards prevention

The 316 page Roadmap provided the detailed case for prevention, targets, key action areas and specific recommendations for each of the three priority issues of obesity, alcohol and tobacco. For each of the key actions a range of specific recommendations, allocation of responsibility, staged implementation plan and performance targets were presented. All of the key action areas for obesity prevention focused on strategies to increase healthy eating and physical activity.

Taking Preventative Action – A Response to Australia: The Healthiest Country by 2020 – The Report of the National Preventative Health Taskforce [432] (hereafter referred to as Taking Preventative Action) was published in May 2010 by the Australian Government. Through the 125 pages of Taking Preventative Action, the Government responded to all 35 key action areas and 136 specific recommendations included in the Taskforce report, including the 10 key action areas and 33 specific recommendations for obesity prevention. With respect to obesity prevention, the Australian Government noted that it supported most of the specific recommendations relevant to its jurisdiction, and described the funding commitments and program initiatives that had
already been established that addressed these. A number of recommendations were noted for consideration, such as the recommendation to consider the introduction of Health Impact Assessments for all government policies. A number of the recommendations were to be referred to the National Health Prevention Agency, the establishment of which was the subject of the very first recommendation in the report and supported by the Government.

The only obesity prevention recommendations not supported related to amendments of the taxation system. These recommendations included introducing taxation to promote active living, greater levels of physical activity, lower levels of sedentary behaviour, the production of healthier food and beverage products (including reformulation of existing products), increased consumption of healthier food and beverage products, decreased production, promotion and consumption of unhealthy food and beverage products, and promotion of healthy weight. The Government noted that it had already commissioned an independent review of the Australian taxation system which had not recommended the introduction of such a taxation system, and that it did not intend to commission a further review of economic policies and taxation systems at that time.

Although the document was explicitly focused on the report of the National Preventative Health Taskforce, it made no mention at all of the House of Representatives Standing Committee on Health and Ageing inquiry into obesity or subsequent report *Weighing it up: Obesity in Australia*, which was released one month prior to the National Preventative Health Taskforce report.

### 5.1.3 Social Marketing Campaigns

The *Measure Up* social marketing campaign was initiated by the Australian Government in 2006 [433]. As the name clearly states, *Measure Up* is focused on the measurement of health through waist circumference. The *Measure Up* campaign website provides a range of resources, all of which are framed within the overarching message of assessing health through waist circumference. The nominated target
audience for the campaign is men and women aged between 25-50 years who have children, and all men and women aged between 45-65 years. The campaign resource items include brochures, posters, a tape measure, a 12 week planner, a community guide and a television advertisement. The campaign slogans are ‘The more you gain, the more you have to lose’ and ‘How do you measure up?’

**Tomorrow People** is the component of **Measure Up** designed specifically for Indigenous Australians [585]. The link to the *Tomorrow People* website is included in the **Measure Up** Resources page. *Tomorrow People* resources include a microsite hosted on the **Measure Up** website, a booklet, posters, print and radio advertisements that provide information primarily focused on healthy eating and physical activity. The campaign slogan is ‘Tomorrow People starts today. Do it for our kids. Do it for our culture.’ None of the resources for *Tomorrow People* use the **Measure Up** branding imagery, colours, design or slogans. Four well known Indigenous Australians are used throughout the resources to deliver the campaign information.

In 2011, phase two of the **Measure Up** social marketing campaign was launched [528]. As with phase one of this campaign, phase two, titled *Swap It, Don’t Stop It*, explicitly focuses on body weight. The rationale provided on the front page of the campaign web site introduces the balloon character Eric.

*Hi, my name’s Eric. Over the years my belly has ballooned and ballooned. It’s come time to do something about it — the last thing I want is to end up with some cancers, type 2 diabetes and heart disease.*

*That’s why I’ve become a Swapper! What’s a swapper? It’s simple really. It just means swapping some of the things I’m doing now for healthier choices. That way I can lose my belly, without losing all the things I love. It’s easy!*

To date the campaign has produced almost 30 branded resource items ranging from brochures, posters, cards, fact sheets and recipe collection to print, radio, television and online advertisements. All resource items include images or text of Eric, the
central character, and most include the image of the tape measure used in the Measure Up campaign.

The Swap It, Don’t Stop It campaign also includes resources specifically directed at reducing body weight for Indigenous Australians. They include two posters taken directly from the generic campaign with a dot painting motif characteristic of the artwork of some Aboriginal people added to the background. The other resource is a radio advertisement with what sounds like the voice of an Aboriginal man and a woman of indeterminate origin. There is no link from the Swap It, Don’t Stop It campaign website to the Tomorrow People website.

5.1.4 Weighing it up: Obesity in Australia

The Australian Government House of Representatives Standing Committee on Health and Ageing Obesity Inquiry published its report Weighing it up: Obesity in Australia [524] (hereafter referred to as Weighing it up) in 2009. The 223 page report described the results of 16 public hearings, 158 submissions and 97 exhibits received from across the country. Although the inquiry was being conducted at the same time as the National Preventative Health Taskforce process, the Committee felt that their report would differ from the Taskforce report ‘in that it also, importantly, serves as a platform for many stakeholders to share their views and tell their stories’ (Weighing it up p. viii).

The report detailed the collated evidence on the personal, social and economic costs of obesity to Australia, and programs in place to address the issue. This was followed 20 general recommendations on what governments, industry, individuals and the broader community can do to ‘reverse our growing waistlines’ (p. viii).

Almost four years after the publication of the House of Representatives Standing Committee on Health and Ageing report Weighing it up: Obesity in Australia, in February 2013 the Australian Government response to the House of Representatives Standing Committee on Health and Ageing report: Weighing it up: Obesity in Australia [529] (hereafter referred to as Weighing it up Government response) was released. In
the 22 page document the Australian Government responded to each of the 20 recommendations included in *Weighing it up*; 14 recommendations were agreed to by the Government, two were agreed to in principle, 2 agreed to in part, and 2 were noted. The *Weighing it up* report was released around the same time in 2009 as the *National Preventative Health Strategy Roadmap*, and included a number of similar recommendations. The Government had already presented a detailed response to the *Roadmap* in *Taking Preventative Action*, and therefore most of the Government’s responses to the 18 recommendations with which it agreed in whole or in part in *Weighing it up* referred directly to initiatives described in *Taking Preventative Action*. The response to *Weighing it up* refers to *Taking Preventative Action* as ‘the central document for guiding Australia’s obesity prevention and management policy’ (p. 2).

### 5.2 Conclusion

This chapter introduced the results chapters and then described the ten documents selected for analysis in this study. All of the documents are focused specifically on body weight and represent the complete history of the Commonwealth Government of Australia’s commitment to obesity prevention. The next chapter presents and discusses the meta-level discourses identified in the analysis.
**Chapter 6  Meta-level discourses**

**6.0 Introduction**

Chapter 5 introduced the results chapters and described the documents selected for analysis. The results of the critical discourse analysis of the selected weight-related public health initiatives are presented and discussed in Chapters 6, 7 and 8. This chapter presents the **meta-level discourses** identified in the documents (Figure 6). Chapter 7 presents the results related to the philosophical values and principles that focus on **why** weight-related public health initiatives were needed, and discusses these results in relation to the literature. Chapter 8 presents the results related to the philosophical, ethical and technical values and principles that focus on **what** weight-related public health strategies were proposed or currently implemented, and discusses these in relation to the literature. The results are discussed at the theoretical level in Chapter 9.

![Figure 6: Schematic diagram of Chapter 6 contents](image)

Given the scope of this study, there are many results to be presented and discussed, and numerous concepts used to do so. As such I have used colour coding to help
differentiate between the concepts. Throughout this and the following results and discussion chapters, the health promotion values and principles in the values and principles continuum are presented in bold blue font. Terms related to discourse practices (textual practice, discursive practice and social practice) and discourse strategies (for example claims-making, suppression and metaphor) are presented in bold green font. Terms related to the boundary critique and reflective practice components of Critical Systems Heuristics are presented in bold orange font. The colour coding key is included in the footer throughout the results and discussion chapters.

The two meta-level discourses identified in the documents were the discourse of principles and the discourse of prevention.

6.1 Discourse of principles

Result and discussion

Documents were analysed for evidence of the inclusion of explicit reference to values and principles underpinning and/or guiding each weight-related public health initiative. A value is an idea or concept that is regarded as worthy, desirable or useful. A principle describes the code of conduct or a rule for action, and is generally regarded as action-oriented [55]. None of the documents analysed named any values related to the initiative. Four of the documents included an explicit list of principles. Some of these principles were more consistent with values as reflected in the definition above, rather than action-oriented principles. However they were all named as principles in the documents and as such will be referred here to as principles.

The earliest document included in the study, Healthy Weight, included a set of guiding principles. These principles stated that actions addressing healthy weight should:

- Concentrate on solutions not problems—with a bias for action on health promoting environments.
• Be long-term and sustainable, recognising that behaviour change is complex, difficult and takes time.
• Engage the whole community—healthy weight is everybody’s business.
• Help those most in need and close the health gap between different population groups as a result of geography, ethnicity, and socio-economic status.
• Promote the positive benefits of healthy eating, active living and healthy weight.
• Reduce stigmatisation and avoid blaming young people, parents or carers.
• Empower and assist all groups to take action according to their own opportunities and responsibilities (Healthy Weight p. 4).

The discourses evident in these principles (and the overall focus of the document) reflected a number of health promotion values and principles in varying positions along the continuum, and across the philosophical, ethical and technical domains. However most of the Healthy Weight guiding principles related to the philosophical domain. The name of the document – Healthy Weight – was evidence of the biomedical health paradigm, with its focus on physiological characteristics, but there was a clear attempt in the use of the term ‘healthy weight’ rather than ‘obesity’ to frame the issue as a positive, desirable state. The healthy weight discourse was somewhat less traditional than the discourse of obesity as disease. In recognising that behaviour change is complex and difficult, the principles reflected to a moderate degree an ecological science approach to the determinants of the issue.

Two of the principles highlighted focusing on strengths and positive benefits. This was a somewhat modern approach to strengths-based programs, which emphasise salutogenic factors that create health and wellbeing. In considering who to work with or focus on, the principles highlighted focusing on the whole population (traditional value) as well as specific population groups determined by equity (modern value). The principle of empowering and assisting groups to take action was a somewhat modern approach to incorporating enabling and empowering health promotion strategies. From the ethical domain, one of the Healthy Weight principles focused on the need to avoid blaming young people, parents and carers, and to also reduce stigmatisation. This principle reflected to some degree the recognition that health promotion actions should do no harm, and therefore was somewhat consistent with the modern health
promotion value of non-maleficence is a priority consideration. The principle of focusing on creating supportive, health promoting environments was moderately reflective of the modern health promotion technical value of a portfolio of multiple strategies. Overall, the guiding principles of Healthy Weight were somewhat reflective of the modern values and principles of health promotion, and concentrated more on philosophical than ethical or technical values and principles.

The Healthiest Country Discussion paper described two sets of principles for ‘preventative health’ generally: community-driven principles and governance principles. Some of these principles are really values – such as equity, which is a concept that is valued rather than an action oriented statement. Nonetheless they are all referred to in this analysis as principles, as this is how they are named in the document. These principles ‘reflect what people in the community generally expect from an effective preventative health system, and outline the principles that can guide effective action by governments’ (Discussion paper p. 6). The same principles were listed in the Obesity Technical Report.

Community-driven principles included:
- Strengthening prevention
- People and family centred
- Equity
- Shared responsibility
- Recognising broader environmental influences

Governance principles included:
- Common frameworks
- Comprehensive, staged approach taking long-term view
- A mix of universal and targeted approaches
- Selected settings for action
- A comprehensive support system

Although the issue addressed in the Healthiest Country Discussion paper was framed as ‘obesity’ and the hegemonic (obesity) prevention discourse were strongly consistent
with the traditional health promotion value of a biomedical health paradigm, the principles themselves were somewhat more reflective of modern health promotion values and principles. Prioritising people, family centred action and sharing responsibility were somewhat consistent with the modern ethical value of active participation of people in the health promotion process. A focus on equity was strongly consistent with the modern philosophical health promotion value of pursuing health as a resource for living as the motivator for action.

Recognising broader environmental influences on health was somewhat consistent with the modern health promotion value of ecological science. A mix of universal and targeted strategies was somewhat consistent with both modern and traditional values regarding who to work with. Modern health promotion prioritises groups determined by equity considerations, whilst traditional health promotion focuses on the whole of the population. The balance of the principles related to governance including common frameworks, comprehensive, staged approach, selected settings and comprehensive support systems were strongly consistent with the modern technical health promotion value of having a portfolio of multiple health promotion strategies at multiple levels from individual to population, and within multiple settings.

Overall, despite the naming and framing of the issue of obesity prevention, the principles were more consistent with modern health promotion values and principles than traditional. This may have resulted from the greater focus on technical principles (roughly half the principles were technical). This represented a significant shift in emphasis from the Healthy Weight principles, which included only one technical principle and were therefore more focused on philosophical and ethical issues.

Although much of the general content from the Discussion paper was replicated in the Roadmap, there was a notable absence of the set of principles presented above. There was however, a new set of principles that were ‘identified from evidence from the research literature, and confirmed through consultations and submissions to the Taskforce’ (Roadmap p. 36). Using the textual practice of suppression, there was no
mention of the previous set of principles from the Discussion paper. The four new principles underpinning the Strategy were:

- Maximising community wellbeing – by building a roadmap with staged approaches for strategic prevention across the whole of life, in a variety of settings and for a wide range of population groups.
- Working together – with individuals, families, communities, health professionals, industry, employers and governments to build prevention in Australian communities.
- Addressing health equity – through recognition and response to the causes and effects of health inequity, especially for Indigenous people.
- Ensuring effective implementation – through a strong infrastructure that supports individuals and communities in making and sustaining healthy choices (Roadmap p. 36).

Some of these principles addressed the same or similar issues to those in the Discussion paper. For example, equity was mentioned explicitly in both sets of principles. Maximising community wellbeing addressed similar concepts to the comprehensive, staged approach in selected settings. Working together addressed similar concepts to people and family centred action and shared responsibility. Ensuring effective implementation addressed similar concepts to a comprehensive support system. However there were two notable shifts in the discourse between these principles and those in the Discussion paper.

Firstly, the principle of recognising broader environmental influences on health that was present in the Discussion paper was absent from the Roadmap principles. This use of the textual practice of suppression suggested a move away from the modern ecological science approach. The second and related discursive shift away from complexity and towards reductionism involved a new emphasis (in the principles at least) on ‘making and sustaining healthy choices’. Framing body weight as a function of healthy choices, particularly in conjunction with the absence of recognition of environmental factors, was strongly consistent with a traditional reductionist science approach. The appearance of the ‘healthy choices’ discourse in this set of principles was consistent with the dominance of this discourse throughout the documents (examined in more detail in the section below on the different scientific approaches),
but this was the first appearance of this discourse in the explicitly stated principles underpinning a weight-related public health policy.

In yet another use of the **textual practice of suppression**, all references to principles underpinning the Strategy were absent from the *Strategy Overview*. At 57 pages, the *Overview* was considerably shorter than the 167 page *Strategy Roadmap* and of all the *National Preventative Health Strategy* documents, is arguably the one most likely to be widely disseminated and read. However, according to the *Roadmap*, the principles were ‘identified from evidence from the research literature, and confirmed through consultations and submissions to the Taskforce’ (*Roadmap* p. 36), and as such were deemed to be important to include in the *Roadmap*. The subsequent absence of the principles from the *Overview* is an important and significant omission. Consistent with the absence of principles in the *Overview*, there were no principles explicitly stated in the Government’s response *Taking Preventative Action*. Given that *Taking Preventative Action* is now regarded as the ‘central document for guiding Australia’s obesity prevention and management policy’ (*Weighing it up: Australian Government Response* p. 2), the absence of an explicit statement of underpinning principles from this document was also an important omission.

Analysis of the progression of principles from *Healthy Weight 2008* forwards revealed an ever narrowing discourse on principles that ultimately disappeared completely in the *Overview* and *Taking Preventative Action*. The **textual practice of suppression** or **lexical absence** served to reduce and then eliminate completely any discourse on principles underpinning the public health initiatives. This was indicative of the **social practice** evident in the documents, where the documents’ authors used their **authority** and **power** to include or suppress reference to explicit principles.

As will be demonstrated in section 6.4 below, all of the concepts in the explicitly stated principles were in fact addressed in other sections of the *Healthiest Country* documents, including *Taking Preventative Action*. However the **lexical choice** of including a list of principles provided a ready framework or a shorthand method of
identifying the important factors that underpinned the strategies. The absence then, of an explicit set of principles from the *Strategy Overview and Taking Preventative Action* meant that no such ready reckoner on principles was available. This could be indicative of a perceived lack of importance on the part of the authors to explicitly communicate their values and principles to the community.

The **boundary critique** of the explicit principles included in the documents identified the presence of certain health promotion values (as they related to the actions proposed), and also the values of the power holders with respect to the inclusion (or not) of an explicit set of principles.

### 6.2 Discourse of prevention

**Result and discussion**

‘The way we name things shapes our feelings, judgements, choices and actions’ [586] (p. 11). In Porter’s critical analysis of the changing discourse in health promotion from the 1986 Ottawa Charter for Health Promotion to the 2005 Bangkok Charter for Health Promotion in a Globalized World, she noted ‘a move from socially proactive to biomedically defensive health promotion’ [45] (p. 77). The adoption of a ‘biomedically defensive health promotion’ discourse was similarly evident in this study. Quantitative analysis of the words used to name the intended outcomes of the public health initiatives, and the processes used to achieve these outcomes revealed a backgrounding of the discipline of health promotion, and a foregrounding of the concept ‘preventive/preventative health’, consistent with the **biomedical health paradigm**.

From *Healthy Weight 2008* forward, the **textual practices** of overlexicalisation and **lexical suppression** were evident. Firstly, the term ‘health promotion’ was used sparingly, and in many instances it was coupled with the term ‘illness prevention’. Neither term was used in the social marketing campaigns *Measure Up* and *Swap It, Don’t Stop It* and therefore this analysis is focused on the other documents examined in the study. Secondly, terms relating to ‘prevention’ were used extensively.
throughout the documents. Excluding the use of prevention-related terms in the title of the National Preventative Health Taskforce and the *National Preventative Health Strategy*, there were 437 uses of the terms health promotion, illness prevention, disease prevention, preventive health, preventative health in the documents analysed.

Where used, each term was most likely to be used alone. Health promotion was used alone 51 times (12% of the total), and coupled with a prevention-oriented term 16 times (4% of the total). Half of these uses were in the *Australia the Healthiest Country by 2020 Discussion paper*, where the term health promotion/illness prevention was used throughout the document. Subsequent *Healthiest Country* documents saw a rapid decline of the use of this joint term, and a concomitant rise in the use of prevention-oriented terms alone (Table 6).

**Table 6: Prevalence of specific terms in weight-related policy documents**

<table>
<thead>
<tr>
<th>Policy document</th>
<th>Illness prevention or disease prevention alone</th>
<th>Preventive or preventative health*</th>
<th>Prevention and health promotion coupled</th>
<th>Health promotion alone</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Healthy Weight</td>
<td>1</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Discussion paper</td>
<td>5</td>
<td>14.7</td>
<td>17</td>
<td>50.0</td>
<td>8</td>
</tr>
<tr>
<td>Obesity Technical Report</td>
<td>1</td>
<td>6.7</td>
<td>6</td>
<td>40.0</td>
<td>2</td>
</tr>
<tr>
<td>Overview</td>
<td>0</td>
<td>0</td>
<td>50</td>
<td>84.7</td>
<td>0</td>
</tr>
<tr>
<td>Roadmap</td>
<td>2</td>
<td>1.7</td>
<td>103</td>
<td>85.1</td>
<td>3</td>
</tr>
<tr>
<td>Taking Preventative Action</td>
<td>1</td>
<td>0.6</td>
<td>164</td>
<td>91.6</td>
<td>3</td>
</tr>
<tr>
<td>Weighing it up</td>
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<td>0</td>
<td>10</td>
<td>71.4</td>
<td>0</td>
</tr>
<tr>
<td>Weighing it up Govt Response</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>71.4</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>2.3</td>
<td>360</td>
<td>82.4</td>
<td>16</td>
</tr>
</tbody>
</table>

* Excluding references to the National Preventative Health Taskforce or the *National Preventative Health Strategy*

Health promotion was used alone 40% of the time in the *Obesity Technical Report*. This is the highest rate of use of the term health promotion in any of the policy documents.
The Obesity Technical Report included a detailed literature review of strategies designed to address the issue of obesity, and therefore included many studies that used the term health promotion. With the publication of the National Preventative Health Strategy Overview and then the Roadmap, references to health promotion alone decreased to 15% and 11% respectively, demonstrating further lexical suppression. The hegemonic power of the prevention discourse grew further with the Government’s response Taking Preventative Action where the term health promotion was used alone only 6% of the time and a prevention-focused term was used alone 92% of the time.

An interesting finding from this analysis was the dominance of use of the term ‘preventive health’ or ‘preventative health’, which draws on the biomedical concept of prevention but attempts to remove the disease connotation by coupling it with the term ‘health’. The resulting term is at best lexically questionable and at worst nonsensical. The goal of preventive health is not to prevent health, but to prevent illness, injury, disease and death. Thus, despite the attempt to present preventative health as a positive concept by including the word health, it cannot escape its root meaning of avoidance of bad health. Despite the absolute dominance of the term preventive/preventative health in these Australian Government policy documents, perhaps the proximity of the term to oxymora has resulted in it gaining little to no traction elsewhere. That is not to say that prevention related terms are not in use, but they are not the truncated version seen here, and hence make more literal sense.

Terms that are widely used in the fields of clinical practice, public health and health promotion include preventive health behaviours/practices (behaviours or practices that contribute to prevention of health problems) [587]; preventative health education (specific process used to prevent health problems) [588]; preventative health model (processes used to prevent health problems) [589]; preventive medicine (processes used to prevent health problems) [590]; and preventive health care/services (services provided for the prevention of health problems) [591]. But the scaled-back term ‘preventive/preventative health’ is unused almost anywhere else. The nonsensical
nature of the term and the cognitive dissonance required to use it potentially account for its notable absence from health related policies or programs elsewhere, and confinement to Australian Government initiatives including those examined here, and the Preventative Health Research Flagship of the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia’s national science agency [592].

Despite its almost universal absence from any arena outside of these Government policies and programs, as with many discourses driven by powerful forces such as Governments, the term may begin to infiltrate other sectors of society. There is some evidence of this occurring in the academic setting. Governments are major employers of health promotion practitioners, and in a market driven university sector, it is perhaps not surprising to see a university responding by changing academic program names to be consistent with the Government’s discourse. The first and perhaps not the last university to do this is the University of Notre Dame Australia, which now offers a Bachelor of Preventive Health [593]. Despite the adoption of the hegemonic name, the description of the program is more consistent with health promotion discourse:

The study of health and physical education provides essential knowledge, practical skills and leadership qualities to individuals who want to improve the health, wellbeing and physical literacy of young people in the community through health and physical education.

Likewise, the graduate student testimonial on the program’s website does not use any ‘preventive health’ language:

I love that I work on many different projects and events that aim to keep people mentally and physically healthy. I feel like I am making a difference to the health and wellbeing of our community.’ Jessica Diggins (Act Belong Commit), Bachelor of Preventive Health Graduate.

The textual practices of foregrounding the term prevention through overlexicalisation, and backgrounding the term health promotion through lexical suppression served to invisibilise or remove recognition from health promotion as a discipline and practice, and replace it with the reductionist biomedical health
paradigm concept of disease (health) prevention. This movement occurred within a political climate of increasing social and economic conservatism implemented by the Rudd Labour Government [594]. According to de Leeuw, ‘Some would simply attribute this change in rhetoric to Zeitgeist and the swing to liberal and neo-corporatist perspectives, even in political systems with strong social democratic tendencies. However true, this may be too simple a view’ (p. 142).

As de Leeuw noted, ‘It may be that a preventative health agenda (in Australia) serves the political craze of the day in a volatile environment [595] (p. 142), but the loss of health promotion discourse was inconsistent with the global arena, where Scott-Samuel [596] (p. 116) claims,

...the discipline of health promotion is on a firmer footing with the term widely used, many countries having national associations, continuing WHO-sponsored global conferences on HP ... and the Ottawa Charter ... still providing the platform for strategic developments and national policy.

Most recently, the Nairobi Call to Action [597] and the Adelaide Statement on Health in All Policies [598] show that ‘a strong commitment from politicians and practitioners to a powerful positive health approach in all sectors and levels of society is possible and worth pursuing’ [595] (p. 142).

Despite the strong global position, the disappearance of health promotion discourse has also been noted in some other countries. In Canada the term ‘population health’ has gained the ascendancy over health promotion because, it is argued, it provides a depoliticised discourse consistent with the retreat of the welfare state in that country [18, 599]. Since 1997, when ‘New’ Labour was elected to government in England, the hegemonic language shifted inexorably towards ‘public health’ or ‘health improvement’ [596, 600]. Although the new commitment to public health was regarded as a largely positive development, it signalled the start of the decline in health promotion discourse [600]. The disappearance of the discourse and professional
recognition of the discipline of health promotion prompted one editorial to ask if health promotion is now a corpse or just a sleeping beauty? [596]. If health promotion discourse is indeed just sleeping, at least in Australian Government weight-related policies and programs, the quantitative analysis of terms used in this study may have provided some ideas about the source of its life-sustaining breath (Table 7).

Table 7: Uses of the term health promotion (HP)

<table>
<thead>
<tr>
<th>Document</th>
<th>N</th>
<th>Use of term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy Weight 2008</td>
<td>0</td>
<td>Nil</td>
</tr>
<tr>
<td>Healthiest Country Discussion</td>
<td></td>
<td>2 HP practitioners</td>
</tr>
<tr>
<td>paper</td>
<td>4</td>
<td>1 HP Foundations</td>
</tr>
<tr>
<td>1 WHO HP definition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthiest Country Obesity</td>
<td></td>
<td>3 HP programs, strategies and activities</td>
</tr>
<tr>
<td>Technical Report</td>
<td>6</td>
<td>2 HP practitioners</td>
</tr>
<tr>
<td>1 workplace HP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthiest Country Overview</td>
<td></td>
<td>7 workplace HP</td>
</tr>
<tr>
<td>1 HP Foundations</td>
<td>9</td>
<td>1 HP Foundations</td>
</tr>
<tr>
<td>1 HP associations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthiest Country Roadmap</td>
<td>13</td>
<td>7 workplace HP</td>
</tr>
<tr>
<td>3 HP programs, strategies and</td>
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<td>activities</td>
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<td>1 WHO HP definition</td>
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<td>1 HP Foundations</td>
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<tr>
<td>1 mental HP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taking Preventative Action</td>
<td>11</td>
<td>6 HP programs, strategies and activities</td>
</tr>
<tr>
<td>2 Workplace HP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 HP in all policies</td>
<td></td>
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</tr>
<tr>
<td>1 HP investment</td>
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<tr>
<td>1 mental HP</td>
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<tr>
<td>Weighing it up</td>
<td>4</td>
<td>4 HP programs, strategies and activities</td>
</tr>
<tr>
<td>Weighing it up Government</td>
<td>4</td>
<td>3 Workplace HP</td>
</tr>
<tr>
<td>Response</td>
<td></td>
<td>1 HP practitioners</td>
</tr>
</tbody>
</table>
| From this analysis it was evident the textual practice of word connotations placed the term health promotion most frequently within the context of the programs, strategies and activities. Indeed, of the total of 51 uses of health promotion alone, 37 of these (73%) occurred within this context. Other uses of the term health promotion related to health promotion practitioners, foundations, associations and investment, the WHO definition of health promotion and mental health promotion. Within the context of programs, strategies and activities, the textual practice of word connotations placed the term health promotion most frequently within the specific context of the
workplace. Of the 37 uses of the terms related to programs, strategies and activities, 20 of these refer to workplace health promotion. This represented 39% of the total uses of the term health promotion, which was by far the most common specific use of the term.

The identification of settings such as workplaces for ‘preventative health’ action was common across many of the documents. For example *Healthy Weight* identified a range of settings in which health promotion action would need to take place, including child care, schools, primary care services, family and community care services, neighbourhoods and community organisations, workplaces, food supply, and media and marketing. Similar settings were identified in the *Healthiest Country* documents.

However, as evidenced in the table above, something about workplace health promotion has struck a chord in these documents, and enabled it to be used where other specific settings based terms such as health promoting schools, health promoting universities, health promoting health care services, healthy cities, etcetera have not. Workplace health promotion has a WHO program to support it, a model of practice, national and international associations and professional journals dedicated to it. But likewise, there are WHO supported initiatives for health promoting schools, health promoting health care services and healthy cities. For example the health promoting schools program has an established model of practice, robust support structures, and strong national and local support in Australia provided by the Health Promoting Schools Association. So why is the term ‘workplace health promotion’ mentioned so frequently in the policy documents, and health promoting schools, or any other health promoting setting term is not mentioned once in any of the documents? One possible explanation may be drawn from the examination of the role economic power as a social practice operating within the documents.

For-profit companies ‘providing’ workplace health promotion programs are prevalent in the Australian health promotion landscape, with many companies now claiming to provide health promotion programs to workplaces [601]. These programs often
consist of individual employee health risk assessment and health education, and therefore do not reflect the comprehensive workplace health promotion model of practice [602]. For-profit companies selling ‘weight-loss’ programs are also tapping into workplaces as a major customer source [603] and also focus their strategies on individuals and their behaviours. For example Weight Watchers has developed a weight loss program for implementation in workplaces titled Health Solutions [604], and has partnered with health insurance providers in the US to deliver weight loss programs within workplaces [603].

There is powerful economic incentive for a range of for-profit organisations to sell their ‘health promotion’ programs to workplaces, and equally powerful economic, moral and social incentives for workplaces to institute workplace health promotion programs [601]. Of course other settings have the same economic, moral and social incentives to institute health promoting schools, health promoting health services and health promoting cities programs [605], but there is little opportunity for profit-making ‘health promotion providers’ within these largely not-for-profit sectors, and vast opportunity within the workplace sector. In a neoliberal capitalist environment where the free market is valued, it might be expected that advocacy for workplace health promotion programs from those with the greatest potential to make profit from such programs would be stronger than advocacy for health promoting settings programs in schools, hospitals and cities, where there is less opportunity for profit-making.

From the documents analysed it was apparent that a number of for-profit organisations operating in workplaces took the opportunity to make submissions and/or appear before the hearings. For example, Weight Watchers Australia made a written submission to the Parliamentary Inquiry on Obesity, appeared before the hearings, and was quoted in the Weighing it up report. The Weight Management Council, a peak body representing four of the largest weight loss companies in Australia, made a submission to the Healthiest Country process. Although it was beyond the scope of this study to examine the content of these submissions let alone determine the relative contribution that these organisations made to advocating
specifically for workplace health promotion versus other settings based health promotion, other studies have identified the power of industry to influence government policy. For example, Jenkin et al. [606] examined the framing of submissions to the New Zealand inquiry into obesity and found that those from the marketing and food industries argued more strongly for health education strategies focused on individual behaviours, compared to submissions from the public health sector. Furthermore, Jenkin found that the strategies proposed in the industry submissions were disproportionately represented in subsequent Government food policy [607].

Through the Critical Systems Heuristics process of boundary critique, I identified the backgrounding of health promotion discourse and the foregrounding of prevention discourse across the documents. Prevention discourse was ascribed merit or value, and was privileged at the expense of globally recognised health promotion discourse.

### 6.3 Conclusion

This chapter presented and discussed the analysis of the explicitly stated values and principles that underpinned four of the documents. I also discussed the absence of such principles from two documents. The chapter then presented and discussed the hegemonic discourse of prevention evident in the documents. The next chapter presents and discusses the results related to the values and principles in the health promotion values and principles continuum that focus on why weight-related public health initiatives were needed.


Chapter 7  
Values and principles related to why weight-related public health initiatives were needed

7.0 Introduction

The previous chapter presented and discussed the analysis of the discourse of principles and the discourse of prevention identified in the documents. This chapter presents the results related to the values and principles that focus on why public health initiatives were needed (Figure 7) and discusses the results in relation to the literature. The results are discussed at a theoretical level in Chapter 9. This chapter addresses values and principles in the health promotion values and principles continuum that focus on worldview, epistemology, health paradigm, science approach, motivation for health and assumptions about people.

Figure 7: Schematic diagram of Chapter 7 contents
In this chapter and the next, each result is presented in three sections. Firstly, the health promotion values and principles reflecting each end of the health promotion values and principles continuum are described. Secondly, the discourse practices and strategies used within the documents to frame the discourse about these values and principles are identified and discussed. Thirdly, each result is summarised and discussed with respect to boundary critique and reflective practice components of Critical Systems Heuristics. The results of the boundary critique are identified. Then the result of reflective practice using the health promotion values and principles continuum as a critical questioning tool is presented. This consists of my interpretation of the relative positioning of the weight-related public health initiatives on the continuum between modern and traditional health promotion. A four point scale is used to indicate if the initiatives reflect strongly modern, somewhat modern, somewhat traditional or strongly traditional health promotion.

The discourses presented and discussed in this chapter are as follows. In focusing on the worldview on equity, I identified ‘addressing inequality’ as the major discourse. With respect to the worldview on responsibility, there were two competing discourses: ‘everyone’s responsible’ and ‘ultimately individuals are responsible’. An ‘objectivist’ discourse was evident in the epistemological construction of the issue and the solutions to the issue, and a ‘constructivist’ discourse was also evident in the epistemological construction of the solutions to the issue. The ‘biomedical health’ discourse was evident as the health paradigm. In turning to the scientific approach, I identified mix of ‘social determinants of health’ discourses focusing on health systems, health behaviours, and the differential distribution of health status and behaviours according to group membership. The ‘ecological’ and ‘reductionist’ discourses were both evident in relation to the scientific approach to the determinants of body weight. I identified the ‘alarm, threat and fear’ discourse and an associated ‘healthism’ discourse in relation to motivation for health. Finally, the ‘people are naturally unhealthy’ discourse was dominant in relation to assumptions about people. These results are presented and discussed in this chapter.
7.1 Philosophical values and principles

7.1.1 Worldview

Description

The first values and principles in the health promotion values and principles continuum relate to how the weight-related public health initiatives convey assumptions about how the world is understood to function and the large scale political and social ideologies that are at play in creating this view. The health promotion values and principles continuum identifies an organic worldview, in which the world and people within it are regarded as living, breathing, dynamic and connected, and social and ecological justice are valued, as consistent with modern health promotion. The continuum identifies the mechanistic worldview, in which the world and people within it are regarded as machine like individuals, and neoliberalism, individualism and capitalism are valued, as consistent with traditional health promotion. Analysis explored the social practices used in the documents to convey or imply ideological positions, and the role played by power and authority in supporting or disturbing the ideological discourse. Analysis also explored how hegemonic was the discourse, and whether there was any evidence of instability, inconsistency or vulnerability in the discourse. Two major discourses were identified related to worldview: equity and responsibility.

7.1.1.1 Equity

Result and discussion

Through the analysis I identified ‘addressing inequality’ as the major discourse evident across the documents.

The textual practice of intertextuality was used in the Healthiest Country documents to highlight the common agenda between the National Preventative Health Taskforce process and other processes occurring in Australia and around the world. For example:
In formulating its recommendations, the Taskforce has been particularly concerned with the need to address the unequal distribution of health and risk in Australia. In this, the Taskforce’s views are firmly in alignment with other contemporary developments in Australia and internationally, including:

- The (National Health and Hospitals Reform Commission) NHHRC, which identified ‘Facing inequities: recognise and tackle the causes and impacts of health inequities’ as one of four major themes in its Interim Report
- The targets and priorities set out under the COAG ‘Close the Gap’ objective to address Indigenous disadvantage, which include both health, such as life expectancy and child mortality, and ‘social determinants’ targets, such as education and employment
- The Australian Government’s Social Inclusion Agenda, and similar initiatives introduced at the state level (such as South Australia’s Social Inclusion initiative)

However social practice analysis revealed significant instability in the discourse as demonstrated by considerable slippage between the use of the terms ‘inequity’ and ‘inequality’. There was some confusion between the meanings of the terms, particularly in the Healthiest Country documents, resulting in their interchangeable use.

Equity is a value about fairness, not sameness and cannot be determined normatively. Equality is the concept of quantitative sameness, and can be measured and surveyed. The terms ‘inequity’ and ‘inequality’ were both prominent and were used interchangeably, in some cases incorrectly. Despite the heavy usage of the term ‘inequity’, the discourse of fairness was found to be relatively minimal. The Discussion paper cited the WHO Commission on the Social Determinants of Health to provide a definition of health inequities as ‘unfair, unjust and avoidable causes of ill health’ (Discussion paper p. 5). Reducing inequity was one of seven strategic directions of the National Preventative Health Strategy, and closing the (health status) gap for Indigenous Australians was another, but aside from the definition provided by the WHO, the concept of fairness was only mentioned once in the Roadmap, and then repeated in the Overview.
Australians’ concern with fairness in relation to preventative health, together with their concern for the suffering of others, demands actions to support equity of access to the means to lead a healthy life. (Roadmap p. 32, Overview p. 26)

The Overview also claimed that, ‘We need this Strategy because Australia has a national commitment to fairness’ (Overview p. 6). In Taking Preventative Action, the concept of fairness was mentioned once in relation to the release of the Australian Government document A Stronger, Fairer Australia, which outlined the vision for social inclusion:

No Australian is left behind by giving all the opportunities, resources, capabilities and responsibilities to learn, work, connect with others and have a say in community life. Good health lays the foundation for, and is an outcome of, social inclusion (Taking Preventative Action p. 14).

In contrast, the discourse of inequalities was far more dominant, even if the term ‘inequity’ was used. Despite the lexical confusion, significant attention was paid to describing and addressing the normatively differential health status between various population groups. For example:

Major health inequities exist not only between Indigenous Australians and the general population, but between rich and poor and between rural and city dwellers. Even within a city such as Melbourne, life expectancy can vary by up to six years within a matter of kilometres (Italics added) (Roadmap p. 58).

Establishing a national health equity surveillance system, with routine collection and analysis of inequities in health outcomes, the behavioural risk factors and their social determinants (Italics added) (Roadmap p. 75).

Disadvantaged groups were identified based on higher rates of obesity, ‘unhealthy’ behaviours, chronic disease and mortality. For example:

The problem of overweight and obesity is not evenly distributed across Australian
society. It is most prevalent among the more disadvantaged groups in society, Indigenous Australians and some ethnic population groups, exacerbating existing health inequalities. Approximately 60% of Indigenous Australians aged over 18 are overweight, of whom 31% are obese. Indigenous Australians are 1.2 times as likely as non-Indigenous Australians to be overweight, 1.9 times as likely to be obese and over three times as likely to be morbidly obese. Men in the most disadvantaged economic group are also significantly more likely to be obese than those in the most advantaged group (19.5% compared with 12.7%), while for disadvantaged women the rate is nearly double (22.6% compared to 12.1%) (Roadmap p. 88).

The poorer morbidity and mortality status of Indigenous Australians was consistently highlighted as problematic, and in many documents warranted a separate section or chapter. The discursive practice of claims-making was evident whereby data about inequalities were presented as fact, citing authoritative sources and experts.

Although claims about the value of equity were strongly evident, the concept of equity was not positioned within an explicit social justice frame. There were no references to social justice in any of the documents, and references to the social justice concept of fairness were minimal. The hegemonic discourse was actually the discourse of inequality. The instability or slippage of discourse between equity (fairness) and equality (sameness) may be indicative of the reluctance of the document authors to explicitly identify the ideological value of social justice. The textual practice of overlexicalisation was used whereby the term equity, one of the central terms of social justice, was used extensively to imply the ideology, but the dominant discourse of equality weakened the ideological stance. The lexical absence of the term social justice enabled the documents to back away from or suppress any explicit identification of social justice as the overarching ideology. The social practice of foregrounding the ideological concept of equity but backgrounding the ideological concepts of fairness and social justice was particularly interesting given that most of the documents were produced during the period when the Australian Labour Party was in Government, and concepts of fairness and social justice are at the heart of Labour Party ideology: ‘Labour is for Fairness’ [608].
Reducing inequity is considered to be one of the core or fundamental values and principles of health promotion [35, 600, 609, 610], and so the lexical attention to the term ‘equity’ was consistent with modern health promotion. However the discourse slippage away from concepts of fairness and social justice was consistent with what Porter described as movement away from the health promotion discourse of ‘new social movements’ [45] (p. 75).

Summary

This section has described and discussed the extent to which the health promotion values and principles focused on worldview related to equity were evident in the documents. Through boundary critique I determined that the concepts of equity and equality were highly valued in the documents, but there was an assumption that they were interchangeable concepts. The lack of reference to fairness or social justice led me to determine that the documents only moderately reflected the value of equity. Through the process of reflective practice using the health promotion values and principles continuum as a critical questioning tool, I determined that the organic worldview related to equity was moderately dominant, and that the weight-related public health initiatives were therefore somewhat consistent with modern health promotion.

7.1.1.2 Responsibility

Result and discussion

The second area of social practice or ideological positioning evident in the documents related to the discourse of responsibility. Discourses related to specific causes and solutions for obesity are examined in sections below, but in this section the focus is on the broader issue of responsibility and its relationship to ideology. Through the analysis I identified two competing discourses: ‘everyone’s responsible’ and ‘ultimately individuals are responsible’.

Throughout all of the documents except the social marketing campaigns, responsibility for both the causes of obesity and the solutions to obesity was attributed to a complex
system of governments (at all levels), markets and industries, the community, families and individuals. For example:

The private and non-government sectors as well as the broader community have a vital role to play together with the public sector. ... A key success factor will be how well these different areas can work together' (Healthy Weight p. 4).

The National Preventative Health Strategy Overview highlighted that there is ‘a role for all Australians’ in obesity action. Weighing it up reported that ‘governments, industry, communities and individuals all have a stake’ (p. 5), and that a ‘whole-of-society response’ is required (p. 43). Taking Preventative Action stated that ‘In addition to the Government’s investments, there’s a need for action in every community and every family’ (p. ii). In general terms then, a discourse of collective responsibility was strongly evident.

This discourse was also evident in the detail of each document (excluding the social marketing campaigns). Healthy Weight outlined actions for each of the following sectors:

- National (Australian Government)
- Child Care
- Schools
- Primary Care Services
- Family and Community Care Services
- Maternal and Infant Health
- Neighbourhoods and Community Organisations
- Workplaces
- Food Supply
- Media and Marketing
Weighing it up recommendations were presented under the headings:

- What more can Government do?
- A role for industry
- Individuals (including individual and family responsibility)
- Community programs and partnerships

The National Preventative Health Strategy Roadmap stated that:

Achieving long-term sustainable change is likely to be difficult and resource-intensive, and will take time. It is not something that individuals or governments can do alone. To be effective, the approach needs to focus on engaging individuals, families and communities to make changes to their lives that will enable them to improve their nutrition and increase physical activity levels. Programs and strategies will need to be coordinated across all levels of government and across diverse portfolios, such as Transport, Treasury, Education, Health, Sport and Recreation. Partnerships with a range of industry groups and sectors will need to be strengthened and new alliances developed. In particular, partnerships with the food industry, private health insurance, media and advertising industry will be necessary for success. There is a need to build on the programs already undertaken by state, territory and local governments, and by the nongovernment sector (Roadmap p. 92).

The specific role of markets and government as part of the complex collective system of responsibility was highlighted in the Roadmap. For example:

What, and how much, people eat, drink and smoke and how they expend energy are responses to a number of factors – political, economic, environmental and cultural. A significant proportion of the global population now eats large volumes of energy-dense nutrient-poor foods, does not expend enough energy, smokes and consumes harmful quantities of alcohol. The harmful health consequences of these behaviours, and the inequity in their social distribution, are the result of both market failure and failure by government to protect the health of all its citizens. Greater accountability (by both parties) is needed (Roadmap p. 59).
The *National Preventative Health Strategy Overview* distilled the recommendations from the *Roadmap* into specific actions for each of the following sectors, reinforcing the need for collective responsibility from:

- Australian Government
- States and Territories (Governments)
- Local Governments, Community and Non-Government Organisations
- Schools
- Workplaces
- Food and Beverage Industry
- Advertising Industry
- Primary Health Care (Services)
- Maternal and Child Health Services
- Indigenous Communities
- Low SES Communities
- Individuals and Families

In both the general text and the specific sections of text, the ideology of collective responsibility (including individual responsibility) was strongly evident in the documents analysed. This was consistent with the health promotion value of an **organic worldview** in which everything is connected. The individual + society collective responsibility discourse on obesity has also been identified as a ‘health frame’ evident in obesity discourse elsewhere, most particularly in the USA [407, 457, 565]. It is consistent with social or modern liberalist ideology, in which the state has an accepted and indeed expected role in addressing economic and social issues [611]. Given that the majority of documents analysed were produced when the left leaning Labour Party was in government in Australia, it was therefore perhaps not surprising that this ideology was evident.
However social practice analysis revealed considerable instability in the discourse, with an opposing discourse of individual responsibility also strongly evident. In this discourse, it is ultimately the individual who was held responsible for their body weight and their health. Within the collective responsibility discourse, the individual is just one part of a dynamic system in which all parts are inter-related and no single part is held to account as having primary or ultimate responsibility. However within the individual responsibility discourse, the individual is framed as having primary or ultimate responsibility, rather than shared responsibility as part of a collective. The individual responsibility discourse was signified in the documents by the discursive practice of using epistemic (related to the truth or certainty) and deontic (compelling or instructing) modality words, particularly modal verbs and modal adverbs. For example:

Throughout the course of the inquiry, the Committee repeatedly heard that ultimately individuals must take responsibility for their own health, including their weight. Obesity is caused by an imbalance in energy intake (from diet) and expenditure (from activity). Individually we make the decisions as to how much we eat and how much activity we undertake. Evidence to the Committee indicated that a small, seemingly insignificant energy imbalance results in weight gain over time, implying that each of us can control our own weight by controlling what we eat and how much we exercise... To correct the energy imbalance, individuals need to develop a healthy lifestyle by making changes to correct their dietary habits and increase their activity levels (Weighing it up p. 119-120).

The extensive use of high modality words is demonstrated in the following analysis: Ultimately (epistemic modality adverb) individuals must take responsibility (deontic modality verb) for their own health, including their and weight. Obesity is caused (epistemic modality verb) by an imbalance in energy intake (from diet) (epistemic modality verb) and expenditure (from activity) (epistemic modality verb). Individually (epistemic modality adverb) we make decisions (epistemic modality verb) about how much we eat (epistemic modality verb) and how much activity we undertake (epistemic modality verb). Each of us can control (epistemic modality) our own weight by controlling (deontic modality) what we eat (deontic modality verb) and how much we exercise (deontic modality verb). To correct (deontic modality verb) the energy
imbalance, individuals need to develop (deontic modality verb) a healthy lifestyle by making changes (deontic modality verb) to correct (deontic modality verb) their dietary habits and increase (deontic modality verb) their activity levels. The verbs must, control, correct, develop, change, increase, eat and exercise are deontic modality verbs designed to instruct or compel the reader.

The high degree of modality of the epistemic verbs in the first part of this text was used to convince the reader of the certainty of the statements and to portray the statement-maker as authoritative. The high degree of modality of deontic verbs in the second part was used to instil power and authority in the instructions. These discursive practices resulted in the clear message from this passage and from the documents more broadly that individuals can and must control, correct and change their eating and physical activity, and thereby control their weight and health. This was inconsistent with the collective responsibility discourse that positioned the individual as simply one part of an organic, dynamic, complex system of determinants of body weight and solutions to the obesity problem.

The textual practice of ideological squaring, in which the tenets of different ideologies are explicitly addressed, can be used to highlight the differences between opposing ideological positions. But this was not what was happening with these discourses. In fact there was no acknowledgement that there was any inconsistency between the collective and individual responsibility discourses – they simply coexisted in the documents without any reference to the dissonance between their positions. The following excerpts from the Weighing it up report captured this unacknowledged dissonance in consecutive sentences:

It is the view of the Committee that obesity is not simply a matter of individual responsibility. While individuals are responsible for their own health … (T)he evidence presented in (the Foresight) report provides a powerful challenge to the commonly held assumption that an individual’s weight is a matter solely of personal responsibility or indeed personal choice (p. 116).
Individuals need to take responsibility for their own weight but the Committee notes that there are factors that impact on the ability of people to control their weight. These include biological factors, the obesogenic environment, psychological factors, lack of knowledge and/or education and socioeconomic factors. The Committee considers these issues to be a whole-of-society responsibility with redress falling to governments, communities, industry and individuals (p. 169).

In addition to the joint references to responsibility as both primarily individual and individual as part of the collective, there were many references to individual responsibility alone, particularly within the *Healthiest Country* and *Weighing it up* documents, without any concurrent reference to collectivist responsibility. Taking this a step further, the individual responsibility discourse was the only discourse evident in the social marketing campaigns. For example:

The Measure Up campaign aims to raise appreciation of why people need to change their lifestyles, and includes supporting information on "what to do" and "how to do it" (Measure Up).

Did you know that carrying excess weight around your waist can increase your risk of developing a lifestyle-related chronic disease such as type 2 diabetes, heart disease and some cancers? ... Healthy eating and getting active can help you lose centimetres from your waistline and prevent or delay the onset of some chronic diseases. There are some simple everyday changes you can make to get you on your way to a healthier lifestyle. (Swap It, Don't Stop It).

Examining the seemingly paradoxical coexistence of dissonant discourses revealed the implicit, and in some cases explicit assumptions that *ultimately*, body weight is controllable, and therefore within the control of the individual. Yes, it might be difficult, the reasoning goes, and yes there may be environmental, social and economic factors that play a role in shaping behaviours, but ultimately, behaviours are always within the control of the individual, and hence body weight is always within the control of the individual. The overwhelming power and authority of the proponents of this individualist discourse enabled these assumptions to dominate and go unchallenged.
The implication of the hegemonic individualist discourse is that individuals, irrespective of their genes, life-course, social position or environment, are charged with the responsibility of being more self-surveying, self-policing, self-disciplined and self-controlled, and therefore healthier. This is consistent with the individualist component of neoliberal ideology, and has been identified in various critiques of obesity prevention public health programs which centralise the self-responsible subject [447, 456, 612] and the concept of ‘healthism’, the moral obligation to pursue health through healthy behaviours or healthy lifestyles [477, 516, 613]. More broadly, the individualist discourse has been critiqued for its role in subordinating other models of health that do not place the individual in the centre. In their critical discourse analysis of the construction of the Ottawa Charter, McPhail-Bell et al. [46] argued that the hegemonic Western-centric individualist discourse served to silence other models of health and wellbeing including Aboriginal or indigenous models such as the Kwaio concept of wellbeing:

Thus, by way of excluding other health models and world views, the background papers worked to normalize Western individualistic neoliberal assumptions and in so doing created a conceptualization of health promotion implicitly Western and neoliberal in nature (p. 25).

Although widely identified as a dominant discourse in many parts of the world, it was interesting to note that the individualist discourse in the weight-related public health initiatives analysed in this study was not consistent with the discourse evident in the public health submissions to the New Zealand Obesity Inquiry [606]. Indeed Jenkin et al. determined that submissions from the public health field not only identified a complex web of inter-related causal roots and solutions, but they explicitly highlighted individual irresponsibility, lack of knowledge and lack of will-power as ‘non-causes’, and ‘education or information’ for individual behaviour change as ‘non-solutions’ to the issue of obesity (p. 1026).

The simultaneous existence of the dissonant collective and individual responsibility discourses in the documents was evidence of the hegemonic power of the individualist component of neoliberal political ideology. However other aspects of neoliberal
ideology were less evident or expressly opposed. One of the major components of the neoliberal agenda is the high value placed on the role of the market in economic development and growth [611]. Neoliberal ideology opposes government attempts to ‘interfere’ in markets through legislation and regulation, or the imposition of tariffs, taxes or other fiscal measures designed to influence the markets in any way [611]. However, except for the social marketing campaigns, the documents analysed both acknowledged the role of markets in creating environments supportive or detrimental to good health, and proposed strategies for influencing the markets proactively to promote better health. For example:

The purpose of the Strategy is to improve the health, wellbeing and life expectancy of Australians, and to remedy disadvantage in health status. Within this context, the components of the Strategy are based on the following four rationales:

- Influencing markets
- Inequities in health
- Developing effective policies
- Investing for maximum benefit (Roadmap p. 31)

When markets work efficiently, and consumers and producers act with full information, markets contribute significantly to community wellbeing. However, markets are imperfect and do not always produce optimal outcomes from a societal point of view. (Roadmap p. 31)

The food and beverage industry was particularly singled out for attention, with ‘market failures’ referring to the formulation, price, availability, accessibility, serving sizes, packaging, marketing and advertising of food and beverage products. Attention to other markets related to the production of health or health inequities was notably absent. Strategies to address the market failures of the food and beverage industry ranged from developing partnerships and support for voluntary self-regulation, through to imposed regulations if attempts at self-regulation failed. Support for tougher regulations was particularly focused on the area of marketing and advertising ‘junk’ foods during children’s television shows. Support for greater government regulation of markets was consistent with the social liberalism ideology [611] of the Labour Government, and Prime Minister Kevin Rudd’s criticism of an extreme
neoliberal agenda which opposes government intervention in markets [594]. The inclusion of market responsibility was consistent with the ‘health frame’ identified in US obesity discourse [407], the ‘public health frame’ identified in New Zealand obesity discourse [606], and the sociocultural frame identified as the dominant obesity discourse in France [457].

The textual practice of ideological squaring was evident whereby alternative ideological positions related to the responsibility of markets and specific industries, and in particular the food and beverage and advertising industries were presented. However these positions were provided relatively minimal page space in the documents. The National Preventative Health Strategy Roadmap noted that the food industry had opposed regulation of food marketing to children in the past. The restaurant industry’s opposition to regulatory measures that point of sale menu labelling (i.e. where menu boards contain nutritional and energy content information) was also noted. Of all the documents analysed, Weighing it up provided the greatest coverage of the views on regulation of various actors in the marketplace. For example:

The advertising industry argues that there is no evidence that advertising affects children’s eating habits in a significant adverse manner, adding that the Australian Communications and Media Authority (ACMA) has been unable to find a link between obesity and television advertising. The industry is critical of restrictions that prevent the advertising of healthy food products (Weighing it up p. 75).

The advertising and food industries also argue that there are codes of practice in place which form part of the industry’s self-regulation, and therefore government regulation is not required. However, Ms Carnell from the Australian Food and Grocery Council (AFGC) acknowledged if self-regulation failed then the government could impose stronger regulations. She stated that:

... if we did not deliver, then we would expect what we got, which would probably be a significant amount of public criticism but also government having a look at other options [for regulating advertising] (Weighing it up p.75)

Submissions to the inquiry from industry groups, including Free TV Australia and the Australian Association of National Advertisers (AANA) reject calls for greater governmental regulation and
state that the link between obesity and television viewing has not been scientifically proven. Advertisers add that there are already regulations, in the form of codes of practice, which apply to advertising (Weighing it up p. 95).

These views reflect the neoliberal ideology of minimal government regulation and were consistent with the ‘industry frame’ [606], ‘choice and responsibility frame’ [407], and ‘individual choice frame’ [457] identified by scholars elsewhere. It is interesting to note that the sole concession to the possibility of further regulation came from Ms Carnell from the Australian Food and Grocery Council. Ms Carnell is a former Chief Minister of the Australian Capital Territory and in that role was a member of the National Preventative Health Taskforce. As Chief Minister she was the head government regulator. She therefore had significant experience in the processes directly related to her submission, which may explain her more conciliatory attitude to regulation, though in Government she represented the Liberal Party, which traditionally has more alignment with neoliberal ideology.

Within the market responsibility discourse, there was a minor development of a discourse in which people were framed as consumers by the textual practice of word connotations. This was particularly prevalent in discussions around people as consumers of food products; however this repositioning of people as consumers more generally also appeared in a small number of other places within the documents. For example, the information card for General Practitioners about the Swap It, Don’t Stop It social marketing campaign referred to people as consumers in the absence of any consumer-related context.

The Swap It, Don’t Stop It campaign builds on the awareness created by the first phase of the Measure Up campaign and will work to show people how they can make small lifestyle changes to improve their health and reduce their waistline. It aims to continue to build consumers’ self-efficacy by conveying personally relevant, simple steps that they can take to improve their health and well being. (Swap It, Don’t Stop It GP Detailing Card)

The repositioning of people as consumers was consistent with what Porter identified as a shift in discourse from the Ottawa Charter to the Bangkok Charter, in which health
promotion moved from a ‘new social movement’ discourse to a ‘new capitalist movement’ discourse, and a people were recast from ‘community members’ to ‘consumers’ [45]. Although only a minor discourse, this was another indication of the presence of the neoliberal political ideology whereby capitalism and free markets are privileged over Government and social action, and people are framed as consumers rather than citizens.

**Summary**

This section has described and discussed the extent to which the health promotion values and principles focused on worldview related to responsibility were evident in the documents. The boundary critique identified the presence of two competing discourses on responsibility: the individual responsibility discourse consistent with aspects of neoliberal political ideology, and the collective (including individual and market) responsibility discourse consistent with social liberal political ideology. Despite the collective responsibility discourse being quantitatively dominant – with specific sections of the documents dedicated to a broad range of causes and solutions to the issue of obesity, including the market – the individual responsibility discourse was qualitatively dominant thanks largely to the strength of the modal words used to describe ultimate responsibility. Reflective practice using the health promotion values and principles continuum led to the conclusion that the fundamental assumption in the documents was that the individual is a machine with ultimate responsibility for controlling how to feed and move that machine. I therefore determined that the mechanistic worldview related to responsibility was valued more highly than the present but subordinated organic worldview, and that the weight-centred public health initiatives were therefore somewhat consistent with traditional health promotion.

### 7.1.2 Epistemology

**Description**

The focus of these values and principles is on the epistemology used in the weight-related public health initiatives. Epistemology refers to how an issue is constructed and
understood, what is deemed to be current knowledge and the way that knowledge is presented. The health promotion values and principles continuum identifies a constructivist epistemology as consistent with modern health promotion. This epistemological position holds that knowledge is constructed with and by people, including those most affected by the health issue. Uncertainty about the issue is acknowledged, and different views are recognised as different and valid constructions of knowledge. At the other end of the continuum, objectivist epistemology holds that there is only one definitive truth about the issue, and knowledge about that truth is thought to be uncovered or presented by objective observers. Truth is represented as evidence, and alternative views are either dismissed or not acknowledged. This epistemological position is identified on the continuum as consistent with traditional health promotion.

7.1.2.1 Construction of the issue

Result and discussion

Through the analysis I identified the dominance of the ‘objectivist’ discourse related to the epistemological in the construction of the issue.

Claims about obesity were presented as definitive using the discursive practice of drawing on experts, science, evidence and research for authoritative claims-making. The textual practice of using honourifics reinforced the expert status of those contributing to the constructing the issue.

These authoritative sources were used to justify a number of central claims about the current state of obesity and its causes which were presented as undisputed facts: obesity rates in Australia are ‘epidemic’ and continuing to rise; Australia is now one of the fattest countries in the world/the developed world/the OECD; the distribution of obesity within the population is varied, and is closely associated with socio-economic status; there are significant economic, social and personal costs associated with obesity; and obesity is caused by an energy imbalance. For example:
One of the greatest public health challenges confronting Australia and many other industrialised countries is the obesity epidemic. Australia is one of the most overweight developed nations, with over 60% of adults and one in four children overweight or obese. The prevalence of overweight and obesity has been steadily increasing over the last 30 years. Obesity is particularly prevalent among men and women in the most disadvantaged socioeconomic groups, people without post-school qualifications, Indigenous Australians and among many people born overseas (Obesity Technical Report p. 1).

This inquiry into obesity in the Australian population, focusing on future implications for Australia’s health system, has revealed that there are high personal and economic costs associated with this increasing prevalence. The Committee has heard there is a vast array of direct and indirect costs to - not just the health system - but individuals, families, communities, and employers (Weighing it up p. vii).

Obesity is caused by an imbalance in energy intake (from diet) and expenditure (from activity). ... a small, seemingly insignificant energy imbalance results in weight gain over time... To correct the energy imbalance, individuals need to develop a healthy lifestyle by making changes to correct their dietary habits and increase their activity levels (Weighing it up p. 119-120).

Consistent with objectivism, these claims about obesity were presented as solid, incontestable and indeed uncontested facts. The genre of the text used in the sections of the documents describing these ‘facts’ was predominantly scientifically formal, a textual practice that also contributed to the discursive practice of reinforcing the authority of the claims being made. This was consistent with what Sykes et al. refer to as scientific discourse [614].

Although the scientific discourse was dominant, the documents were interspersed with a range of less scientific terms. The textual practice of mixing formal and informal genres can be used to infuse official discourse with a populist voice, and simulate equalisation where the text producer appears to be on an equal footing with the reader [572]. One example involved the use of the textual practice of synecdoche to frame ‘our growing waistlines’ (Weighing it up p. viii) as representing increasing rates of obesity.
Through the textual practice of suppression, there was an almost complete absence of acknowledgement of any uncertainty or alternative views about the nature or substance of the obesity claims made. The objectivist, uncontested discourse with respect to the construction and causes of the issue was dominant throughout all of the documents.

Although this discourse was present in Weighing it up, social practice analysis revealed some instability in the discourse evident in that document. Here the term ‘debate’ was used multiple times, resulting in a general characterisation of the issue as an ‘obesity debate’. For example:

> The Committee hopes that our report ... takes the debate forward (Weighing it up p. viii).

> Our public hearings have been a forum for members of the community – experts and citizens alike – to meet with Members of Parliament to discuss their knowledge and experiences in the context of taking the debate(s) forward where possible (Weighing it up p. 8).

> The Committee has been keen to foster national debate on the issues of overweight and obesity across the country (Weighing it up p. 8).

Despite Weighing it up including numerous references to an ‘obesity debate’ or ‘debates’, the nature of these debates with respect to the construction of the issue or the causes was not elaborated. The lack of substance to the debate meant that the objectivist discourse remained dominant, consistent with all other documents analysed. The sole exception was the acknowledgement of an alternative perspective in a submission to the Obesity Inquiry.

Associate Professor O’Dea a dietician and researcher from the University of Sydney who has studied body image and eating disorders in children and adolescents, voiced her concerns to the Committee regarding the treatment of childhood obesity. In her submission to the Committee she detailed the difficulties of defining obesity in children (and) cautioned against exaggerating the extent of the problem in Australian children (Weighing it up p. 131).
No comment was made about the submission by O’Dea, so it is not possible to know if there were specific criticisms of her view, as Saguy and Riley found in their examination of the views of obesity proponents about obesity sceptics [425], or if her view was simply noted as interesting and taken no further. Either way, the almost universal **lexical absence** of alternative perspectives evident in the documents was perhaps more consistent with Gard’s assertion that most proponents of the weight-centred health paradigm are not even aware of opposition to the paradigm [424]. The representation of the construction of the issue of obesity as definitive and without doubt was consistent with a great deal of obesity literature including the large number of authoritative sources cited in the documents. This aspect of obesity discourse has, in turn, been the subject of scholarly critique by obesity proponents and sceptics alike [425, 475, 615-617]. In a study of the discourse of weight-related initiatives in British Columbia, Canada [618], O’Reilly and Sixsmith identified that:

...where scientific studies were cited, tracing the original source of the assertion revealed that nine out of ten times claims about the consequences of fatness originated from quantitative studies in which one or more variables of diet, fitness, or SES was not controlled for. The lack of rigor in the measurement and evaluation of such confounding variables, which are known to affect the relationship between weight and health, raises concern about personal and professional accountability and ethical research standards (p. 102).

**Summary**

This section has described and discussed extent to which the health promotion values and principles focused on the epistemological construction of the issue were evident in the documents. Through **boundary critique** I identified a range of assumptions presented as facts: obesity rates in Australia are ‘epidemic’ and continuing to rise; Australia is now one of the fattest countries in the world/the developed world/the OECD; the distribution of obesity within the population is varied, and is closely associated with socio-economic status; there are significant economic, social and personal costs associated with obesity; and obesity is caused by an energy imbalance. Through **reflective practice** using the health promotion values and principles continuum as a critical questioning tool, I determined that the **objectivist**
epistemological position on the construction of the issue was dominant, and that the weight-related public health initiatives were therefore strongly consistent with traditional health promotion.

7.1.2.2 Construction of solutions to the issue

Result and discussion

When the documents turned to proposing public health solutions to address the issue, with the exception of the social marketing campaigns, a somewhat more constructivist epistemology was evident. Three factors contributed to this assessment: the level of certainty of the discourse diminished substantially; input from a broad range of people and sectors in the community was invited; and alternative views were presented in the reports. However these were counter-balanced by the strong emphasis on increasing surveillance, monitoring and evaluation, using quantitative methods consistent with objectivist epistemology.

In proposing solutions to the issue, there was a strong reliance on the discursive practice of using experts and scientific sources for authoritative claims-making. However the discursive practices of hedging through the use of lower modality verbs was also evident; rather than evidence showing or demonstrating, evidence suggested or was still developing, there were gaps in the evidence ‘jigsaw’, and further debate, research, evaluation and evidence were required. In particular, there was recognition of uncertainty of the effect of the proposed strategies, and as such the documents called for more surveillance, monitoring, evaluation and ‘learning by doing’. For example:

...there is much evidence about the effectiveness of interventions that is yet to be gathered (Obesity Technical Report p. 51).

The Taskforce recognised that in proposing measures to tackle obesity, the evidence for intervention was more variable than in other public health issues such as tobacco control. Therefore, there is a strong emphasis on “learning by doing” – taking promising approaches, and closely monitoring their results (Taking Preventative Action p. 34).
As highlighted in the documents, the evidence of effectiveness of obesity prevention initiatives is variable and inconclusive. This is well recognised in field where there is significant debate with respect to the quality of the evidence-base for obesity prevention initiatives [37, 542]. More generally in the field of health promotion, there is also considerable debate about what constitutes evidence and how best to ethically capture or assess such evidence [619] [40, 620] [50] [546]. Writing with specific reference to obesity prevention initiatives, Hann and Peckham warn that:

If medicine is to be 'evidence based', then public health practitioners need to be more rigorous that what becomes the accepted wisdom is indeed 'evidence' and not simply an irresistible force based on assumption as well as on moral and ideological beliefs [621] p. 130).

The response in the documents analysed to the limited evidence base was to propose significant investment and expansion of population health surveillance, and monitoring and evaluation of obesity prevention initiatives in order to determine their impact and ‘learn by doing’.

The second factor that contributed to the identification of a somewhat constructivist epistemology was the process of inviting input from a broad range of people and sectors of the community. Weighing it up reported that the House of Representative Obesity Inquiry held 16 public hearings, and received 158 submissions and 97 exhibits from across the country. The Roadmap reported that the National Preventative Health Taskforce received over 400 written submissions and held 37 invitation only consultations. The results of such public input were claimed to have been included in the documents, though the evidence for this claim was much stronger in Weighing it up, which included extensive excerpts from written and verbal submissions.

Participation of people impacted by the health issue in initiatives designed to address the issue is considered a fundamental value of modern health promotion [30, 622]. This value will be explored in more detail in the section below on participation in the change process.
The inclusion of public input to the solutions proposed in the documents led to the third factor that suggested a constructivist epistemology: using the textual practice of ideological squaring there was some acknowledgement of different views in the construction of solutions to the obesity issue. For example:

In this discussion paper the Taskforce identifies a wide range of options, some of them contentious that it considers would have a positive impact in preventing illness (Discussion paper p. ii).

While the vast majority of submissions and contributions supported the approaches taken in the Discussion paper, often seeking further and more urgent action, there were also some that disagreed or offered alternative perspectives. ... In developing the Strategy, the Taskforce was aware that across all the issues considered there are a wide range of views, and that there will be some differing interpretations and perspectives (Roadmap p. 5).

The different views that were the source of contention were primarily those of the food and beverage and advertising industries. As noted in the section above on responsibility, these industries reflected the neoliberal free market ideology with respect to industry regulation. These views were acknowledged and considered in the development of the National Preventative Health Strategy:

The Taskforce has taken account of these (wide range of views) in developing the Strategy. ... (and) reached its conclusions on the basis of careful consideration of the evidence and of all the views expressed to it (Roadmap p. 5)

Weighing it up also noted that there was an opportunity for ‘consumers’ to become more involved in ‘debate’ with the food industry:

The Committee wonders too about the potential for consumers to be more vociferous about what they want and do not want in other manufactured food products. A couple of recent examples in the media suggest areas ripe for debate and dialogue between consumers and food manufacturers and suppliers (Weighing it up p. 99).
The subject matter suggests scope for a wider debate that perhaps Australian consumers need to have with food manufacturers and suppliers about the ingredients of the everyday products that they are purchasing (*Weighing it up* p. 99).

In response particularly to the lack of certainty and under-developed evidence base for solutions to the issue, there was a strong emphasis on increasing surveillance, monitoring and evaluation, using quantitative methods more consistent with objectivist epistemology. Population level surveillance is considered an essential or core public health function [623, 624], and like population screening, raises important philosophical, ethical and technical issues. However population level health surveillance is not a health promotion strategy and was therefore determined to be outside the scope of this study. Monitoring and evaluation of obesity prevention initiatives will be discussed further in the section below on evaluation.

The use of the **textual practice** of **metaphor** for the title *Weighing it up* represented both the recognition of uncertainty and the input and acknowledgement of different perspectives evident in this and the *Healthiest Country* documents. This somewhat **constructivist epistemological** discourse on the solutions to the obesity issue was significantly different to the objectivist epistemological or scientific discourse [614] that was identified as the dominant discourse in discussion on the current state of the obesity issue.

**Summary**

This section has described and discussed the extent to which the health promotion values and principles focused on the epistemological construction of solutions to the issue of obesity were evident in the documents. Through **boundary critique** I identified that there was a significant degree of uncertainty acknowledged in the discourse about the solutions; input from a broad range of people and sectors in the community was invited; and alternative views were presented in the reports. However these factors were counter-balanced by the strong emphasis on increasing surveillance, monitoring and evaluation, using quantitative methods consistent with objectivist epistemology. Through **reflective practice** using the health promotion values and principles
continuum as a critical questioning tool, I determined that the constructivist epistemological position on the construction of solutions to the issue was moderately dominant, and that the weight-related public health initiatives were therefore somewhat consistent with modern health promotion.

### 7.1.3 Health paradigm

**Description**

The focus of these values and principles is on the health paradigm used to define the health issue being addressed in the weight-related public health initiatives. The health promotion values and principles continuum identifies the holistic health paradigm as consistent with modern health promotion, and the biomedical health paradigm as consistent with traditional health promotion. Holistic health is a complex concept that includes aspects of mental, physical, social and spiritual wellbeing of the whole person, within the context of their natural, built, social, economic and political environments. The biomedical health paradigm frames health as an absence of physical disease or disease risk factor, and generally excludes other aspects of health such as mental health, social health or spiritual health. The person is treated in isolation from their environment.

**Result and discussion**

Through the analysis I identified the strong presence of the ‘biomedical health’ discourse.

As the name clearly states, the weight-centred health paradigm places body weight firmly in the centre of discussions about health. The analysis of documents in this study revealed that body weight issue was referred to primarily as ‘obesity’ and occasionally as ‘overweight and obesity’, and the rationale for addressing obesity was to reduce rates of chronic disease. This was consistent with the biomedical health paradigm, in which health is defined as the absence of a physical disease or risk factor for that disease [34, 57]. In the documents analysed, health (or lack thereof) was defined according to Body Mass Index (BMI) category or waist circumference, and
categorisation as ‘obese’ was determined to be a risk (or even causal) factor for the development of chronic diseases. For example:

The most recent estimates of the impact of obesity in Australia show that obesity causes almost one-quarter of type 2 diabetes (23.8%) and osteoarthritis (24.5%), and around one-fifth of cardiovascular disease (21.3%) and colorectal, breast, uterine and kidney cancer (20.5%) (Obesity Technical Report p. 5).

Waist circumference was the primary focus of the social marketing campaigns Measure Up and Swap It, Don’t Stop It. The textual practice of synecdoche, or using a part of a subject to represent the whole of the subject (or vice versa), can be used to reinforce or lend authority to a concept or belief, particularly with respect to the relationship between the part and the whole. It can also be used to normalise a concept and thus ensure it is seen as part of accepted or normative positioning. This is evident in the use of increasing waist circumference as a synecdochal strategy to describe the purpose of the Weighing it up report. Here the colloquial ‘growing waistlines’ represents ‘obesity’. For example:

Our report … make(s) general recommendations on what governments, industry, individuals and the broader community can do to reverse our growing waistlines.’ (Italics added) (Weighing it up p. viii).

Epistemic modality verbs were used as a discursive practice to discuss the certainty or probability of the relationship between obesity and chronic disease. Consistent with the literature regarding this relationship as reviewed in Chapter 3, the strength of the epistemic modality verbs was generally moderate, with terms such as ‘linked’, ‘associated’, ‘connected’, ‘related’ and ‘contributes to’ most commonly used to describe the relationship. The use of such verbs may have suggested recognition of uncertainty or at least lack of causality in the relationship. However this lowered modality was counterbalanced by the use of verbs with higher epistemic modality such as ‘causes’, ‘leads to’, and ‘is responsible for’. Often both lower and higher epistemic modality verbs were used in the same section of text. However, rather than reduce the
certainty or definitiveness of the statements, the lower modality verbs were
overpowered by the authoritative tone of the higher epistemic modality verbs. For
example:

The problem is of enormous health, social and economic concern because overweight and
obesity cause a wide range of debilitating and life-threatening conditions such as cardiovascular
disease, Type 2 diabetes, stroke, cancers, osteoarthritis, kidney and gall bladder disease, and
respiratory and musculoskeletal problems. In addition, obesity can destroy self-esteem, lead to
social discrimination and contribute towards mental illness (Italics added) (Healthy Weight p. 2).

Obesity is linked to many chronic diseases that can have a devastating impact on individuals,
families and communities. Recent estimates show that obesity causes almost one-quarter of
cases of type 2 diabetes (23.8%) and osteoarthritis (24.5%), and around one-fifth of
cardiovascular disease (21.3%) and colorectal, breast, uterine and kidney cancer (20.5%). In
2003 high body mass was responsible for 7.5% of the total burden of disease and injury in
Australia, ranked behind only tobacco (7.8%) and high blood pressure (7.6%) (Italics added)
(Roadmap p. 88).

The other type is intra-abdominal fat. This is the fat that coats our organs and causes the most
concern. Even though we don’t yet fully understand what links intra-abdominal fat with chronic
disease, we do know that even a small deposit of this fat increases the risk of serious health
problems’ (Italics added) (Swap It, Don’t Stop It website).

Thus the prevailing impression from the documents was that there is an objective,
definitive, without doubt, CAUSAL relationship between obesity and a range of chronic
diseases. The obesity-chronic disease discourse was reified through the discursive
practice of claims-making, whereby statements related to the problem of obesity and
its relationship with chronic disease were attributed to authoritative experts or expert
organisations. The textual practice of presupposition was evident with the implied
causal relationship between obesity and chronic disease being taken for granted and
uncontested.

A related, less disease but not quite health oriented ‘healthy weight’ discourse was
also evident across the documents. This discourse was strongest in Healthy Weight
2008 – a five year plan published in 2003 and therefore the earliest document included in the analysis – and appeared sporadically throughout most of the documents analysed. Despite its initial strength, the healthy weight discourse was relegated to minority status by the hegemonic obesity-chronic disease discourse present in the remainder of the documents produced over the subsequent decade.

Through the textual practice of lexical absence, there was an almost complete absence of alternative views about health paradigm. The sole exception appeared in the Weighing it up report, which quoted a submission to the inquiry:

Associate Professor O’Dea … advocates a more positive approach, including the use of positive language emphasising healthy growth and development and asked the Committee to remember that a healthy child is physically healthy, mentally healthy, socially healthy, culturally healthy, spiritually healthy (Weighing it up p. 131-132).

Although the textual practice of using honourifics identified the view as that of an expert of high status, this position, which was more consistent with the holistic health paradigm, was not incorporated into the recommendations from the inquiry, and so was effectively silenced by the textual practice of suppression. As with other comments from the same submission discussed in the section on epistemology, there was no further reference to this perspective in the report.

Adoption of the holistic health paradigm is one of the primary values of modern health promotion espoused from the Ottawa Charter for Health Promotion onwards [56, 609] and reiterated in the Galway Consensus Statement on domains of core competency, standards and quality assurance for building global capacity in health promotion [44, 610]. Health promotion practitioners strongly value the holistic health paradigm, both in terms of the whole person (mental, physical, spiritual, social), and their embeddedness and interconnection with multiple layers of social, economic and environmental conditions that influence their health and wellbeing [32, 610]. In calling for a more holistic paradigm, Buchanan [48] calls for attention to broader behaviours than those traditionally addressed in biomedical health promotion programs:
Frankly, I cannot wait for the time when public health recommends that each and every one of us spend 30 to 45 minutes a day, 4 or more days per week, working for social justice, for which a much better case can be made (p. 302).

Despite the central value of the holistic health paradigm for practitioners and in seminal charters and declarations, health promotion has been widely criticised for the continued dominance of the biomedical health paradigm [34, 48, 599, 625]. Such dominance was also evident in this analysis.

Summary
This section has described and discussed the extent to which the health promotion values and principles focused on the health paradigm were evident in the documents. Through boundary critique I identified the assumptions in the documents that health can be defined as the absence of obesity, and absence of obesity is required to prevent chronic diseases. Through reflective practice using the health promotion values and principles continuum as a critical questioning tool, I determined that the biomedical health paradigm was overwhelmingly dominant, and that the weight-centred public health initiatives were therefore strongly consistent with traditional health promotion.

7.1.4 Scientific approach
Description
These values and principles are focused on the scientific approach used to explore and explain the causes of the issue being addressed in the weight-related public health initiatives. The health promotion values and principles continuum identifies an ecological scientific approach as consistent with modern health promotion, and a reductionist scientific approach as consistent with traditional health promotion. Ecological science proposes that people exist within multiple ecosystems, from the individual level, to the family, group, community, population and global level. This scientific approach recognises that each of these levels acts as a system, and that all
parts of the system are connected. The ecological approach to understanding health involves understanding the broad range of factors that impact on health within multiple ecosystems. Reductionist science reduces people and their health to individual, unrelated component parts. The causes of illness or disease can be identified and addressed separately.

As discussed in the previous section, the biomedical health paradigm was used to frame the issue as ‘obesity’, and this section focused on the discourses used to describe the determinants or causes of ‘obesity’. Within the discourses about the causes of obesity, a subset of discourse about the social determinants of health was identified. As this is a recognised concept in public health terms, this discourse will be examined first, followed by discourse about the determinants of obesity more specifically.

7.1.4.1 Social determinants of health

Result and discussion
Through the analysis I identified a mix of ‘social determinants of health’ discourses focusing on different aspects of health determinants. For example:

Our health is not only determined by our physical and psychological make-up and health behaviours, but also by our education, income and employment; our access to services; the place in which we live in and its culture; the advertising we are exposed to; and the laws and other regulations in place in our society (Discussion paper p. viii).

Throughout the Healthiest Country documents, significant attention was paid to the social determinants of health and their role in equity and equality. Through the textual practice of lexical absence, there was little to no reference to these concepts in any of the other documents. Weighing it up included one reference to the connection between lower socioeconomic status and obesity, citing a submission that highlighted the existence of social determinants for a range of diseases. There were no references to these concepts in Healthy Weight, Weighing it up Government response or the social marketing campaigns.
Despite the lexical prevalence of the term ‘social determinants of health’ in the *Healthiest Country* documents, social practice analysis identified instability in the discourse. The relative amount of attention actually paid to the social determinants of health and the nature of the discourse about the concept varied considerably both within and across the documents. In the *Obesity Technical Report*, discussion on the social determinants of health comprised one subsection within section 3: What is required to address the problem. There was no reference to the reduction of health inequity as the purpose of addressing the social determinants of health. The single paragraph subsection began with the prescription that health systems should be equitable and accessible, that primary health care needs to be strengthened, and there should be funding for prevention and health promotion as well as treatment. One sentence referred to the requirement to address economic inequality, and another referred to the need for health in all policies and government leadership to balance public and private sector interests. Given the use of the discursive practice of hedging around these last requirements, where the lack of specifics created strategic ambiguity or vagueness of the claims, the primary focus of this subsection was clearly on the healthcare system.

This represented an extremely limited interpretation of the social determinants of health, as proposed by the WHO Commission on the Social Determinants of Health and their implications for health promotion [63]. In his analysis of discourses related to the social determinants of health in Canada, Raphael identified seven increasingly complex discourses that had emerged in recent years. All discourses used the language of the social determinants of health to describe the distribution of health status, but they varied in their implications for policy action [626]. The discourse of the social determinants of health evident in the *Obesity Technical Report* was consistent with that identified by Raphael as Discourse 1: Social determinants of health as identifying those in need of health and social services. In this discourse the health and social service needs of individuals are identified and delivered. By focusing predominantly on healthcare services as the policy response to the social determinants of health, the *Obesity Technical Report* adopted what could be termed a ‘social determinants of
health lite’ discourse, less complex even than the most basic discourse identified by Raphael.

Using Raphael’s classification of discourses, the levels of discourse on the social determinants of health in the *Healthiest Country Discussion paper, Strategy Roadmap* and *Overview* documents were similar to and exceeded those in the *Obesity Technical Report*. In all three documents discussion about the social determinants of health was presented in the section on inequities in health. In introducing this issue, the WHO Commission on the Social Determinants of Health (CSDH) was cited, and the three overarching recommendations from the CSDH to ‘tackle the corrosive effects of inequality on life chances were listed. In the *Discussion paper*, this was followed by the statements that ‘Australian governments at all levels have a role in funding and supporting programs in communities, schools and workplaces’ and ‘investments have to (ensure that) … underserved communities receive the support and resources they need’ (*Discussion paper* p. ix). The discursive practice of hedging was evident in the relative vagueness of these statements (with respect to their relationship to the social determinants of health), which made the discourse difficult to classify, but ultimately it was assessed as being closest to Raphael’s Discourse 4: Social determinants of health as indicating material living circumstances that differ as a function of group members. The practical implications of this discourse are the provision of evidence of systematic differences in life experiences among citizen groups and addressing the disadvantaged groups directly.

In the *Roadmap* the reference to the WHO Commission on the Social Determinants of Health was followed by five subsections: social determinants of health, the health gap, social gradient, social determinants of obesity, and structural determinants of health. The first section referred to the requirement for social conditions to empower people to choose to eat healthy food and be physically active, and to make the healthy choice more physically, financially and socially the easier and more desirable choice than the less healthy option. This section reflected Raphael’s Discourse 2: Social determinants of health as identifying those with modifiable medical and behavioural risk factors. The
practical implication of this discourse is a focus on health behaviours, which is evident throughout all documents analysed in this study.

However the section then identified that the harmful consequences of poor health behaviours and the ‘inequity in their social distribution, are the result of both market failure and failure by government to protect the health of all its citizens’ (Roadmap p. 59). This discourse was more consistent with Raphael’s Discourse 5: Social determinants of health and their distribution as results of public policy decisions made by governments and other societal institutions. Whilst the Roadmap did not name specific policy decisions, it nonetheless accredited the prevalence of unhealthy behaviours and their inequitable distribution to government and market (policy) failure. The practical implication of this discourse is that attention is directed to the development of healthy public policy to reduce health inequities. According to Raphael, this discourse is the one most closely aligned with the conclusions of the WHO Commission on the Social Determinants of Health.

The following section on the health gap described the differential prevalence of behaviour and disease according to socioeconomic status. Again Discourse 4 was at play here, highlighting differences in health status according to group membership.

The third section on the social gradient highlighted that health status follows a social gradient and is not a simply dichotomy between the rich and poor. Rather than reducing inequity however, the social gradient was used to justify a whole of population approach, although the language chosen for this justification seemed to suggest that poverty, exclusion and other social conditions be supported rather than addressed:

Understanding health inequity in terms of the social gradient in health allows us to embrace not only conditions of poverty and exclusion but social conditions that affect everyone. In doing so, policies and programs will have greater potential to reach a wider population, thereby improving the health of more people (Italics added) (Roadmap p.60).
This section was more initially more consistent with Discourse 4, which focuses on differences in health status according to membership of various demographic categories, but the final paragraph focusing on the whole population removed it from social determinants of health discourse entirely.

The fourth section on the social determinants of obesity saw a return to Discourse 4, in which a range of social conditions that are unequally distributed within the community and contribute to the differential distribution of obesity were cited, for example access to and quality of education, transport options, degree of social protection. Culture was cited as a social determinant of health, particularly for Indigenous people. This section is representative of a general reworking throughout the *Healthiest Country* document of the social determinants of health agenda into an agenda more focused on the social distribution of body weight and behaviours.

The fifth section on the structural determinants of power, money and resources highlighted that:

> Promoting health equity through healthy weight ... also means tackling some of the fundamental political, economic and cultural issues that affect people’s living conditions, their daily practices and behaviour-related risks (*Roadmap* p. 61).

The implications of this requirement are described as:

> Dealing with matters of governance; national economic priorities; trade arrangements; market deregulation and foreign direct investment; fiscal policy; and the degree to which policies, systems and processes are inclusionary (*Roadmap* p. 60).

As with the previous reference to market and government failure, this discourse reflected Raphael’s Discourse 5 in which the social determinants of health and their distribution are the result of public policy decisions made by governments and other societal institutions. This section was more explicit however in naming specific policy areas to which attention must be paid in order to reduce health inequity.
Multiple discourses were also evident in the following section on Strategic Focus 6 which focused on closing the gap in health status between Indigenous and non-Indigenous Australians. The differential distribution of health related behaviours, health status, material living conditions, social circumstances, and historical and political contexts between Indigenous and non-Indigenous Australians were all described in some detail. These reflected Raphael’s discourses 2, 3, 4 and 5. However in the section headed ‘How can prevention help ‘Close the Gap’?’, the answer privileged the role of primary health care services above other services and sectors, and as a result brought the social determinants of health discourse back down to Raphael’s discourse 1:

Primary healthcare has come to be recognised by policy makers, health professionals and the Indigenous community as the key strategy for improving the health of Indigenous Australians. To the extent that there have been health improvements, these have been credited to improved primary healthcare. Even where measurable improvements are limited (for example, in chronic disease mortality rates), the conclusion has been drawn that while the social determinants continue to drive high levels of ill health, improved primary healthcare services are at least providing a brake on what would otherwise be accelerating mortality rates (Italics added) (Roadmap p. 63).

Perhaps not surprising, this was also reflected in the following section on Strategic Focus 7: Refocus primary health care towards prevention. The primary health care setting was not only regarded as ‘one of the most important sectors of the health system for prevention’ (Italics added Roadmap p. 64), but:

Primary healthcare reform is the single most important strategy for improving our health (Italics added) (Roadmap p. 64).

Taking Preventative Action, the Government response to the National Preventative Health Strategy, was primarily focused on responding to the specific recommended actions presented in the National Preventative Health Strategy implementation plan for obesity. As few of the actions in the implementation plan included the term social determinants of health, there were relatively few references to this concept in the
Government’s response. Where they did occur, they were consistent with discourse 2 (in the context of discussion about risk factors for men’s health), and discourse 4 (in the context of discussion about services to address social exclusion of disadvantaged groups, and discussion about the social determinants of obesity for Indigenous people).

In summary, there was a significant presence of rhetoric about addressing the social determinants of health to reduce inequity but social practice analysis revealed significant instability in the discourse. This rhetoric spanned discourses 1 to 5 from Raphael’s classification of discourses on the social determinants of health. The discourses included a focus on health systems, health behaviours, material living conditions, differential distribution of health status and behaviours according to group membership, and the impact of public policy decisions by governments and other societal institutions. The textual practice of overlexicalisation, whereby the terms ‘social determinants of health’ and ‘inequity’ were used repeatedly throughout the Healthiest Country documents, served to persuade the reader that the documents were indeed responsive to the call from the WHO Commission on the Social Determinants of Health for ‘all nations to develop and implement public policies, private sector responsibility and social action that puts health equity at a central societal goal’ (Roadmap p. 58). However the social determinants of health discourses evident in the documents did not always reflect the discourse most consistent with that of the Commission, which is related to the social determinants of health and their distribution as a function of public policy decisions made by governments and other societal institutions. The more common discourses on the social determinants of health were discourses 1, 2 and 4, focusing on health systems, health behaviours, and the differential distribution of health status and behaviours according to group membership.

Consistent with the overarching presence of an objectivist epistemology or what Sykes et al. refer to as scientific discourse [614], the discursive practice of claims-making was used to present the information and discussion about the social determinants of
health as scientific, definitive and without doubt, and backed up by quantitative data from scientific sources. The textual practice of lexical absence resulted in the complete absence of alternative views or discussion on the issues presented.

Attention to the social determinants of health is regarded as essential if health inequity is to be reduced in any meaningful way [30, 33, 622]. However numerous discourses have emerged based on varying interpretations of the concept of social determinants of health, and the practical implications for these different discourses have been highlighted [626]. Raphael [599] noted that in Canada at least, the social determinants of health discourse is evident in public health documents, but the level of discourse is generally very low. For example:

Perusal of any public health document or disease agency publication gives lip service to the broader determinants of health but quickly succumbs to exhortations about making healthy choices in the service of health (Raphael p. 488).

This was consistent with the nature of the discourse evident in this analysis. Baum has argued that the discourse used by the Commission on the Social Determinants of Health reinforces the ‘move that health promotion has been making since the 1980s to be less concerned with behaviour change and more concerned with creating the conditions in which health and well-being flourish’ [63] (p. 457). She further asserts that using the Commission’s report to continue and enhance this move will enable health promotion to ‘reinvent’ itself for the 21st century. Adopting the social determinants of health discourse identified in the documents analysed for this study will do little to contribute to such a reinvention.

Summary
This section has described and discussed the extent to which the health promotion values and principles focused on the scientific approach to the social determinants of health were evident in the documents. Through boundary critique I identified that there was a mix of social determinants of health discourses focusing on health systems, health behaviours, and the differential distribution of health status and
behaviours according to group membership. Through reflective practice using the health promotion values and principles continuum as a critical questioning tool, I determined that overall, there was a somewhat reductionist scientific approach to the social determinants of health, and that the weight-related public health initiatives were therefore somewhat consistent with traditional health promotion.

7.1.4.2 Determinants of body weight

Description
The previous section examined the discourse related to the social determinants of health, and in this section I focus on the discourse related more specifically to the determinants of body weight. Within this context, an ecological science discourse related to the determinants of body weight recognises that body weight is an outcome of a complex, inter-related, multidirectional set of known and unknown factors operating at all levels from the individual to the family, group, community, population and global level. A reductionist science discourse related to the determinants of body weight provides a listing of known factors that can be reduced to simplistic, mechanistic equation.

Result and discussion
Through the analysis I identified the presence of competing ‘ecological’ and ‘reductionist’ scientific discourses. For example:

Obesity is caused by an imbalance in energy intake (from diet) and expenditure (from activity). Individually we make the decisions as to how much we eat and how much activity we undertake. Evidence to the Committee indicated that a small, seemingly insignificant energy imbalance results in weight gain over time, implying that each of us can control our own weight by controlling what we eat and how much we exercise. To correct the energy imbalance, individuals need to develop a healthy lifestyle by making changes to correct their dietary habits and increase their activity levels (Weighing it up p. 119).

This extract from Weighing it up, expressed through the widespread use of the synecdochal trope that obesity is basically a simple energy imbalance, was
representative of the reductionist science discourse that dominated the documents. This particular quote from *Weighing it up* was an extreme example of the reductionism evident in the documents, but is used here to highlight the fundamental assertion about the determinants of body weight. Throughout most of the documents except for the social marketing campaigns, the determinants of body weight were either explicitly claimed or implicitly suggested to be biological, behavioural (eating too much or too much of the ‘wrong’ foods and not being active enough) and environmental (obesogenic environments that promote the behavioural determinants). Each of these categories will now be examined in greater detail.

**Biological determinants**

Biological determinants of body weight were included in *Healthy Weight* and *Weighing it up*, but there was a lexical absence of such determinants in the *Healthiest Country* documents. For example:

> There is no single cause of obesity and for some, obesity is due to genetic predisposition (*Healthy Weight* p. 2).

> Expert witnesses to the Committee advised that there are biological reasons why some people have difficulty controlling their weight. The Committee was provided with scientific evidence showing that this may occur for three reasons:

> - human evolution
> - some people carry a gene or genes that pre-dispose them to obesity; and
> - homeostatic regulation which can cause the body to maintain or increase its weight in response to changes in diet or activity levels (*Weighing it up* p. 121).

There were a very small number of minor exceptions to the absence of biology from the *Healthiest Country* documents. The *Discussion paper* included genetics as one of the components of individual physical and psychological makeup in a figure on the conceptual framework for determinants of health as they relate to obesity, tobacco and alcohol (p. 5). In the *Obesity Technical Report* addendum, reference was made to one study that suggested that ‘health-related behaviours, especially those concerning diet and physical activity, are likely to play a larger role than genetic factors in
determining the convergence of BMI levels within households’ (p. 71). In the Roadmap, genetics was included in a list of individual factors in a figure displaying ‘the influence of individual, social, lifestyle/behavioural and environmental factors on energy balance and BMI’ (p. 91). Biological factors were listed as one of the individual factors in another figure displaying the ‘conceptual framework of the social determinants of inequalities in obesity’ (p. 130). Genetics or biological factors were not referred to any other text in the Healthiest Country documents.

The almost complete absence of evidence about the influence of biological factors on body weight, most notably in the Obesity Technical Report, is noteworthy, and can only be interpreted as the textual practice of suppression. The literature on body weight includes a significant and growing number of studies that have examined the role of a wide variety of biological determinants of body weight. Some of these biological factors identified in the literature include:

- Weight cycling [272, 311, 312, 627, 628]
- Young children’s exposure to maternal smoking [225]
- Viral infection, particularly adenovirus 36 [207, 629]
- Helicobacter pylori infection [199, 630]
- Foetal epigenetic changes resulting from maternal undernutrition [223, 241] [631]
- Physiological stress reactions [232, 632]
- Composition of gut microbiota [195] [196, 197]
- Metabolic endotoxemia [191]
- Mutation in the human leptin receptor gene [633]
- Insulin resistance [154]
- Hyperinsulinaemia [155, 157]
- Inflammation [198, 634, 635]
- Sleep debt [228, 241, 636]
- Exposure to endocrine disrupting chemicals [189, 212, 214, 216-219, 222]
- Exposure to adipogenic pharmaceutical products [241]
- Biological response to reduction in variability in ambient temperature [241]
- Disruption in circadian pacemaker due to evolution in different latitudes [637]

Most of these factors have implications for public health (or preventative health as it is defined in the *Healthiest Country* documents), and so their absence cannot be explained by their lack of relevance to the stated purpose of the documents analysed. The conspicuous absence of a well-developed discussion about the range of biological factors that contribute to body weight is consistent with the neoliberal individual responsibility discourse, in which the individual is ultimately responsible for their behaviours and therefore their body weight. (This was examined in the section above on responsibility, and will be further examined in the section below on behavioural determinants of body weight.) Perhaps the inclusion of discussion of the role of biological factors in the documents would have only served to muddy this ideological position.

In Saguy’s study of news coverage related to the framing of causes and solutions for obesity, she identified that the ‘biological cause’ frame was the least common frame used by news media, compared to individual (behavioural) and sociocultural causes [457]. Even when biological causes were discussed in the sample news items, they were typically subordinated to behavioural causes, or dismissed as only being relevant 5% of the time. The results of this analysis were similar in both the US and France. Over the period from 1995 to 2005, reference to biological causes in the US media sample actually reduced. Conversely, Saguy identified that the biological (genetic) cause frame increased in use from 10% of articles in a science media sample in 1999 to 20% of articles in 2003 [457]. Nonetheless it was still the subordinated causal frame. Kwan and Graves identified that biological factors formed part of the ‘health frame’ of causes posited by the Centers for Disease Control and Prevention, but again these factors were subordinated to other individual causes (behaviours) and structural factors influencing individual behaviours [407]. Jenkin’s study of the framing of submissions to the New Zealand Obesity Inquiry noted that genetics were identified as non-causes in both the industry frame and the public health frame [607]. The results of
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these studies are consistent with the subordination of the biological determinants discourse in this study.

**Behavioural determinants**

Behavioral and indeed all other determinants of body weight were subordinated to the behavioral determinants discourse that was dominant in this study. As discussed above, the behaviors that were regarded as the fundamental determinants of obesity were unhealthy food consumption and inadequate physical activity. For example:

... over the past twenty years there has been both a decline in physical activity in children and an increase in unhealthy eating (*Healthy Weight* p. 2).

Interestingly, these factors were considered to be axiomatic and were not in fact presented as ‘determinants of body weight’, but nonetheless were clearly the determinants at the implicit or explicit epicentre of all discussions about obesity. For example, in *Taking Preventative Action*, there was a **lexical absence** of specific references to the determinants of body weight; rather the behaviors were grouped with obesity and overweight as risk factors. For example:

The burden associated with the cluster of associated risk factors (obesity and overweight, physical inactivity and poor diet) is projected to drive significant health and social costs into the future (p. 12).

In the *National Preventative Health Strategy Roadmap* implementation plan for obesity, the **textual practice** of presupposition framed the causes as part of the proposed solutions (or actions). The actions that specifically referenced behaviors included:

1. Drive environmental changes throughout the community to increase levels of physical activity and reduce sedentary behaviour
2. Drive change within the food supply to increase the availability and demand for healthier food products, and decrease the availability and demand for unhealthy food products
3. Embed physical activity and healthy eating in everyday life
4. Encourage people to improve their levels of physical activity and healthy eating through comprehensive and effective social marketing.

5. Strengthen, skill and support primary healthcare and public health workforce to support people in making healthy choices.

6. Alert and support pregnant women and those planning pregnancy to prevent lifestyle risks of excessive weight, poor nutrition, smoking and alcohol consumption.

7. Support low-income communities to improve their levels of physical activity and healthy eating (Roadmap p. 14-15).

The Tomorrow People (the Indigenous component of Measure Up) and Swap It, Don’t Stop It social marketing campaigns also used presupposition to focus on behavioural solutions, thereby implying behavioural causes. For example:

This booklet will explain how you can improve your health by making a few easy changes to your diet and by being more active in your daily life (Tomorrow People booklet p. 3).

Healthy eating and getting active can help you lose centimetres from your waistline and prevent or delay the onset of some chronic diseases (Swap It, Don’t Stop It brochure p. 1).

The Measure Up social marketing campaign however was more explicit about the behavioural causes of obesity. For example:

You know how it is—you settle down, put on a few kilos. ... Unhealthy eating and drinking and not enough physical activity can seriously affect your health (Measure Up television advertisement).

In a survey on nationally representative random sample of German adults, Sikorski et al. found that lack of physical activity and eating too much were the most strongly supported causes of obesity [638]. As described above, Saguy’s studies of the framing of the determinants or causes of obesity in news and scientific media have demonstrated the dominance of the behavioural causes frame [457]. Likewise, Kwan and Graves identified the dominance of behavioural causes in the ‘health frame’ evident in the position of the Centers for Disease Control and Prevention [407]. They also identified a strong behavioural causes theme in the ‘choice and responsibility frame’, in which lack of physical activity, but not food consumption was posited as a
causal root of obesity. Not surprisingly the choice and responsibility frame was evident in the position of the food industry sponsored Center for Consumer Freedom. The focus on physical activity as a primary behavioural causal factor was also evident in the industry position at the New Zealand Obesity Inquiry studied by Jenkin [607]. Overconsumption of food was also included in this frame, but the cause of such overconsumption was posited to be lack of knowledge, poor attitudes, lack of motivation and denial about weight problems. Specific behavioural non-causes in the industry frame were consumption of fast food, sugar, carbonated drinks, confectionary and alcohol [607].

As with the biological determinants, the textual practice of suppression was used to create the impression that unhealthy eating and physical inactivity were the only behaviours that had been shown to contribute to body weight. The literature includes a significant number of studies that have demonstrated a causal relationship between other behaviours and body weight changes. Some of these behaviours identified in the literature include:

- Maternal use of restrictive feeding practices [639]
- Decreased smoking [241]
- Dieting [235, 237, 238, 296, 640, 641]
- Unhealthy weight control behaviours (vomiting, laxative abuse, diuretic abuse, smoking) [238]
- Frequent self-weighing [642]

The dominance of the behavioural causes discourse was also evident in the synecdochal trope where obesity (a medicalised label for a physiological characteristic [413, 621]) was referred to as a behaviour or a lifestyle. For example:

Evidence has shown that certain lifestyle behaviours promote the onset of chronic disease. These include being overweight or obese, not getting enough physical activity, smoking, harmful alcohol consumption and unhealthy eating (Italics added) (Measure Up website).
Establish and implement a national program to alert pregnant women and those planning pregnancy to the ‘lifestyle’ risks of excessive weight, insufficient physical activity, poor nutrition, smoking and excessive alcohol consumption, and assist them to address these risks (Italics added) (Roadmap p. 152).

The Commonwealth Government agrees that the Agency should play a key role in social marketing for the lifestyle risks of chronic disease.... The Government has already allocated the Agency $102 million in social marketing funds... (to) the extension and expansion of the anti-obesity campaign ($41 million) (Taking Preventative Action p. 29).

It is hard to imagine any other physiological characteristic such as skin colour, height, eye or hair colour, being labelled as a behaviour, let alone a lifestyle, even if an antecedent behaviour may contribute to that characteristic. Linguistically it would be nonsensical for example to label brown skin as a lifestyle, despite the fact that sun exposure can contribute to temporarily darkening the skin, and the use of whitening agents can contribute to temporarily lightening the skin. And yet there were numerous representations of obesity as a behaviour or lifestyle throughout the documents. The synecdoche of body weight as behaviour or lifestyle was able to be used because of the presupposition or taken for granted assumption that body weight is a simple and direct result of behaviours, namely eating and physical activity.

Psychological factors

Weighing it up was the only document that made reference to psychological factors related to body weight. Discussion focused on the role of psychological factors in enabling or disabling behaviour changes related to healthy eating and physical activity. For example:

Evidence to the inquiry showed that people suffering from anxiety, depression and low self-esteem will find it very difficult to make the behavioural change necessary to alter their eating and exercise habits (Weighing it up p. 124).

Again, the textual practice of lexical absence resulted in other psychological factors that have been demonstrated to lead to weight gain to be omitted from Weighing it
up, and every other document omitting psychological factors completely. Some of these factors identified in the literature include:

- Weight dissatisfaction [643]
- Feeling overweight (even if normal weight) [644]
- Binge eating disorder [236]

Environmental determinants
All of the documents, except the social marketing campaigns, either explicitly or implicitly highlighted the role of environmental factors in contributing to body weight. These factors were frequently referred to by the word connotation phrase ‘obesogenic environment’. The causal pathway that linked environmental factors to body weight was through their impact on unhealthy eating and physical inactivity. For example:

Young people watch, on average, 2.5 hours of television per day and between 1985 and 1995 energy intake increased by 15% amongst boys and 12% amongst girls. Changes to our social, cultural, physical and economic conditions are driving these behaviours (Healthy Weight p. 2).

The environment plays an important role in our health and in helping to make sensible decisions about health. The environment is taken to include the global climate, the physical and built environment (for example, the workplace, air quality, planning decisions that affect our health), the socio-economic environment (including the working environment) and external influences such as the promotion of healthy or unhealthy behaviours (Obesity Technical Report p. 17).

Written and oral evidence to the inquiry identified the obesogenic environment as a major deterrent for many people trying to control their body weight. A number of submissions to the Committee indicated that societal changes have created an environment where we are time poor, rely on cars, walk less and have increased access to convenience foods (Weighing it up p. 122).

The impact of the environment on unhealthy eating and physical inactivity was the only environmental pathway presented in any of the documents. The textual practice
of lexical absence was used to omit any reference to other environmental factors that contribute to body weight either directly or through alternative behavioural pathways. Some of these factors were referred to in the section above on biological determinants, such as increased concentrations of endocrine disrupting chemicals, environmental cigarette smoke, foetal nutrition environment, limited variability in ambient air temperature and evolution in different latitudes. Other factors identified in the literature include:

- Parental conversations about body weight, which contribute to dietary restraint, unhealthy weight control behaviours, and binge eating disorder, which in turn contribute to weight gain [645]
- Weight teasing, which contributes to dietary restraint, unhealthy weight control behaviours, and binge eating disorder behaviours, which in turn contribute to weight gain [646]

The focus in the documents on an obesogenic environment which encourages and enables the perpetuation of unhealthy eating and physical inactivity was consistent with the literature over the past fifteen years or so [82, 243, 647-649]. Keith et al. [241] criticise the focus on what they refer to as the ‘Big Two’ obesogenic environment factors – food marketing and technological changes resulting in reduced physical activity. They claim that the evidence for 10 other obesogenic environmental factors may be stronger than that for the Big Two, but that the hegemony of the Big Two has led to the neglect of serious exploration of any other putative factors. The result of this, they claim, ‘may be well-intentioned but ill-founded proposals for reducing obesity rates’ (p. 1).

The hegemonic obesogenic environment discourse described by Keith et al. was evident in the public health frame identified by Jenkin [607], the health frame identified by Kwan and Graves [407], and the sociocultural and cultural cause frames identified by Saguy [457]. These frames were still subordinate to the dominant individual (behavioural) causes frame. In a study on perceptions of obesity causation in
the UK, health professionals and policy makers were more likely to view obesity as a ‘socio-ecologically determined problem’ than a problem determined by behaviours or individual deficiencies [239].

Recently published results from the Project EAT longitudinal study identified the psychological, behavioural and environmental factors that individually predicted movement from normal weight in adolescence to overweight 10 years later in young adulthood. For both males and females, these statistically significant predictive factors were body dissatisfaction, weight concerns, unhealthy weight control behaviours, dieting, binge eating, weight related teasing, parental weight concerns [650]. The only behaviours that predicted maintenance in the normal weight category were higher levels of whole grain intake, and breakfast and dinner consumption for females, and increases in vegetable intake for males. The authors concluded that initiatives aiming to prevent obesity should therefore focus on ‘promoting positive body image, decreasing unhealthy weight control behaviors, and limiting negative weight talk’ [650] (p. 1).

**Complexity of determinants**

Recognition of the complex inter-relationships within a system with multiple feedback loops operating at different levels is the basis of ecological science. The complexity of the obesity issue, the relationships between many of the determinants of obesity, and the multiple levels at which they operate were noted in some of the documents. For example:

The magnitude of the obesity problem (in Australia and internationally), the number of decades over which it has emerged, and the complexity and multitude of its health, social, economic, cultural and environmental determinants and consequences demand a long-term, comprehensive and well-funded response (*Obesity Technical Report* p. 15).

The United Kingdom (UK) Government’s 2007 report on obesity, Tackling Obesities: Future Choices (Foresight Report) expertly details a comprehensive causal relationship. The Committee accepts that there are various factors, including the aforementioned ones, which contribute increasing levels of obesity within society. The Committee well understands how
much more complex than a simple energy in – energy out equation the problem is and that it is a multifaceted issue. If anyone is in any doubt they should consult the obesity system map in the Foresight Report for an illustration of how tangled and interconnected the issues are (Weighing it up p. 10).

The (National Preventative Health) Agency will support all Australian Health Ministers in their efforts to combat the challenges arising from complex preventative health problems such as obesity ... which require(s) intensive effort to address, across a range of sectors over long time periods (Taking Preventative Action p. 27).

These excerpts illustrate the complex inter-relationships at different levels, but do not explicitly draw out the positive and negative feedback loops within the system. Finegood et al. also identified a lack of feedback loops within the obesity causal web produced by the International Obesity Task Force [651]. In contrast, the obesity systems map produced in Foresight Report, is thick with feedback loops to and from the proximal and distal determinants of energy imbalance. As Finegold et al. noted:

(T)he map effectively illustrates the complexity of obesity by highlighting the interdependencies among variables as diverse as the pressure on the food industry to cater for acquired tastes and conscious control of an individual’s accumulation of energy. The map is dominated by its illustration of the connections and feedback loops between variables (p. S13).

There have been calls from the health promotion field for the integration of complexity theory [652] into health promotion [653] as it is consistent with the ecological science approach adopted by modern health promotion [625].

**Control over the determinants**

Ecological science recognises that many parts of a complex system are outside the immediate control of people within that system. The Obesity Technical Report highlighted the fallacy of personal control over the environmental determinants of body weight. For example:
Multiple social, economic, technological, environmental and political factors interact to influence trends in population obesity and overweight. The majority of these are outside the control of individuals and families (Obesity Technical Report p. 15)

However other text highlighted the concept of personal control, which is more consistent with reductionist science. For example:

... each of us can control our own weight by controlling what we eat and how much we exercise (Weighing it up p. 119).

The concept of personal control was completely dominant in the social marketing campaigns. These campaigns not only maintained that body weight was within personal control, but that it was easy to control. For example:

It’s simple really. It just means swapping some of the things I’m doing now for healthier choices. That way I can lose my belly, without losing all the things I love. It’s easy! (Swap It, Don’t Stop It website).

This booklet will explain how you can improve your health by making a few easy changes to your diet and by being more active in your daily life (Tomorrow People booklet p. 3)

Overall, there was a considerable mixture of discourses regarding the determinants of body weight. There was a very weak discourse on the biological determinants. There was a very strong discourse on individually controllable behavioural determinants, with a sole focus on two behaviours – unhealthy eating and physical inactivity. There was a moderately strong discourse on the environmental determinants that shape unhealthy eating and physical inactivity behaviours, and a weaker discourse on the controllability of these environments. There was a relatively weak discourse on the complex inter-relationships between the determinants of body weight. As will be discussed in the sections below, the discourses on determinants contributed directly to the discourses on the strategy approach to addressing the determinants.
Summary

This section has described and discussed the extent to which the health promotion values and principles focused on the scientific approach to the determinants of body weight were evident in the documents. Through boundary critique I identified the assumption that there may be complex biological, psychological, environmental, social and economic factors that are outside the control of the individual and play a role in obesity through their impact on shaping personal behaviours. However, in the end, when it all boils down, eating and physical activity behaviours are within the control of the individual, and hence the determinants of body weight can be comfortably reduced to the synecdoche of ‘energy imbalance’. The overwhelming power and authority of this belief system allowed this discourse to dominate. Through reflective practice using the health promotion values and principles continuum as a critical questioning tool, I determined that overall, there was a moderately strong reductionist scientific approach to the determinants of body weight, and that the weight-related public health initiatives were therefore somewhat consistent with traditional health promotion.

7.1.5 Motivation for health

Description

The focus of these values and principles is on the motivation for health or reasons for the weight-related public health initiatives. In other words, why is there a need to take action? The desire for health as a resource for individuals, families and communities to live more joyful, fulfilled and richer lives with more equitable distribution of life’s opportunities is identified by the health promotion values and principles continuum as consistent with modern health promotion. At the traditional health promotion end of the continuum, motivation for health or reasons for the weight-related public health initiative are based on fear about health risk factors and diseases. Health is seen as an end in itself, and health risk behaviours, health issues and their consequences are to be avoided at all costs.
Result and discussion

Through the analysis I identified the dominant ‘alarm, threat and fear’ discourse related to the motivation for health. This led to the ‘healthism’ discourse whereby pursuing good health was a moral requirement.

From the epidemiological characterisation of the prevalence and trends of obesity, to the description and modelling of personal, social and economic costs of obesity, lexical choices enabled alarm and threat to permeate the discourse. In the section above on the construction of the issue I identified discursive practices used to present a range of assumptions as facts in order to create an objective ‘truth’ or scientific discourse about obesity. I also identified how other textual practices such as synecdoche were used to complement and reinforce the objectivist epistemology. In this section I examine the discourse of fear and threat was used in the documents to motivate personal and political action.

As was seen in the objectivist construction of the issue of obesity, the lexical choice of the term ‘epidemic’ was used throughout the documents to create a sense of alarm and panic. This usage was reflective of the widespread use of the term in the policies, reports and obesity literature around the world [15, 81, 654, 655]. Whether the term is scientifically accurate or whether it is used as a metaphor to enhance a sense of panic had been the subject of significant critique in the academic literature [17, 79, 107, 413, 421, 441, 443, 476, 492, 618, 621, 656-658], to some degree in the news media [465, 659, 660], and extensively in online blogs [661, 662] [663].

Other textual practices were used throughout the documents to further the sense of alarm and panic and the need for urgent action. One aspect of the scientific ‘obesity epidemic discourse’ was the concept of modelling studies. With the exception of the social marketing campaigns, there was significant use of discursive practice of claims-making to present authoritative scientific modelling of projections related to the epidemiology of obesity and the costs associated with it. The modelling studies presented ever more dire scenarios in which the prevalence and the costs of obesity...
continued to rise inexorably, unless urgent action is taken. These modelling studies added significantly to the sense of fear and alarm and the need for urgent, immediate action.

The *textual practice* of *mixing formal and informal genres* infused the scientific obesity epidemic discourse with a populist voice, and simulated equalisation so that the text producer appeared to be on an equal footing with the reader. These practices worked together with the *textual practices of word connotations and metaphor* to enhance the alarmist discourse. Some of the word connotation phrases used included:

- threaten the health gains (*Healthy Weight* p. i)
- enormous health, social and economic concern (*Healthy Weight* p. 2)
- a huge financial burden (*Healthy Weight* p. 2)
- should be an urgent priority (*Measure Up*)
- increased by a *staggering* 2.8 million (*Discussion paper* p. x)
- mounting concern (*Obesity Technical Report* p. 10)
- disturbing upward trend (*Roadmap* p. 9)
- one of the **greatest** public health challenges confronting Australia (*Roadmap* p. 88)
- disturbing picture (*Roadmap* p. 88)
- devastating impact on individuals, families and communities (*Roadmap* p. 88)
- urgent need to act immediately (*Roadmap* p. 90)
- eroding many of the health gains of past decades (*Roadmap* p. 90)
- impending overload of the health and hospital systems (*Overview* p. 6)
- costs are staggering (*Weighing it up* p. vii)
- escalating burden (*Taking Preventative Action* p. 7)
- dramatically increase into the future (*Taking Preventative Action* p. 19)

Textual metaphors that contributed to the alarmist discourse included:

- not a legacy we should be leaving our children (*Roadmap* p. 8)
- a sleeping time bomb (*Weighing it up* p. 27)
- spiralling costs (*Weighing it up* p. 36)
- turn the tide (*Taking Preventative Action* p. 7)
A militarist discourse was also invoked to further the alarmist discourse, with war-like terms used to create word connotations including: battle, combat, attack, target, aim at and hard-hitting. Interestingly, the metaphorical phrase ‘war on obesity’ was a lexical absence, and not used in any of the documents analysed, despite it being frequently used in the literature and general media, and subjected to scholarly critique [450, 495, 504, 664-667]. The militarist discourse was also identified in health promotion documents produced by the European Union [614].

The mixing of informal and formal genres using word connotations and metaphors contributed to the presupposition or taken for grantedness of the ‘facts’ being presented. The non-scientific, informal terms all signified that the current state of obesity in Australia is ‘alarming’ and requiring ‘urgent action’, thereby complementing and reinforcing the scientific discourse.

Turning to analysis of the visual imagery, both the Measure Up and Swap It, Don’t Stop It included a combination of written/verbal text and visual images that created a sense of alarm and fear. Outside of these campaigns, there was a visual semiotic absence of photographic or video images of people of any size that created alarm or fear. Most notably there was a complete visual semiotic absence of photographs or images of fat people in all of the documents. This absence of fat people in visual imagery – a form of cultural imperialism [388] – contributed to the invisibilisation of fat people and reflected a lack of acceptance of diversity. This was consistent with the general lack of representation of fat people in entertainment media [668]. Where images of fat people are included in the entertainment media, they are more likely to present fat people in a negative light [669, 670]. This is consistent with the news media, which generally use photographs or video footage of people, cropped to remove their heads, and often dressed poorly and eating ‘junk food’ [383, 671] – a visual trope referred to by Cooper as ‘headless fatties’ [384] – to illustrate items related to obesity. Such images have been demonstrated to increase weight stigma [672] but were notably absent from the documents analysed.
In contrast, the imagery used in the social marketing campaigns conveyed and reinforced fear-based messages. In *Measure Up*, the central character starts out as young, slim man, and as he ages his waist circumference grows. When he learns from an external source (the voiceover in the television advertisement or the text in the print and online materials) that the increased size of his waistline is associated with an increased risk of chronic disease, his facial expression and body language convey that he is sad, dejected and possibly fearful (Figure 8).

![Image of central character in Measure Up social marketing campaign](image)

**Figure 8: Image of central character in Measure Up social marketing campaign**

In the television advertisement the man’s daughter, who has run into the frame, stops dead and looks fearful when she hears about his increased risk of disease. Using the discursive practice of claims-making, the authoritative external source informs the man that the more he gains (in terms of his waist circumference), the more he has to lose. The clear implication is that he needs to be fearful of losing his health, his family and even his life if he doesn’t reduce his waist circumference.

The visual metaphor of a balloon was used as the central semiotic trope in *Swap It, Don’t Stop It*. The characters and other items featuring in the visuals were all made from twisting balloons. Balloons themselves may not create fear or alarm, unless one is unfortunate to be afflicted with globophobia [673], but the visual metaphor of the
balloon in the social marketing campaign had a range of alarmist meanings. At the population level, rates and/or costs of obesity have been described in news items as ‘ballooning’ [92, 674-676] with accompanying visual images of extremely well-rounded bodies. Rapid or significant weight gain is sometimes referred to in everyday language as ‘ballooning weight’. And finally, the balloon is an item that is easy to inflate, deflate and manipulative into different shapes.

The use of the balloon metaphor as a visual device in *Swap It, Don’t Stop It* served to reinforce and extend the multiple alarmist messages about obesity that were present in the texts: population level prevalence of obesity is increasing rapidly and is out of control; costs of obesity and the burden to the health sector are increasing rapidly and out of control; and people categorised as obese people are phenotypically extremely large. As with *Measure Up*, the written/verbal text used in *Swap It, Don’t Stop It* complimented the images used to create fear for the central character. The central character of *Swap It, Don’t Stop It* is Eric, a man in his forties with a large waistline. The script for the first television advertisement in the campaign introduces the character:

The hero of this ad is ‘Eric’. He’s a chubby blue man made entirely of balloons twisted together. He has a simple face with clothes drawn onto his balloon body. The ad begins with Eric coming out of the shower. He stands in the middle of his bathroom and looks in the mirror. There are still a few beads of water on his balloon body. As he looks at his reflection we see his body inflate a little. Then his belly inflates a little more. And more again. He prods his large balloon belly with his hand and we hear it squeak. He has the voice of your typical Aussie bloke in his forties. We hear him talking as a Voice-over.

Eric: Hi, I’m Eric
If you’re like me, over the years, you’ve started puttin’ it on... and on.
The camera zooms in on his chest. We see inside to his balloon heart. It’s obviously under pressure because of the increased size of his belly. We see other smaller balloons suggesting cancer.

Eric: But the last thing I want is to end up with type two diabetes, cancer or heart disease.
We zoom back out to now see Eric with a little balloon baby draped over his shoulder.
He pats her on the back and burps her. She lets out a little wind.
Eric: I’ve got too much to live for.
Risk of disease was parlayed seamlessly into risk of death in the transition from ‘ending up with type two diabetes, cancer or heart disease’ to ‘I’ve got too much to live for’. As with the Measure Up character, the clear implication is that Eric should be fearful of losing his life if he doesn’t reduce his waist circumference. Both campaigns were specifically designed to raise the level of personal alarm for people with a waist circumference above levels determined on the basis of population-based epidemiological studies.

The campaigns created fear and alarm for the purpose of motivating the characters and therefore the public to whom the campaigns were ‘targeted’, to pursue health through the adoption of behaviours that were intended to reduce their waist circumference. The campaigns reflected the healthism discourse, with an implied moral obligation on the part of the characters (and therefore the public) to adopt a healthier lifestyle for the purpose of pursuing health. The healthism discourse has been identified by numerous scholars in other weight-related public health initiatives [462, 477, 516, 613, 677], as well as in initiatives that are weight-neutral but nonetheless imply a moral responsibility to pursue health [514].

Summary
This section has described and discussed the extent to which the health promotion values and principles focused on motivation for health were evident in the documents. Through boundary critique I identified that the dominant motivational discourse was alarm and fear about the current state and implications of obesity at the personal and population levels, which resulted in the healthism discourse whereby pursuing good health was regarded as a moral requirement. Through reflective practice using the health promotion values and principles continuum as a critical questioning tool, I determined that fear about consequences of behaviours was the dominant motivation for health, and that the weight-related public health initiatives were therefore strongly consistent with traditional health promotion.
7.1.6 Assumptions about people

Description
The focus of these values and principles is on the assumptions that are made about the nature of people and their health within the weight-related public health initiatives. The health promotion values and principles continuum identifies assumptions that people are naturally healthy as consistent with modern health promotion. Modern health promotion assumes that when left to their own devices, most people will do the best they can for themselves, their family and their community, given their circumstances and available resources. Assumptions that people are naturally unhealthy are identified as consistent with the traditional health promotion end of the continuum. This position means that if left alone with no external intervention, most people are naturally ignorant of what is required to be healthy, will naturally adopt ‘unhealthy’ behaviours lifestyles, and need to be motivated (or even coerced) to adopt healthy lifestyles.

Result and discussion
Through the analysis I identified the overwhelming dominance of the ‘people are naturally unhealthy’ discourse in which people require intervention from others to set them on the path towards better health.

The dominance of this discourse was a natural extension of the discourses identified in previous sections about the construction of the issue and the determinants of body weight – that ‘too much’ body fat is problematic and determined by poor behaviours. Given the foundations laid by these discourses, it would have been almost impossible for the documents to then operate under the assumption that people are naturally healthy. Strong support for this assumption was evident in the visual imagery used in the documents, particularly the Healthiest Country documents and the social marketing campaigns. As described in Chapter 4, the Healthiest Country documents addressed the issues of obesity, tobacco and alcohol use, and as such the imagery included references outside the scope of obesity. However the overall use of imagery
in these documents is analysed and discussed as it is not possible to consider the images in isolation.

The *Healthiest Country* documents produced by the National Preventative Health Taskforce all employed the same visual branding. The cover of each document included a solid block of colour atop a horizontal strip of six full-colour photographic images for the top half of the page. Directly below was a horizontal strip of six monochromatic photographic images atop a multi-tonal block of the same colour on the bottom half of the page. The common stem name of the documents *Australia: The Healthiest Country by 2020* was positioned in the colour block in the top half of the page. The specific branch title for each document – referred to here as *Discussion paper, Obesity Technical Report, Roadmap and Overview* – was positioned in the colour block in the bottom half of the page, above the preparation attribution to the National Preventative Health Taskforce. Each half of the page is described in detail and discussed separately, followed by discussion of the interpretation of the page overall.

In the top half of the page, the strip of bright full-colour images included: three young children playing football (soccer) on sand; two middle aged cyclists riding for leisure; a collection of fresh fruits; a man and woman jogging with a dog; a group of young teenagers playing games in a park; and a woman (presumably a mother) holding a young baby in her arms and a man (presumably the father) looks on over her shoulder. The images in the top half of the page were visually linked to the aspirational title (the healthiest country) in the solid block of saturated colour above them by the use of complementary colours. In addition the two components comprised almost exactly half the page height, providing further visual linkage. These visual practices ensured that the first set of images was closely tied to the concept of ‘good health’. The images had high deontic modality and represented a set of instructions as to how to achieve good health – healthy eating, physical activity and parental bonding. A range of other visual practices were also employed to reinforce the authority and veracity of the good health discourse, beyond the initial deontic reading of the images as instructions or directions to achieve good health.
In the images of people (which comprised five of the six images), the subjects were all pictured front on or at a slight side angle off centre. There were no images where the subjects were facing greater than 45 degrees off centre or from behind. All images were shot horizontally, with no images from above or below. All of the images were of groups of at least two people, with the subjects in open poses and interacting with each other. The baby, woman and man group was shown in close up and the other groups were shown in the middle distance. None of the images were long distance. The three young boys playing football appeared to be Aborigines. All other subjects appeared to be Caucasian.

The angle of the gaze of people within the images, the angle the images were shot from, the use of groups of people, the interaction of people within each group, the distance of the images, and the variety of cultures included across the images were all visual practices that contributed to a good health discourse. These practices, together with the use of saturated colour, conveyed concepts of energy, happiness, fun, leisure and play. The poses and angles further conveyed a sense of connectedness between the people and openness with the viewer. The use of saturated colour also conveyed openness with the viewer. The inclusion of at least one image of non-Caucasians conveyed at least some degree of cultural diversity. All of these concepts are signifiers of holistic health and wellbeing. The use of these visual practices ensured that the images conveyed a deeper meaning than the surface concepts of healthy eating, physical activity and parental bonding. Standing alone, these images could have conveyed the assumption that people are naturally healthy. However the juxtaposition of these images with those in the lower half of the page challenged that reading.

The images in the lower half of the page used a range of visual practices to present a stark contrast to those above. As with the top half of the page, the images were visually linked to the National Preventative Health Taskforce’s disease prevention concept through colour and tone, however in this instance the connection was even more obvious. The multi-tonal monochromatic block of partially saturated colour
covered the whole lower half of the page, presenting it as a single image comprising almost exactly half the page height. The initial surface reading of the colour and content of the images clearly established the role of four practices as undesirable (washed out) practices that contribute to poor health – drinking alcohol, smoking, eating ‘junk’ food and being physically inactive. The visual practices employed in the images further reinforced the portrayal of these practices as contributing to poor health and in need of prevention.

Two of the six images included a person, and in both images the person was alone. The image of the person smoking was shot in extreme close up thereby anonymising the lone subject, and de-personalising and de-contextualising the practice of cigarette smoking. The image of the lone, young, apparently Caucasian man showed him lying on the bed in somewhat closed pose, looking at his laptop but facing towards the rear of the shot. This middle distance image was shot from behind and above; visual practices that collectively signified closedness, vulnerability, lowered status and reduced agency. This image did not convey healthy leisure time activity, but rather unhealthy sedentary behaviour and perhaps even social isolation. The other images in this strip were relatively close up images of substances devoid of people to humanise their consumption. The use of the visual practices described here together with the presentation of these images in pale monochromatic close up signified that these were unappealing, undesirable and rejected practices.

Putting the two halves of the cover pages of the Healthiest Country documents together, the overall visual reading supports the assumption that people are naturally unhealthy. Firstly, the images in the top half of the page signified ‘good health’ practices, and were also visually tied to the aspirational title Australia: The Healthiest Country by the Year 2020. Taken together, the resulting visual image of the top half of the page could be interpreted to mean that these are the practices needed for Australia to become the healthiest country, or what the healthiest country would look like in the year 2020.
Secondly, the visual practices used in the lower half of the page signified ‘poor health’ practices, and were visually tied to the concept of health (disease) prevention through linkage with the National Preventative Health Taskforce name. Taken together, the resulting visual image of the lower half of the page clearly conveys that the elimination of the ‘poor health’ practices is required to prevent disease and therefore enable Australia to become the healthiest country by the year 2020. When the cover is viewed as a single image – the way a cover page with a small number of orderly positioned images would normally be viewed – the viewer is left with the clear impression that we need to be doing more of the ‘good health’ practices and less of ‘poor health’ practices. This interpretation is reinforced through the use of three of the ‘good health’ images – the fruit, the couple running and the mother, father, baby image – as the running header for the left page throughout all of the documents, and four of the ‘poor health’ images – the wine bottle, cigarettes, chips and young man lying in bed – as the running header for the right side pages throughout the documents. The visual practice of juxtaposed images serves to continuously reinforce the contrast between the good health practices that must be adopted and poor health practices that must be avoided.

The instructive discourse created by the images and their placement on the cover and throughout the document was consistent with the assumption that people are naturally unhealthy and need to be told how to be healthier. This discourse was reinforced in the text. Throughout all of the documents analysed for the study, people needed to be ‘informed’, ‘alerted’, ‘educated’, ‘instructed’ and ‘motivated’ to adopt healthier behaviours or a healthier lifestyle. (The healthy lifestyle discourse is examined in more detail in the section below on the program basis.)

The ‘people are naturally unhealthy’ discourse, including the sub-discourse that people are naturally ignorant and in need of expert advice, was also evident in the imagery and written text used in the social marketing campaigns. In Measure Up, the central male character was positioned as naturally ignorant and unhealthy, and needing the authoritative external source to inform him that the increased size of his waistline is
associated with an increased risk of chronic disease. He learns that the more he gains, the more he has to lose.

The objectives of *Measure Up* were all based on the assumption of ignorance and presence of unhealthy behaviours:

- to increase awareness of the link between chronic disease and lifestyle risk factors (poor nutrition, physical inactivity, unhealthy weight);
- to raise appreciation of why lifestyle change should be an urgent priority;
- to generate more positive attitudes towards achieving recommended changes in healthy eating, physical activity and healthy weight; and
- to generate confidence in achieving the desired changes and appreciation of the significant benefits of achieving these changes.

In *Swap It, Don’t Stop It*, Eric is seemingly ignorant about a range of ‘unhealthy’ practices, including eating large meals or ‘junk’ food and being sedentary:

> Every day we might do things, eat things and drink things that aren’t great for us. Sometimes we know we’re not making the best decision, other times we don’t.’

His ignorance extends to the dangers represented by the consequences of these behaviours, including increased risk of chronic disease. Eric is perplexed, unhappy and fearful now that he’s been told that his behaviours have led to his increased weight and put him at risk of disease. This state is reflected in Eric’s facial expression in all of the images in which he reflecting on his weight and engaging in the unhealthy practices (Figure 9). Eric is positioned as ignorant and naturally unhealthy, and in need of expert advice from health professionals to educate him about his behaviours, his weight and his risk of chronic disease.
In the next phase of the campaign, Eric is depicted as making some small changes in his behaviours – swapping ‘unhealthy’ for ‘healthy’ – in order to lose weight and reduce his risk of chronic disease. The simple deflation of a balloon is a visual practice used to represent the ease with which one can make a swap (for example driving a car to riding a bicycle) and consequently the ease with which Eric can lose his belly. Subsequent images show a slimmer Eric practicing his new ‘healthy’ behaviours.

Assuming that people are naturally ignorant and therefore unhealthy is a foundation assumption on which all health promotion initiatives that aim to increase knowledge about healthy behaviours are based. Most often the lack of knowledge is assumed, rather than substantively demonstrated, particularly for people who are commonly regarded as least educated. People from Newfoundland in Canada are regarded as fitting this category [678]. According to McPhail:
...biopedagogies of obesity have been deployed by public health offices in the province, through which Newfoundlanders are imagined as unhealthy eaters who are unknowledgeable about healthy eating, a narrative which aligns with older classist stereotypes about Newfoundland as ubiquitously poor, its population uneducated, backward, and naïve (p. 289).

In studying the knowledge levels of Newfoundlanders however, McPhail determined that contrary to the assumption of the public health offices, study participants were actually ‘knowledgeable about and invested in biopedagogies of healthy eating and healthy weights as propagated by public health discourse’ but also ‘resisted them through alternative understanding of healthy foodways’ (p. 289). The assumptions underpinning the health promotion programs targeted at the Newfoundlanders were therefore shown to be highly inaccurate.

Another element of the ‘people are naturally unhealthy’ discourse related to the assumption that people do not know or acknowledge that they or their children are ‘overweight’. For example:

With the increasing prevalence of overweight and obesity nationwide, it appears that Australians may perceive being overweight as ‘normal’ and hence many overweight people may not consider that they have a problem. ... In addition, trends suggest that overweight or obese adults are increasingly likely to see themselves as having an acceptable weight. The proportion of overweight or obese Australians who perceived themselves as having an acceptable weight increased from 37% in 1995 to 41% in 2001 and 44% in 2004–2005 (Obesity Technical Report p. 32).

Rather than being positioned as a positive development signalling increased body satisfaction (which results in increased self-care), the increasing number of Australians who do not label their weight as unacceptable was lamented, and resulted in the proposal for specific strategies to correct this ignorant and unacceptable perspective:

Social marketing campaigns involving public education and the engagement of healthcare professionals can help to raise community awareness about relatively fundamental issues, such as what constitutes healthy weight for adults and for children, as well as providing information
and resources about healthy eating and activity. This is important in addressing misperceptions about healthy levels of weight in the Australian population (Obesity Technical Report p. 32).

Similar concern was expressed with the low levels of mothers expressing concerns about their children’s weight, despite their children being normatively overweight. For example:

> While overweight is often established by school entry age, not all mothers of children who are overweight at this point report weight concerns. Enhancing maternal concern might assist lifestyle change, but could lead to child body dissatisfaction (Obesity Technical Report p. 99).

The report then cited a prospective study that demonstrated that mothers’ concerns about children’s weight at four years of age did not predict any changes in the child’s weight by the age of 6.5 years. The study authors concluded that ‘despite low rates of recognition of child overweight, maternal perceptions of the child’s body correlated strongly with the child’s actual BMI’ (p. 99). The reframing of ‘mothers’ lack of concern about weight’ as ‘low recognition of child overweight’ highlights the assumptions made about the ignorance of the mothers. An alternative potential explanation is that mothers are averse to labelling their children with the normatively derived, stigmatising label of ‘overweight’. This potential explanation is consistent with a growing body of research demonstrating the rejection of medicalised weight labels by and for children, adolescents and adults [11, 679-681].

**Summary**

This section has presented and discussed the extent to which the health promotion values and principles focused on assumptions about people were evident in the documents. Through **boundary critique** I identified the strong presence of the assumptions that people are naturally ignorant about healthy behaviours (healthy lifestyles) and therefore do not adopt such healthy behaviours. Through **reflective practice** using the health promotion values and principles continuum as a critical questioning tool, I determined that **assumptions that people are naturally unhealthy**
were dominant, and that the weight-centred public health initiatives were therefore strongly consistent with traditional health promotion.

7.2 Summary and conclusion

This chapter presented the results related to the values and principles in the health promotion values and principles continuum that focus on why weight-related public health initiatives were needed, and discussed the results in relation to the literature. The chapter addressed the values and principles that focused on worldview, epistemology, health paradigm, scientific approach, motivation for health and assumptions about people within the weight-related public health initiatives.

In focusing on the worldview on equity, I identified ‘addressing inequality’ as the major discourse. With respect to the worldview on responsibility, there were two competing discourses: ‘everyone’s responsible’ and ‘ultimately individuals are responsible’. An ‘objectivist’ discourse was evident in the epistemological construction of the issue and the solutions to the issue, and a ‘constructivist’ discourse was also evident in the epistemological construction of the solutions to the issue. The ‘biomedical health’ discourse was evident as the health paradigm. In turning to the scientific approach, I identified mix of ‘social determinants of health’ discourses focusing on health systems, health behaviours, and the differential distribution of health status and behaviours according to group membership. The ‘ecological’ and ‘reductionist’ discourses were both evident in relation to the scientific approach to the determinants of body weight. I identified the ‘alarm, threat and fear’ discourse and an associated ‘healthism’ discourse in relation to motivation for health. Finally, the ‘people are naturally unhealthy’ discourse was dominant in relation to assumptions about people.

The extent to which these discourses were reflective of the values and principles of modern or traditional health promotion was determined (Table 8). The discourses were somewhat or strongly consistent with all but two of the values and principles of traditional health promotion, and the weight-related public health initiatives were therefore not consistent with health promotion best practice.
Table 8: Discourses and place on continuum for values and principles related to why weight-related public health initiatives were required

<table>
<thead>
<tr>
<th>Focus of values and principles</th>
<th>Discourses</th>
<th>SM</th>
<th>SWM</th>
<th>SWT</th>
<th>ST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worldview: Equity</td>
<td>Addressing inequality</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worldview: Responsibility</td>
<td>Everyone’s responsible Ultimately individuals are responsible</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epistemology: Construction of issue</td>
<td>Objectivist</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Epistemology: Construction of solution</td>
<td>Constructivist Objectivist</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Health paradigm</td>
<td>Biomedical health</td>
<td></td>
<td></td>
<td>x</td>
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</tr>
<tr>
<td>Scientific approach: Social determinants of health</td>
<td>Multi-level discourses on social determinants of health</td>
<td></td>
<td></td>
<td>x</td>
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</tr>
<tr>
<td>Scientific approach: Determinants of body weight</td>
<td>Reductionist Ecological</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Motivation for health</td>
<td>Alarm, threat and fear Healthism</td>
<td></td>
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<td></td>
<td>x</td>
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<tr>
<td>Assumptions about people</td>
<td>People are naturally unhealthy</td>
<td></td>
<td></td>
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<td>x</td>
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</tbody>
</table>

SM=strongly reflective of modern health promotion; SWM=somewhat reflective of modern health promotion; SWT=somewhat reflective of traditional health promotion; ST=strongly reflective of traditional health promotion

The following chapter presents and discusses the results related to the values and principles in the health promotion values and principles continuum that focus on what weight-related public health strategies were proposed or implemented within the weight-related public health initiatives.
Chapter 8  Values and principles related to what weight-related public health strategies were proposed and implemented

8.0  Introduction

The previous chapter addressed the values and principles in the health promotion values and principles continuum that focus on why weight-related public health initiatives were required. This chapter presents the values and principles in the health promotion values and principles continuum that focus on what weight-related public health strategies were proposed and implemented as part of the weight-related public health initiatives (Figure 10), and discusses the results in relation to the literature. Results are discussed at a theoretical level in Chapter 9.

Figure 10: Schematic diagram of Chapter 8 contents
In this chapter, only weight-related public health strategies relevant to the discipline of health promotion are examined. Other public health strategies such as population surveillance and economic modelling were outside the scope of this study. The chapter addresses the extent to which the public health strategies proposed or implemented within the weight-related public health initiatives reflected philosophical, ethical and technical health promotion values and principles. The philosophical health promotion values and principles in this chapter focus on who to work with, the program basis, the nature of strategies and the distribution of power. The ethical health promotion values and principles focus on participation in the change process, personal autonomy, beneficence, non-maleficence and basis for practice. The technical health promotion values and principles focus on the strategy approach, governance and decision-making, professional role and impact evaluation indicators.

As with the previous chapter, each result is presented in three sections. Firstly, the health promotion values and principles reflecting each end of the values and principles continuum are described. Secondly, the discourse practices and strategies used within the documents to frame the discourse about these values are identified and discussed. Thirdly, each result is summarised and discussed with respect to the boundary critique and reflective practice components of Critical Systems Heuristics.

The discourses presented and discussed in this chapter are as follows. With respect to the philosophical values and principles, through the analysis I identified that in relation to who to work with, the ‘mixed approach’ discourse was dominant, and within that the whole population was the primary focus, and the quantitatively determined ‘target groups’ were a secondary focus. A ‘deficit-based approach’ discourse was strongly evident with respect to the program basis. In looking at the nature of strategies, and ‘enabling but not empowering’ discourse existed alongside a ‘militarist target-intervention’ discourse. This discourse was also present in relation to the distribution of power, together with opposing ‘redistribution of power’ and ‘concentration of power’ discourses.
Turning to the ethical values and principles, with respect to participation in change process, there was a ‘tokenistic participation’ discourse. A strong ‘choice’ discourse was present concurrently with a ‘coercive, paternalist’ discourse related to personal autonomy. With respect to beneficence, I identified a ‘beneficiaries but not benefits’ discourse. Discourses related to maleficence included a weak ‘no harm’ discourse coupled with the presence of significant potential for harm that was not recognised or acknowledged. Focusing on the basis for practice, there was a strongly objectivist ‘evidence of need’ discourse, strong ‘need for evidence’ discourse and an absence of discourse on theoretical foundations.

Finally, within the technical values and principles, I identified a ‘multi-strategic, multi-level, multi-setting’ discourse related to the strategy approach, coupled with an ‘enable and disable health behaviours’ discourse. With respect to governance and decision-making, I identified a weak ‘citizen power’ discourse in one small section, tempered by the absence of discourse throughout the remainder of the documents. There was a ‘lexically absent but expertly present’ discourse related to professional role, and an ‘unhealthy behaviours and disease’ discourse related to impact evaluation indicators. These results are presented and discussed in this chapter.

8.1 Philosophical values and principles

This section focuses on the philosophical health promotion values and principles related to what public health strategies are proposed and currently implemented in the weight-related public health initiatives. Philosophical health promotion values and principles in the health promotion values and principles continuum focus on who to work with, the program basis, the nature of strategies, and the distribution of power.

8.1.1 Who to work with

Description

These values and principles are concerned with how the weight-related public health initiatives prioritise who to work with. Public health strategies that work with
communities that are determined by equity considerations – meaning those communities that are most marginalised, vulnerable and disadvantaged and often regarded as ‘hard to reach’ – are consistent with modern health promotion. Focusing public health strategies on whole groups or populations is consistent with traditional health promotion.

**Result and discussion**

Through the analysis I identified an explicit ‘mixed approach’ discourse related to who to work with, or more correctly, who the public health strategies should focus on.

As discussed in the section above on worldview, there was strong discourse on addressing inequity, or more precisely, inequality in health status and prevalence of behavioural risk factors between different population groups. The textual practice of word connotations was used to describe those ‘most in need’, ‘in poorest health’, ‘at risk’, ‘vulnerable’ and ‘disadvantaged’ as high priorities for health promotion action. Population groups identified as having lower health status and/or higher prevalence of obesity included the following:

- Indigenous Australians
- People with low socioeconomic status
- People of different cultural backgrounds, particularly from Asia (India and China), Pacific Islands and the Middle East
- Recent immigrants – especially refugees and those escaping conflict
- People with disabilities
- People from rural and remote locations
- People with the least education
- People with the least income
- Younger people

In many cases specific population groups were described, using the textual practice of word connotations, as ‘target groups’ at whom ‘interventions’ would be aimed or
targeted. The use of these terms will be explored further in the section below on enabling and disabling health promotion strategies.

The discursive practice of claims-making was evident in the use of expert sources to describe the significant health disparities within the population in Australia, with some social practice references to the ideology of fairness as justification for addressing these disparities, but no reference to the ideological basis of social justice.

The textual practice of word connotations was also used as part of an equally strong discourse about the need for public health strategies to focus on the whole of the population, based on the rationales that: there are high rates of obesity across the community; everybody has a role to play in addressing the issue; and most of the determinants of body weight are outside the control of individuals and communities (an inconsistent discourse as discussed above). For example:

Engage the whole community—healthy weight is everybody’s business (Healthy Weight p. 4).

The campaign is for all Australians (Measure Up website).

Prevention programs need to reach the whole of the population (Discussion paper p. viii)

In an example of somewhat convoluted logic, using the discursive practice of hedging the existence of a social gradient in health was used as justification for a whole population approach. For example:

A policy and programmatic focus on only the most disadvantaged, in this instance women with primary level education, would miss the equally significant health burden from obesity among women along the remainder of the education spectrum (Roadmap p. 60).

Understanding health inequity in terms of the social gradient in health allows us to embrace not only conditions of absolute poverty and exclusion but social conditions that affect everyone. In doing so, policies and programs will have greater potential to reach a wider population, thereby improving the health of more people (Roadmap p. 60).
The dominant discourse throughout the documents was that of a mixed approach in which both ‘at risk’ groups and the whole population would be the focus of different public health strategies. For example:

Implement comprehensive community-based interventions that encourage and support healthy lifestyles among all population groups, particularly in areas of disadvantage and among groups at high risk of unhealthy weight gain (Obesity Technical Report p. 36).

There is a clear need to balance policy directions that focus on individual and personal responsibility with a population-wide focus on policies that support and facilitate healthy eating and physical activity. Evidence indicates there is a wide range of forces, most of which are outside the control of individuals and families, that interact to shape patterns of overweight and obesity, and the high rates of overweight and obesity in the community warrant a population-level response (Obesity Technical Report p. 18).

Reducing inequity within society is a fundamental value of modern health promotion, as stated in WHO health promotion declarations and statements from the Ottawa Charter for Health Promotion onwards [30]. The whole population approach to obesity prevention, using social marketing campaigns for behaviour change as its primary tool, has been criticised as being ineffective at reducing obesity or the hegemonic behavioural determinants of healthy eating and physical activity [682]. In a study by Thomas et al. on obese people’s attitudes to obesity prevention initiatives, fewer than half of the participants thought that the social marketing campaigns focusing on healthy eating and physical activity conducted by governments were effective in engaging individuals in lifestyle changes, and only a third of the participants thought that media campaigns focusing on obesity were effective [473]. A study by Puhl et al. found that public health messages focused on increasing fruit and vegetable consumption, and general messages involving multiple health behaviours were rated as the most motivating, compared to messages focused on obesity.

A greater concern about population wide social marketing campaigns is the criticism that they create harm through their contribution to weight-based stigma and discrimination [37, 473, 682, 683]. A further criticism of population wide social
marketing campaigns generally is that they exacerbate health inequalities [34]. Harmful effects will be examined further in the section below on non-maleficence.

**Summary**

This section has presented and discussed the extent to which the health promotion values and principles focused on who to work with were evident in the documents. Through boundary critique I identified a strong mixed approach discourse that included a primary focus on the whole population, and a secondary focus on specific groups within the community identified on the basis of unequal distribution of obesity rates (not the unfair, inequitable distribution of the determinants of health). This discourse was based on the assumptions that: obesity is widespread in the population; addressing obesity is everyone’s business; social marketing campaigns are effective at changing behaviours and therefore reducing obesity; obesity is more prevalent in particular ‘high risk’ groups; those groups need to be targeted with specific interventions. The mixed approach discourse was dominant, and within that the whole population was the primary focus, and the quantitatively determined ‘target groups’ were a secondary focus. Through reflective practice using the health promotion values and principles continuum as a critical questioning tool, I determined that working with the whole population was dominant over working with groups determined by equity, and that the weight-centred public health initiatives were therefore somewhat consistent with traditional health promotion.

**8.1.2 Program basis**

**Description**

These values and principles address the basis for weight-related public health initiatives; that is, what the public health strategies will focus on. A strengths-based approach, with an emphasis on enhancing the salutogenic factors that people are already doing ‘right’ in order to improve health, wellbeing happiness and meaning in life, is identified by the health promotion values and principles continuum as consistent with modern health promotion. A deficit-based approach, with an emphasis in the public health strategies on reducing or eliminating the things people
are doing ‘wrong’ in order to prevent specific diseases, is identified as being consistent with traditional health promotion.

**Result and discussion**
Through the analysis I identified a strong ‘deficit-based approach’ discourse related to the program basis.

In the section above on the determinants of body weight, despite some acknowledgement of the complexity of the determinants of body weight, the hegemonic discourse of behavioural determinants, which is consistent with reductionist science, was identified. This discourse focused specifically on unhealthy eating and physical inactivity as the primary (only) behaviours that contributed to body weight. In the section above on assumptions about people, the hegemonic discourses of ‘people are naturally ignorant about good health behaviours’ and ‘people are naturally unhealthy’ (that is, practice unhealthy behaviours) were identified. When turning to the design of public health strategies, the logical extension of these discourses was that such strategies needed to focus on reducing the determinants of unhealthy eating and physical inactivity. The resulting discourse of a ‘deficit-based approach’ was strongly evident throughout the documents. The lexical choices used to frame this deficit were both positive and negative, but essentially amounted to two sides of the same deficit-based discourse.

The negative lexical choices related to public health strategies needing to address the following deficits or negatives:

1. Unhealthy weight (overweight and obese categories)
2. Unhealthy waist circumference (over a specific measurement for males and females)
3. Lack of (or inadequate) knowledge about the seriousness of the health risks posed by obesity (heart disease, cancer, type 2 diabetes, death)
4. Lack of knowledge about susceptibility to health risks posed by obesity
   (everyone with a BMI or waist circumference over ‘healthy’ category)
5. Lack of fear and alarm about obesity as a health issue
7. Lack of correct identification of self and others (children) as unhealthy weight
8. Lack of knowledge about unhealthy eating and physical inactivity as the
   behavioural determinants of obesity
9. Lack of motivation to act on determinants
10. Lack of access to affordable healthy food
11. Lack of access to affordable physical activity
12. Lack of taxes on unhealthy food
13. Lack of regulation of food, beverage and advertising industries
14. Environments that make unhealthy choices the easy or only choice

Some of the positive lexical choices were merely the binary opposite of a deficit but
others addressed new issues that had not been framed in the negative. To varying
degrees, public health strategies were framed as needing to enhance:

1. Healthy weight
2. Healthy eating and physical activity
3. Healthy choices
4. Healthy lifestyles
5. Cooking skills
6. Healthy growth and development
7. Breast-feeding
8. Self-esteem
9. Physical confidence and skills
10. Fun and enjoyable physical activity
11. Fun, interesting and exciting healthy choices
12. Productivity and competitiveness of workforce
13. Subsidies for healthy food
14. Supportive environments for health

The presence of these positive lexical choices in the documents may have given the impression that the public health strategies proposed or implemented adopted a strengths-based approach. However the fact that these positive lexical choices appeared within an overwhelmingly negative context dominated by discourses of disease, risk factors for diseases, negative assumptions and negative motivation ensured that the dominant discourse about public health strategies was also negative or deficit-based.

Because of this context, whenever positive sounding lexical choices were used, the underlying implication (derived from the context of those lexical choices) was the need to avoid something negative. For example, whenever the term ‘healthy lifestyle’ was used, the implication was that public health strategies were needed to move people away from current unhealthy lifestyles towards healthy lifestyles. The term ‘healthy lifestyle’ was a synecdochal term used to represent healthy eating and physical activity. The ostensibly positive healthy lifestyle discourse, which was strongly evident in the documents, was reframed as a negative discourse by virtue of its overwhelmingly negative context. In Swap It, Don’t Stop It, the textual practice of metaphor was used to emphasise to the reader, that like Eric, he needs to lead his whole family towards good health, thereby implying that they are currently in a place of poor health from which they need to move away. For example:

If you’re like Eric, you’ll want to get your family travelling along the path to good health and wellbeing too. Nothing beats a role model, so lead by example and show the people you care most about how easy it is to become a family of swappers (Italics added) (Swap It, Don’t Stop It website).

Within the social marketing campaigns, the textual practices of conversational and fictional genres were used to normalise the focus on deficit behaviours. In the Swap It, Don’t Stop It brochure for example, the fictional ‘average Aussie bloke’ Eric introduced
himself in conversational language. Immediately following his introduction is some information designed to increase perception of susceptibility to disease.

Hi, I’m Eric. If you’re like me, over the years you’ve started putting it on … and on. Did you know that carrying excess weight around your waist can increase your risk of developing a lifestyle-related chronic disease such as type 2 diabetes, heart disease and some cancers? A waist measurement of over 80 cm for women and 94 cm for men puts you at risk. How do you measure up? (*Swap It, Don’t Stop It* brochure).

The use of Eric’s conversational tone about epidemiological risk throughout the campaign normalises the reductionist, biomedical, deficit-based approach.

The *Obesity Technical Report* cited evidence from research that supported interventions focused on encouraging a greater intake of healthy foods rather than encouraging a decreased intake of unhealthy foods (p. 22). Robison and Carrier take the argument further and contend that modern health promotion should be focused on so much ‘more than broccoli, jogging, and bottled water’ [57]. Prosecuting this argument for a broader strengths-based approach to health promotion, Buchanan noted that:

A “good” health education program should help people articulate good reasons for deciding how they want to live, whereby living courageously to correct social injustices is duly recognized as a more noble and worthy way of living than becoming some sort of physical fitness buff. However difficult the task, the future of our profession depends on convincing funders that there are better ways to spend their money. All the rest is idle distraction [684] (p. 308).

The argument for a positive approach to health promotion addressing the social determinants of health had its roots in the Ottawa Charter for Health Promotion, which highlighted the need for a positive construction of health and wellbeing, and for health promotion to incorporate more than a just a focus on healthy lifestyles [30]. Critiques of the deficit-based approach have appeared in the professional literature [34, 57, 63]. Even the positive-on-the-surface healthy lifestyle discourse has received
criticism for its limited approach, by virtue of its connection with the biomedical and
behavioural health paradigms. In lamenting the lack of practical commitment in
Canada to the Ottawa Charter for Health Promotion and the social determinants of
health agenda, Raphael blames:

(G)overnment spending, media attention, and health sector activities lavished on ‘lifestyle’
approaches to health promotion and the emergence of the ‘obesity epidemic’ as a focus of
public, media, and health sector attention (p. 483).

The sex- and gender-based analysis of women’s health initiatives in Canada [535]
found that ‘the healthy living discourse is neither simple nor, ultimately, a solution’
and that it ‘poses considerable risk to health and wellbeing’ (p. 46). The healthy living
discourse was criticised for resulting in individual blaming and therefore individual-
centered initiatives, rather than initiatives that address structural, systemic and
environmental barriers to nutrition and physical activity.

The Change4Life healthy lifestyle program in the UK began life as an obesity
prevention program, but Piggin and Lee identified that in the journey from background
documents to public health initiative, obesity was reframed and rendered invisible
[536]. The removal of all references to weight or obesity was designed to increase
motivation for change, suggesting that the program developers understood that
negatively focused initiatives were not as motivating or acceptable to the community.

In recent years research has turned to examining the reactions of people in the
community to positive and negative focused weight-related public health initiatives.
Puhl and colleagues [683] tested a range of messages from obesity prevention social
marketing campaigns from around the English-speaking world, including Measure Up
and other campaigns from Australia, in a nationally representative sample of 1014
adults in the USA. Messages that elicited the most favourable and the least negative
reactions focused on positive behaviours, such as ‘Eat well. Move more. Live longer.’,
‘Eat a variety of colorful fruits and vegetables every day’ and ‘Park farther from your
destination and walk’. Messages that elicited the least favourable and the most
negative reactions focused on negative outcomes, such as ‘Childhood obesity is child abuse’, ‘Too much screen time, too much kid’, ‘Being fat takes the fun out of being a kid’, and ‘Fat kids become fat adults’ (p. 4).

Negatively framed messages that implied personal responsibility and blame for excess weight, including the main message from Measure Up ‘The more you gain, the more you have to lose’ were rated more negatively than messages that did not imply responsibility and blame. In a finding of particular relevance to the social marketing campaigns examined in this study, the messages that were perceived to be most positive and motivating did not mention obesity at all. The authors suggested that perhaps ‘people may be more amenable to improving their lifestyle behaviors when the emphasis is on health, rather than body weight per se’ (p. 6).

Thomas et al. [473] sought to understand the perspectives, attitudes and opinions of obese adults about specific weight-related public health initiatives. Study participants supported the public health initiatives with a positive approach to improving lifestyles rather than a negative focus on weight loss. Participants did not support the initiatives with a negative focus on links between obesity and health conditions, or those that ‘created a ‘fat phobic' environment by emotively equating 'thinness' with good health and wellbeing’... or reinforced that "the definition of obesity automatically equals unhealthy”... or "created a ‘fat phobic' environment by emotively equating 'thinness' with good health and wellbeing’... or reinforced that "the definition of obesity automatically equals unhealthy” (p. 4). Participants described such public health initiatives as "degrading" and "belittling" and making them feel "depressed" and "hopeless" (p. 4). In quoting from study participants, the authors also highlighted the effect on children of the negative approach:

“You can’t explain to a six or even seven or eight year old, well Mum's not going to die because the belts not around my waist. My girlfriend's kid sat there and cried because she thought her Mum was going to die because the tape measure wouldn’t go around her waist. To my way of thinking scare tactics don’t work.” (p. 4)

Piggin and Lee [536] noted that the United Kingdom’s Change4Life social marketing campaign focused on enhancing positive behaviours of healthy eating and physical
activity and omitted the word ‘obesity’ from program materials. However the name Change4Life implies that there is a change needed away from unhealthy behaviours, and so the overall approach is still deficit-based.

**Summary**

This section has presented and discussed the extent to which the health promotion values and principles focused on the program basis were evident in the documents. Through boundary critique I identified a strongly negative, deficit-based approach. There was also some evidence of a positive strengths-based approach but that this approach was significantly diluted by the context of the biomedical, behavioural, individualist discourses. Through reflective practice using the health promotion values and principles continuum as a critical questioning tool, I determined that the deficit-based approach was dominant, and that the weight-centred public health initiatives were therefore somewhat consistent with traditional health promotion.

**8.1.3 Nature of strategies**

**Description**

These values and principles are focused on the nature of strategies proposed or implemented in the weight-related public health initiatives. The health promotion values and principles continuum identifies public health strategies that are enabling and empowering for people as consistent with modern health promotion. Public health strategies that are disabling and disempowering are consistent with traditional health promotion.

Enabling and empowering strategies have been a central plank of modern health promotion since the Ottawa Charter for Health Promotion defined health promotion as the process of enabling people to increase control over the determinants of health [30]. Enabling means simply to be able to do something. Empowering however, means to develop the power necessary to do something. One can be enabled to do something by virtue of a barrier being removed or access being provided. Being empowered however requires having the power to remove the barrier oneself, or to organise
Empowering health promotion strategies are strategies that embed power over the change **processes** within the individual, group or community, not just make something possible by virtue of external changes.

From a health promotion perspective, in order to be empowered, people need to be actively involved in all stages of the health promotion process, from issue formulation and framing, to developing and performing the solutions and actions to address the issue [685]. This value is therefore closely related to the **use of power**, which is examined in the next section, and **people’s participation in the change process**, which is examined in the section after that. In this section however, the discourse specifically about enabling and empowering is examined.

**Result and discussion**

Through the analysis I identified an ‘enabling but not empowering’ discourse and the concurrent presence of ‘militarist target-intervention’ discourse related to the nature of strategies.

There was some evidence of a very weak empowerment discourse in some of the documents, created primarily through the **textual practice** of lexical choice whereby the term ‘empower’ was used. Although the term empower was present in some of the documents, the term empowerment was **lexically absent** from all documents. The term empower was also **lexically absent** from the *Obesity Technical Report, Weighing it up* and the *Government response, Taking Preventative Action*, and the social marketing campaigns. Where the term empower was used, it was not used in a manner consistent with the description above.

In Raphael’s analysis of the use of social determinants of health discourse, he identified that the way the term ‘social determinants of health’ was interpreted and applied varied widely [626]. Raphael found that in many cases the actions taken in the name of the social determinants of health agenda would have been unrecognisable as such, were it not for the inclusion of the term to describe them. A similar issue was
identified with the social determinants of health discourse evident in these documents, as described in the section above. In examining the documents for evidence of discourse relating to empowerment, it was apparent that the same issue was at play.

The way the term empower was used in the documents in this study suggested that the interpretation of the term was considerably different to that intended by health promotion scholars [686, 687] and the World Health Organization position papers and declarations from the Ottawa Charter onwards [30, 597, 622, 688]. Instead, empower was used as a synonym of enable and the two terms were used interchangeably to refer to the ‘need’ to empower/enable individuals to make the choice to adopt healthy eating and physical activity behaviours, through action at the individual level and/or the environmental level. For example:

Choosing to eat healthy food, being physically active, limiting alcohol consumption and not smoking requires people to be empowered to make these choices (*Roadmap* p. 58).

To be effective, the approach needs to focus on engaging individuals, families and communities to make changes to their lives that will enable them to improve their nutrition and increase physical activity levels (*Roadmap* p. 92).

Changes are needed in our environments, transport systems, food supply, workplaces, schools, local communities and healthcare systems to make the healthy choices the easy choices, and to empower and motivate individuals and families to lead healthier lives (*Roadmap* p. 91).

The empowerment discourse was therefore more appropriately categorised as enabling discourse. The enabling discourse was characterised by the complete absence of any reference to empowerment (as opposed to empower/enable), and absence of inclusion of empowerment processes within the health promotion strategies proposed or implemented.

Complementary to the absence of any real individual or community level empowerment discourse in the documents was the strong presence of an intervention
discourse, characterised by the overlexicalisation of the word connotation terms ‘intervention’ and ‘target’. Although these terms are extremely common in the health promotion field, their use is indicative of a discourse that is contrary to empowerment discourse.

The term ‘intervention’ is a noun that comes from the Latin ‘intervenire’, meaning to come between or interrupt. In modern English it is defined as the action or process of intervening or coming between so as to prevent or alter a result or course of events; or any interference in the affairs of others [689]. Synonyms for intervention include interference, interposition and intercession. Synonyms for intervene include interfere, interpose and meddle.

The term ‘target’ is used as both a noun and a verb and comes from the Middle English word ‘targe’ or shield, and originally meant object to be aimed at in shooting. In modern English, as a noun, a target is defined as a person, object, or place selected as the aim of an attack; a mark or point at which one fires or aims; an objective or result towards which efforts are directed; a person or thing against whom criticism or abuse is directed. As a verb, to target is defined as to select as an object of attention or attack; or to aim or direct something [690].

Both target and intervention were used repeatedly throughout all of the documents analysed, except for the social marketing campaign materials designed for the public. For example in the Obesity Technical Report, the term target was used 102 times in the 128 page document, or an average of 0.8 times per page, and the term intervention was used 147 times, an average of 1.1 times per page. In the Roadmap, the term target was used 190 times, and the term intervention was used 172 times. Although some of the uses of the term target refer to normative targets for change, most of them refer to targeting people and behaviours. As described in the section above on motivation for health, these terms are characteristic of the militarist discourse evident in the documents, and the repetition of their use served as a constant reinforcement of this discourse.
The health promotion strategies in the documents were explicitly described as interventions that targeted people, particularly people considered ‘high risk’ which were usually characterised as ‘disadvantaged’. For example:

Implement comprehensive community based interventions that encourage and support healthy lifestyles among all population groups, particularly in areas of disadvantage and among groups at high risk of unhealthy weight gain (Obesity Technical Report p. 2).

High-risk groups: A focus on the population as a whole will need to be complemented by targeted approaches for groups with disproportionately high rates of overweight and obesity, including Aboriginal and Torres Strait Islander people; people of different cultural backgrounds, particularly from Asia (India and China), Pacific Islands and the Middle East; and people of lower socioeconomic status. In addition, interventions aimed at children and pregnant women may have a significantly higher impact (Obesity Technical Report p. 18).

Tailoring key campaign messages and interventions to specific target audiences will enhance campaign effectiveness (Obesity Technical Report p. 32).

The military discourse characterised by the overlexicalisation of the terms target and intervention to refer to people and processes suggested the very opposite of empowerment as a process to address oppression, social injustice and inequity. Changing conditions to enable healthy behaviours is not necessarily empowering, but neither is it necessarily disempowering. However, to be targeted with an intervention is both disabling and disempowering.

In its original version as a health promotion process, empowerment was a community level process concerned with combating oppression and injustice [30]. It was the process by which people within a community worked together to increase the power they had over the events and circumstances that influenced their lives. The contrast between empowerment as a strategy for health promotion and other health promotion strategies and approaches has been highlighted by others in the health promotion field [685, 687, 691].
The concept of empowerment identified in the documents reflected a very different interpretation to that identified in the WHO documents and comparative critiques. Woodall et al. noted that the term empowerment has been used with ‘casual abandon’ with ‘many health promotion projects (seemingly regardless of their function) aiming to ‘empower’ the populations they are working with’ (p. 743). Almost twenty years ago scholars such as Rissel, Robertson and Minkler, to name just a few, identified issues relating to the various interpretations of the term empowerment in health promotion practice [692, 693]. In subsequent decades, the way empowerment as a health promotion process has been interpreted and applied has become diluted, moving from a macro community level view to a micro individual level view, resulting in the dominance of the discourse of empowering individuals to make behaviour change [686]. As Woodall et al. [686] noted, the individualist micro view of empowerment ‘is reflective of the broader policy environment in which neoliberal ideology has infiltrated western politics’ (p. 742-743). Similarly, Dixey has argued that the separation of individual and community empowerment is part of a Eurocentric empowerment discourse, and that individual empowerment has limited potency in sub-Saharan societies in which the concept of individual locus of control is subordinated to the concept of ‘ubuntu, a term with no English equivalent but which relates to the centrality of communal life and the realization of oneself through relationships with others’ [694] (p. 3). However the Nairobi Call to Action for Closing the Implementation Gap in Health Promotion, the declaration from the most recent WHO global health promotion conference in Nairobi in 2009, included ‘individual and community empowerment’ as one of the five urgent responsibilities for Governments and stakeholders [597].

The presence of community level empowerment discourse in WHO documents aside, Woodall et al. [686] argue that at best, the original health promotion concept of empowerment has simply been diluted, but at worst, has become lost completely from the field of health promotion. They suggest that:

This has been fuelled by the broader shift within health promotion which has increasingly focused its efforts toward a reductionist individualistic enterprise focused largely on behaviour...
change at an individual level, rather than a discipline that focuses on addressing social justice and wider power structures through social and structural change (p. 743).

The results of this analysis were consistent with their worst case scenario.

**Summary**
This section has presented and discussed the extent to which the health promotion values and principles focused on the nature of the health promotion strategies were evident in the documents. Through **boundary critique** I identified the lack of empowerment discourse, the presence of enabling discourse and the concurrent presence of militarist target-intervention discourse. The presence of the enabling discourse was countered by the absence of empowerment discourse, and significantly diluted by the hegemonic potentially disabling and disempowering target-intervention discourse. Through **reflective practice** using the health promotion values and principles continuum as a critical questioning tool, I determined that the disabling, disempowering strategies were dominant, and that the weight-centred public health initiatives were therefore somewhat consistent with **traditional health promotion**.

8.1.4 Distribution of power

**Description**
The distribution of power in the weight-related public health initiatives is the focus of these values and principles. It extends the concept of empowerment addressed in the section above to discussion of the way power is allocated or distributed globally, nationally and locally in the public health strategies. **Redistribution of power to support egalitarian power structures** is associated with **modern health promotion**. By contrast, **traditional health promotion** is characterised by the **concentration of power to support patriarchal power structures**.
Result and discussion

Through the analysis I identified the presence of competing discourses related to the distribution of power: ‘redistribution of power’ discourse, ‘concentration of power’ discourse, and the ‘militarist target-intervention’ discourse.

There was a relative lexical absence of overt references in the documents to the inherently political concept of the distribution of power related to public health strategies. Through the textual practices of word connotations, lexical choices and lexical absence, there were limited implicit or explicit references to the redistribution of power to support egalitarian power structures, and considerable implicit references relating to the concentration of power to support patriarchal power structures.

The only explicit reference to the redistribution of power evident in the documents was in reference to the recommendation from the WHO Commission on the Social Determinants of Health to ‘Tackle the inequitable distribution of power, money and resources ... globally, nationally and locally’ (Discussion paper p. ix, Roadmap p. 58). The Roadmap went on to explain that:

This means dealing with matters of governance; national economic priorities; trade arrangements; market deregulation and foreign direct investment; fiscal policy; and the degree to which policies, systems and processes are inclusive – each issue very much related to the CSDH recommendation of tackling the unequal distribution of power, money and resources.

Whilst some of these strategies dealt with the redistribution of power at global and national levels between governments and the market, they did not address the local redistribution of power, money and resources to communities. There were no further explicit references in any of the documents to the redistribution (or concentration) of power at any level. There were however numerous implicit references to both the redistribution and concentration of power discourses.
The strategic directions in the *Roadmap* included two directions that implied a very weak or low level invocation of the redistribution of power discourse. Strategic direction one in the *Roadmap* was ‘Shared responsibility’, with communities being listed among other sectors of society as being responsible for prevention actions. ‘Effective prevention programs will depend on the participation of all Australian communities’ (p. 41). The redistribution of power discourse evident in this text was regarded as very low level, as neither sharing responsibility nor participation could be interpreted as implying shared rights or redistribution of power.

Strategic direction three in the *Roadmap* was ‘Engage communities – act and engage with people where they live, work and play. Inform, enable and support people to make healthy choices’ (p. 40). The redistribution of power discourse evident in this strategic direction was low level, as neither engaging with people nor informing, enabling and supporting them could be regarded as implying the redistributing or sharing of power with communities. Rather, the agencies doing the informing, enabling and supporting retain the power required to carry out these activities.

Turning to the specific action areas and actions in the *National Preventative Health Strategy*, the lexical choices and word connotations in the implementation plan for obesity also suggested a relatively low level redistribution of power discourse, and a concurrent moderate level concentration of power discourse. One of the components of the redistribution of power discourse is the concept of community control or community ownership over public health initiatives. The *Roadmap* implementation plan for obesity included 10 key action areas and 27 specific actions for obesity prevention. For each action a lead agency and partners were nominated, a staged implementation plan was described, and evaluation measures were provided. Of the 10 key action areas, only one included actions with a non-Government or community organisation nominated as the lead agency. As this was the only action area to include a community organisation in a leadership role, this is where I will concentrate my analysis.
‘Key action area 9: Reduce obesity prevalence and burden in Indigenous communities and contribute to ‘Close the Gap’’ (Roadmap p. 153) included three actions; the first two of which listed a community-controlled health organisation as the lead agency and the third made reference to Indigenous communities in the implementation plan.

Key action area 9.1 was ‘Fund, implement and promote multicomponent community-based programs in Indigenous communities’ (Roadmap p. 153). The Aboriginal Community Controlled Health Services was nominated as the lead agency for this action, and partners identified as the National Aboriginal Community Controlled Health Organisation (NACCHO); NACCHO affiliates; Australian, state and territory governments; Menzies School of Health Research; Cooperative Research Centre for Aboriginal Health; other relevant academic institutions and public health groups. The nomination of Aboriginal organisations that are explicitly community controlled as the lead agency and major partners indicated that these organisations would be given the power to operate community-based programs in Indigenous communities. Through the detailed list of expectations, the Roadmap conveyed the intention to give community controlled Indigenous organisations the power to identify the most appropriate sites for community based initiatives, develop, fund, implement, promote, monitor and evaluate initiatives that address community needs, and extend the initiatives across the country. This was evidence of the redistribution of power discourse in operation. But the longer term expectations together with the evaluation measures suggested a different story about the distribution of power and ownership of initiatives.

As discussed earlier in the previous section on health promotion strategies, the use of military discourse, and in particular terms such as target and intervention to describe public health strategies undermines the notion of community empowerment. If Indigenous communities, through the Indigenous organisations nominated as the lead agency and partners, were to truly be given the power to assess needs and develop, fund, implement, promote, monitor and evaluate initiatives to address those needs, then who is doing the targeting of their communities (and not-targeting others) with
interventions that are predetermined to focus on changing knowledge, attitudes, awareness, intention and behaviour? It is not possible to target one’s own community if an initiative is truly owned by the community. It is simply oxymoronic to talk about communities targeting their own communities with community owned and controlled interventions. If the power to undertake all of the actions listed was to truly be redistributed to the Indigenous communities, then the concentration of power to support the patriarchal power structures that are manifested as the military discourse of targeting interventions would be recognised as patently contradictory to the redistribution of power discourse. The fact that such extreme dissonance was not recognised suggests the dominance of the concentration of power discourse to support existing patriarchal power structures.

‘Action 9.2: Strengthen antenatal, maternal and child health systems for Indigenous communities’ (Roadmap p. 154) was the only other action in the Roadmap to nominate a non-Government or community organisation as the lead agency. As with action 9.1, the Aboriginal Community Controlled Health Services was nominated as the lead agency for this action, and partners identified as the National Aboriginal Community Controlled Health Organisation (NACCHO); NACCHO affiliates; and a range of medical, maternity and breastfeeding related organisations such as the Colleges of General Practitioners, Rural and Remote Practice and Midwives, the Australian Breastfeeding Association and the Maternity Coalition. The implementation actions included developing and implementing evidence strategies to strengthen these specific health services of Indigenous communities. The evaluation indicators included rates of health behaviours such as breastfeeding and presentation for antenatal care, and health status indicators such as the proportion of children with low birth weight and underweight in early childhood. Neither the actions nor the evaluation measures indicated that power would be redistributed to Indigenous communities or even to Indigenous organisations to facilitate this action. This suggested that the power would remain concentrated within existing health service structures and organisations. However this does not necessarily imply that such structures are automatically patriarchal. Indeed the NACCHO affiliates providing health services on the ground are
founded on the principle of community control and are owned and run by Aboriginal communities, although some argue that they are underfunded given the inequitable distribution of Indigenous health [695].

‘Action 9.3: Fund, implement and promote effective and relevant strategies and programs to address specific issues experienced by people in Indigenous communities such as lack of access to affordable high-quality fresh food’ (Roadmap p. 154) nominated the Australian Government as the lead agency. Partners were listed as: state/territory governments; social, welfare and community support organisations (such as the Australian Council on Social Services, public health and health promotion organisations); physical activity providers (e.g. gyms, swimming and tennis facilities) and cycling organisations. Two implementation actions were described. The first was to ensure that all programs implemented under the (National Preventative Health) strategy specifically considered Indigenous communities, and in particular the social marketing campaigns, community-based and school programs. Strategies to increase access to fresh food were nominated as particularly relevant. The second action was that additional specific strategies would be developed and implemented in consultation with Indigenous communities. Evaluation indicators included prevalence of overweight and obesity, physical activity levels and nutrition behaviours among Indigenous people.

This action area had a significant lack of clarity, but despite this the lack of redistribution of power to Indigenous communities was very clear. What was not clear was how this action, which focused on funding, implementing and promoting programs to address specific issues experienced by people in Indigenous communities was meant to be substantively different to Action 9.1, which focused on funding, implementing and promoting multi-component community based programs in Indigenous communities. In analysing the action, it appeared as though the difference was that 9.1 was focused on community based programs and 9.3 was focused on community initiatives that were external to Indigenous communities, but would nonetheless impact on communities. The complete lack of Indigenous organisations in
the leadership or partnership roles for 9.3 supported this interpretation, and suggested that Indigenous communities and organisations had no role to play in addressing these other issues. This indicated that the power to implement this action would be located outside the Indigenous community.

However the framing of the implementation strategies suggested something different. These strategies suggested that the intention of this action was to ensure that all parts of the National Preventative Health Strategy implementation plan for obesity included an explicit focus on Indigenous people and communities, and that Indigenous communities would be consulted in this process. This suggested that the Indigenous community would be given the power to ‘be consulted’ but not to control the process. Thus the action, lead agency and partners suggested that Indigenous people would have no power, and the implementation strategies suggested that they would have some power, albeit limited to the minimal degree of power that comes from being consulted.

Another source of confusion regarding power related to the role of nominated partners such as social, welfare and community support organisations, gyms, swimming, tennis facilities and cycling organisations. Given the particular emphasis on access to fresh food, how would these nominated partners have the power to increase access to affordable high-quality fresh food in Indigenous communities? Why would these organisations be better placed to assume that role than Indigenous organisations and communities?

As discussed in this section both of the actions in the National Preventative Health Strategy implementation plan for obesity that listed a lead agent that was not a government department or organisation were in the key action area relating to Indigenous communities. None of the other actions in the implementation plan for obesity listed a community group or community organisation as the lead agent. Furthermore, community groups and organisations were included in lists of multiple partners in just five of the 27 actions. One of these actions was the funding of national
social marketing campaigns for which ‘local communities’ were listed as a partner. However it is difficult to see what role local communities might play in the implementation of this action. Even in action area 3.3: ‘Fund, implement and promote comprehensive community-based interventions’ (p. 149), ‘community agencies’ were listed as partners after the National Prevention Agency (later renamed the National Preventative Health Agency), Australian Local Government Association and non-Government organisations. The two major strategies in this action were the establishment of a national series of comprehensive five-year intervention trials; and develop strategies to mobile and engage local communities. Neither of these strategies suggests a redistribution of power to communities to establish community control or ownership. The only strong discourse on the redistribution of power related to the power that will be given to the National Preventative Health Agency.

The National Preventative Health Agency, the ‘first national agency dedicated to preventative health’ (Taking Preventative Action p. 7), was projected to become one of the most powerful players in ‘preventative health’. The textual practice of metaphor (or more precisely, mixed metaphor) was used to describe the considerable power the Agency will have to ‘lay the foundations for healthy behaviours in the daily lives of Australians’ (Measure Up website) by ‘bring(ing) together the best expertise in the country’ (Taking Preventative Action p. 7) in order to ‘drive the changes required to turn the tide on the escalating burden’ (Taking Preventative Action p. 7) from chronic diseases (Italics added).

The ‘best expertise in the country’ however did not include people in the community with expertise in the lived experience of health and wellbeing. Rather the Agency will metaphorically ‘harness the efforts’ of ‘state and territory governments, public health organisations, advocates and academics’ (Italics added) (Taking Preventative Action p. 8). There was no indication that power and decision-making regarding the National Preventative Health Agency’s programming would be devolved to or even shared with the community.
Addressing inequity and improving health in a community or population require attention to macro level political-structural issues such as distribution of power [34, 63, 685, 691, 692]. The WHO Commission on the Social Determinants of Health called for the redistribution of power at global, national and local levels [33] and Baum has proposed that responding to the Commission’s recommendations is within the jurisdiction of health promotion [63]. The analysis of the documents in this study suggested that there was a very low level discourse about the redistribution of power generally, and a moderate level discourse with respect to Indigenous Australian communities, and in particular, Aboriginal communities. As discussed in the section above on the social determinants of health, the numerous discourses identified in the documents focused on health systems, health behaviours, material living conditions, differential distribution of health status and behaviours according to group membership, and the impact of public policy decisions by governments and other societal institutions. Consistent with the levels of social determinants discourse, the redistribution of power discourse operated at multiple, but generally low levels.

At its most basic, the redistribution of power discourse focused on government engaging with communities in order to inform, educate and enable healthy choices. At the next level the discourse focused on consultation with Indigenous communities in the implementation of strategies, particularly social marketing campaigns, community-based and school programs. At the next level the discourse focused on shared responsibility between Government, numerous other sectors, and the community for actions addressing the obesity issue. However along with this responsibility came no rights or power handover. The next level of redistribution of power discourse focused on giving Indigenous communities, through existing Aboriginal organisations, the power to identify the most appropriate sites for community based initiatives, develop, fund, implement, promote, monitor and evaluate initiatives that address community needs, and extend the initiatives across the country. The term power was not used explicitly, and the level of this discourse was tempered by the militarist target-intervention discourse. The redistribution of power to Indigenous communities is
consistent with the self-determination agenda for Indigenous communities. According to Kowal [695]:

> In Australia, “self-determination” has been the dominant trope for expressing the aspirations of Aboriginal and Torres Strait Islanders since the late 1960s. Self-determination was a reaction to the assimilation era (roughly 1950–70), when Indigenous collective life was judged to have been so damaged as to be irreparable, with the only humane course of action in the absorption of Indigenous people into “mainstream” society. By the late 1960s, intellectuals … were arguing that Indigenous cultural life remained vital and should be encouraged. Rather than Indigenous people assimilating to Western values, the proponents of self-determination argued that Australian legal and administrative structures should accommodate Indigenous forms of social life. “Cultural appropriateness” became a key mantra of activists and politicians alike, and the “Aboriginal corporation” was created to interact with government and service providers (p. 338-339).

Redistributing power to communities is required if they are to be empowered to make decisions about all stages of the health promotion process, from issue formulation and framing, to developing and performing the solutions and actions to address the issue – in other words to own the initiatives [685].

**Summary**

This section has presented and discussed the extent to which the health promotion values and principles focused on the distribution of power were evident in the documents. Through **boundary critique** I identified that overall there was a distinct absence of discourse relating to the distribution of power. This discourse void reinforces the concentration of power where it currently lies. In the small pockets where the redistribution of power discourse was evident, I identified three relatively low levels of discourse. A fourth higher level of redistribution of power discourse was evident in discussion regarding public health initiatives with Indigenous communities. However this was significantly diluted by the concurrent presence of the concentration of power discourse and the militarist target-intervention discourse. Through **reflective practice** using the health promotion values and principles continuum as a critical questioning tool, I determined that overall, there was a **concentration of power**, and
that the weight-centred public health initiatives were therefore somewhat consistent with traditional health promotion.

This concludes the section on the philosophical health promotion values and principles related to what public health strategies are proposed and currently implemented. The section addressed the values and principles in the health promotion values and principles continuum focused on who to work with (determined by equity or whole population), the program basis (strengths-based or deficit-based), the nature of strategies (enabling and empowering or disabling and disempowering), and the distribution of power (redistribution of power or concentration of power).

8.2 Ethical values and principles

This section focuses on the ethical health promotion values and principles related to what public health strategies are proposed and currently implemented in the weight-related public health initiatives. Ethical values and principles in the health promotion values and principles continuum focus on participation in the change process, personal autonomy, beneficence, non-maleficence and basis for practice.

8.2.1 Participation in change process

Description

These values and principles are concerned with the level or degree of participation in the weight-related public health initiatives. Ensuring the active participation of people most impacted by health issues in public health strategies designed to address those issues is consistent with modern health promotion. At its optimal level, people impacted by the issue are involved in every stage of the change process, from needs assessment, to planning, implementation and evaluation. Lack of involvement of people impacted by health issues in the public health strategies is consistent with traditional health promotion. At the minimum level, people impacted by the issue are passive recipients of external decisions related to all stages of the process.
**Result and discussion**

Through the analysis I identified the dominance of the ‘tokenistic participation’ discourse.

Many of the documents analysed in this study resulted from two processes that involved community participation: the *Healthiest Country* process and the Parliamentary Inquiry into Obesity process. The Inquiry report *Weighing it up* described the complementary roles of the two processes:

>(T)here are a number of concurrent government processes which aim to find better solutions to chronic health problems, including obesity. The Committee does not seek to replicate these processes, but rather to complement them. The most important complementary process to our inquiry is that of the Taskforce. However, it is necessary to note upfront that the role of the Committee is very different to that of the Taskforce. The Taskforce is a panel of experts that have been asked to develop a technical national preventative health strategy. In addition, their focus is on three areas; alcohol, tobacco and obesity; and the burden of disease each cause. This Committee has a less technical focus. Our public hearings have been a forum for members of the community – experts and citizens alike – to meet with Members of Parliament to discuss their knowledge and experiences in the context of taking the debate(s) forward where possible. These different approaches will result in different, yet complementary reports (*Weighing it up* p. 8).

Both processes garnered significant numbers of written submissions and verbal presentations, many of which were from community organisations and individuals. However analysing the actual submissions to these processes was outside the scope of this study, and as such it was not possible to determine the extent to which the range and nature of views represented in the submissions were reflected in the final documents. Nonetheless, there did seem to be a genuine attempt to facilitate community participation in both processes.

In the section on the distribution of power above, I identified that the highest level of proposed redistribution of power evident in the documents related to one of the actions in the *National Preventative Health Strategy* implementation plan for obesity
that was focused on Indigenous communities. The action, lead agency and implementation strategies all suggested that Indigenous communities would be given the power to control every stage of the health promotion process, from needs assessment, to planning, implementation and evaluation. If this power were indeed to be given to Indigenous communities, then people in those communities could become active participants in the entire change process. This is the ideal represented by the modern health promotion end of the health promotion values and principles continuum. The intention to provide Indigenous communities with this level of participation was implied by this section of text, but was not overtly stated. However the use of the militarist target-intervention discourse within the same text suggested that perhaps this power may not be completely redistributed to Indigenous communities. At worst this would result in the people in Indigenous communities being passive recipients of initiatives developed elsewhere for implementation in their communities. This scenario however was unlikely, given the repeated references to the Indigenous organisations as being responsible for this action. The level of active participation by the Indigenous communities proposed in these initiatives was therefore likely to be intended as significantly more active than passive.

Weighing it up included a separate section describing evidence from the Inquiry on community ownership. Much of this evidence reflected the active participation discourse. For example:

   Evidence to the Committee showed that communities are more likely to succeed in tackling obesity and related issues if the community has ownership of the program. The Committee heard that community ownership can be created and supported in a number of ways, including:
   
   •  engaging local interest and getting people actively involved;
   •  supporting the community to find local solutions for local problems;
   •  encouraging local leaders and champions; and
   •  fostering grassroots movements (Weighing it up p. 150-151).
The document then described a range of projects that were owned by the community or sections of the community such as schools. For example:

On a smaller scale, but no less important, was the engagement of groups in localised communities such as schools. The Committee learnt that supporting community ownership in this type of setting produced some extraordinary results. The Committee visited the Dubbo College Delroy Campus where students proudly showed off their school canteen. Teachers told the Committee they obtained funding to promote a healthy eating campaign and students were involved in growing vegetables and cooking dishes in the canteen. The Year 7 students had revamped the canteen, named it the ‘Snak-Shak’ and repainted it in vivid colours depicting a tropical theme. Allowing the students to run with their ideas and produce such a tangible result gave them a stake in the changes and helped reinforce the messages about healthy eating (Weighing it up p. 152).

Other case studies noted community involvement in the development and implementation of projects that had been initiated by external decision makers. In one case study, although university had initiated the project:

Professor Swinburn from Deakin University explained that agencies and stakeholders in the community designed and planned the program according to local needs. He called this a ‘community capacity building approach’ and told the Committee capacity building started by encouraging the community to find solutions not by imposing solutions from outside:

The Colac project did not say: ‘Here’s a bunch of programs that we worked out how to do sitting in the university. Let’s take them down to Colac and see if they work.’ It was not that at all. It was: ‘How do you give some money and the support to a community to work out its own solutions?’ (Weighing it up p. 153).

Despite the range of submissions on community ownership, including this one from an expert of high status as identified through the textual practice of using honourifics, and the recognition that ‘communities are more likely to succeed in tackling obesity and related issues if the community has ownership of the program’, the Weighing it up report included no recommendations addressing community ownership. The only recommendation to even mention community initiatives was Recommendation 19:
The Committee recommends that the Federal Government continue to support initiatives such as community garden projects, cooking classes and the Stephanie Alexander Kitchen Garden Program, in order to teach children and adults about:

- The benefits of growing and eating fresh fruit and vegetables; and
- Preparing and enjoying healthy and nutritious meals (*Weighing it up* p. xvii).

The active participation discourse that was evident in the *Weighing it up* report was suppressed in its recommendations, and in turn, completely absent from the Government response to *Weighing it up*. The Government made no reference at all to community ownership, nor did it refer to other active participation concepts such as community control, participation, working with or engagement with communities. The only references to engagement in the Government response related to engaging with the food industry and professional associations.

Elsewhere in the documents however, the level of discourse regarding participation in the change process did exist, but at a lower level than for actions with Indigenous communities in the *Roadmap* and the community ownership section in *Weighing it up*. This lower level of participation discourse was characterised by lexical choices such as work together, involvement and engagement. These terms were applied at all levels from the national down to the individual level. At the national level, participation discourse was focused on the generic concept of working together, rather than referring to specific strategies. For example:

> It will be important to work together as a nation to solve this serious problem. Individuals and families, communities, health services, non government organisations, industry and governments will need to all be actively engaged and to agree on priorities for action to enable overweight and obesity to be tackled in Australia (*Obesity Technical Report* p. 1).

Central to the success of these (research) initiatives is the involvement of key research agencies and institutions (NHMRC, ARC, CSIRO, AIHW), various levels of government, other sectors (for example, universities, private NGOs and industry) and communities (*Roadmap* p. 75).
Any strategy to successfully combat the growing problem of obesity will need to include community involvement and community centred programs/projects (Weighing it up p. 135).

At the community level, participation discourse was more focused on working with or engaging participants in specific setting or activities, rather than the planning, implementation and evaluation of those activities as part of a broader health promotion initiative. One of the strategic directions in the National Preventative Health Strategy was to engage communities. This was described as designing interventions for specific settings:

Engage communities: A number of key settings provide logical places for prevention activity. Interventions are intentionally designed for local settings where people live, work and play – in homes and throughout communities, in childcare, through maternal and childcare services, schools, universities and TAFEs, and importantly in the workplace.

The community was identified as a setting, and the Strategy included the introduction of community-based intervention trials:

... to identify what works in prevention (particularly in relation to obesity) at the local level and which combination of interventions will improve health outcomes, especially in disadvantaged communities. Trials will require the whole community to work together.

Participation discourse also focused on enhancing participation of people in specific activities, particularly in Weighing it up. The repeated use of honourifics identified these submissions as the views of high status experts. For example:

Associate Professor O’Dea spoke about a school she worked with in Sydney that had a lot of Muslim girls that were veiled, who would not do physical education (PE), sport or swimming. Associate Professor O’Dea told the Committee she had worked with the school and had designed a PE uniform that was veiled and covered the girls, and that they were able to swim in. A time was set aside for the girls to ‘swim, splash and giggle in privacy’. Associate Professor O’Dea said that everyone in the community was happy with this solution - the imam, the parents, teachers and children (Weighing it up p. 143).
Both the ASC (Australian Sports Commission) and Associate Professor O’Dea spoke about the importance of developing programs that make people feel more comfortable about participating, that people prefer choices and control over the sort of activity they do, and that the activities should cater to different abilities. People are then more likely to enjoy the exercise, rather than perceive it as a chore and/or too hard for them (*Weighing it up* p. 143).

At the Committee’s Perth hearing, a doctor with many years experience of working in remote areas with indigenous communities, Dr Jeffries Stokes, Chief Investigator of the Western Desert Kidney Health Project, pointed out to the Committee that a lot of Aboriginal people in an area she had lived in, Mount Margaret, ‘could not see the point in wasting energy with meaningless exercise [such as walking groups], for exercise’s sake’, especially in a hot harsh climate where one might encounter wild dogs and snakes on a stroll. However, after consultation with community members, activities like dance, drumming, yoga and even gardening (not usually considered a form of exercise) had been instigated and proven very popular:

> We went for things that people did not think of as exercise... They were much more fun and that was more successful (*Weighing it up* p. 144).

In addition to the presence of varying levels of participation discourse, the documents reflected an implied passive recipient discourse through the description and proposal of strategies that do not entail participation, engagement or working with people in the community. Strategies in which people are passive recipients include social marketing campaigns and policy and regulation. As there was significant emphasis on both of these strategies across the documents, there was therefore a strongly implied passive recipient discourse.

Participation of the community in all aspects of health promotion, from identifying needs, to setting priorities, and planning, implementing and evaluating health promotion solutions to address needs, is one of the core values of health promotion. This is espoused in the Ottawa Charter [30] and subsequent WHO health promotion charters and declarations [597, 622, 696], and reiterated in the Galway Consensus Statement on domains of core competency, standards and quality assurance for building global capacity in health promotion [44, 610, 697].
Over 40 years ago Sherry Arnstein proposed a ladder of citizen participation to describe levels of citizen participation in programs that affect their lives [698]. Despite its age and the huge increase in literature on citizen participation that has emerged since then, the ladder still provides a useful metaphor for differentiating between levels of participation in programs. According to Lithgow [699], the ladder retains its salience because the concepts:

... apply to any hierarchical society but are still mostly unknown, unacknowledged or ignored by many people around the world. Most distressing is that even people who have the job of representing citizens views seem largely unaware, or even dismissive of these principles. Many planners, architects, politicians, bosses, project leaders and power-holder still dress all variety of manipulations up as 'participation in the process', 'citizen consultation' and other shades of technobabble (website).

The ladder includes eight levels groups into three categories. The lowest category of participation is actually non-participation, and includes manipulation at rung one and therapy at rung two. The middle category of participation is tokenism, and includes informing at rung three, consultation at rung four, and placation at rung five. The highest category of participation is citizen power, and includes partnership at rung six, delegated power at rung seven and citizen control at rung eight [698].

Arnstein contends that at the lowest level, government, non-Government organisations and corporations can contrive phony forms of participation (what she calls non-participation) which are more about getting citizens to agree to a course of action that has already been predetermined. Alternately citizens are asked to participate in decision-making but the government (or other) representatives are actually trying to change the participants’ attitudes, values, beliefs or behaviours, in the guise of seeking their input or advice. Arnstein argues that both of these types of non/participation are worse than no participation at all. In the middle category are those legitimate but low level forms of participation, which can represent a good place to begin, but are tokenistic if this is where participation stops. The highest category is where Arnstein believes real and meaningful participation occurs. Partnerships
between public, private, non-Government and even community organisations are now commonplace. In their truest form, partnerships can result in a negotiated redistribution of power. If these partnerships are well maintained, they can result in benefits for all parties. Delegated power and citizen control, the highest levels of participation, require the redistribution of power and ultimately, final decision-making capacity [698]. The last three rungs of the ladder are the focus of the values and principles related to participation in governance and decision-making, which are included in the section further below on technical values and principles. However rather than artificially separating the results and discussion into two parts, I will present them here in totality and refer back to this section later.

The participation discourses evident in the documents reflected a number of the rungs in the citizen ladder of participation [698]. In analysing the proposed actions from the Healthiest Country Discussion paper (pre community consultation) and those in the Roadmap (post consultation), there was virtually no change. This suggested that the Healthiest Country consultation process may have been intended to get citizens to support a course of action that has already been predetermined. This was consistent with rung one on the consultation ladder. However without examining the actual submissions and determining whose voices and what views were silenced between the consultation process and the report production, it is difficult to make this assessment. The Parliamentary Inquiry did not produce a discussion paper prior to its consultation process, and included specific content from submissions and hearings, which served to legitimise the findings from the consultation process. This was more consistent with rung four on the participation ladder. Again, without examining the actual submissions it is difficult to make this assessment.

The multiple references to engagement, involvement and working with communities were reflective of the middle category of tokenism, involving informing, consultation and placation. The proposed strategies in the Roadmap that implied a redistribution of power to Indigenous communities were more consistent with the highest category in the participation ladder. Whether these strategies were more reflective of delegated
power or full community control was difficult to assess, but the strategies were almost certainly in the highest category.

The social marketing and regulation strategies involve no community participation in their development, implementation or evaluation, and so do not even make the first rung of the ladder of citizen participation.

Without discounting the ladder’s utility in assessing the participation levels of citizens and communities in decision-making, LeGates and Stout wonder if there are limits to such participation [700]. They highlight the potential for citizens to stall projects on the basis of concern for the environment or community, when in fact they may be simply protecting their own property values or privileged status. Another issue regarding participation that has emerged in recent times is the sheer number of citizen or community groups active within certain spheres, many of whom have conflicting views on issues, that to move forward with issues is almost impossible [700]. Although neither of these issues was evident in the documents analysed, that may have been due to the relatively low level of participation in the initiatives analysed. Ironically, greater commitment to active community participation may enhance the likelihood that these issues will arise.

**Summary**

This section has presented and discussed the extent to which the health promotion values and principles focused on participation in the change process were evident in the documents. Through boundary critique I identified that overall there was a wide range of discourses relating to participation, reflective of the highest rung on the ladder of citizen participation through to below the bottom rung of the ladder. Overall the bulk of the participation discourse, with a few exceptions at either end of the spectrum, fell within the middle category of tokenism, and included concepts such as engaging, involving, working with and in partnership with people and communities. Through reflective practice using the health promotion values and principles continuum as a critical questioning tool, I determined that overall, the participation in
the change process was moderately active, and that the weight-centred public health initiatives were therefore somewhat consistent with modern health promotion.

8.2.2 Personal autonomy

Description
Personal autonomy is the focus of these values and principles. Public health strategies that respect people’s right to autonomy and recognise that not all people will choose the same actions even in the same circumstances are consistent with modern health promotion. Public health strategies that restrict personal autonomy and are coercive or paternalistic are consistent with traditional health promotion. In these public health strategies, all people are expected to adopt the same actions or be subjected to the same conditions, irrespective of their own preferences, ostensibly for their own good or the overall good of the community.

Result and discussion
Through the analysis I identified a ‘choice’ discourse related to personal autonomy. In addition I identified a ‘coercive, paternalist’ discourse where respect for personal autonomy was effectively restricted.

Through the textual practice of lexical absence, there were no explicit references to autonomy, coercion or paternalism and no sign of ideological squaring between the two positions. However the textual practices of word connotations, overlexicalisation, and presupposition, together with the discursive practices of claims-making and hedging, created an explicit ‘choice’ discourse that oxymoronically conveyed respect for the right to autonomy and an implicit coercive and paternalist discourse that implied restricting autonomy.

Throughout the documents the textual practice of overlexicalisation was identified, whereby there was a vast number of references to the word connotation ‘healthy choices’; choices that needed public health initiatives to promote, encourage, enable and motivate people to take them. These ‘choices’ however were confined to specific
behaviours – healthy eating (encompassing quality and quantity) and physical activity. These behaviours were positioned as being the ‘right’ choice for people to make. For example:

It is individuals who will take up regular physical exercise and make the right food choices for themselves and their families (Roadmap p. 42).

Proposed public health strategies concentrated heavily on creating conditions in which the healthy choice would become the easy choice or even the only choice. For example:

They will contribute to ensuring that barriers to physical activity and healthy eating are removed and help to ensure that the healthy lifestyle choice becomes the easiest lifestyle choice (Weighing it up p. 83).

Our approach to urban design needs to shift and focus on providing environments where people can easily be active and make healthy eating choices. As Professor Baur stated at a public hearing:

...having walkable neighbourhoods and easy public transport and with healthy food options being available, it makes it much easier for individuals to make healthy choices (Weighing it up p. 107).

The private sector (for example, the food and alcohol industries, media, advertising, private health insurers, employers and the fitness and weight-loss industries) is particularly important to this Strategy, especially in relation to food, beverages and physical activity, and in assisting in making healthy choices the easy choices (Roadmap p. 43).

The discursive practice of hedging also created the illusion of choice in strategies such as fiscal policy, regulation, legislation. Both Weighing it up and the National Preventative Health Strategy implementation plan for obesity recommended the review of economic policies and the taxation system as a strategy for increasing the affordability and desirability of healthy choices and/or decreasing affordability and desirability of unhealthy choices.
For example:

Recommendation 10
The Committee recommends that the Treasurer and the Minister for Health and Ageing investigate the use of tax incentives to improve the affordability of fresh, healthy food and access to physical activity programs for all Australians, particularly those living in rural and remote areas (Weighing it up, p. xvi).

Action 1.4 Commission a review of economic policies and taxation systems, and develop methods for using taxation, grants, pricing incentives and/or subsidies to:

- Promote active living and greater levels of physical activity
- Decrease sedentary behaviour (Roadmap p. 141).

Action 2.2 Commission a review of economic policies and taxation systems, and develop methods for using taxation, grants, pricing, incentives and/or subsidies to:

- Promote the production of healthier food and beverage products, including reformulation of existing products
- Increase the consumption of healthier food and beverage products
- Decrease the production, promotion and consumption of unhealthy food and beverage products
- Promote healthy weight (Roadmap p. 143).

In strategies related to workplace health promotion, paternalist, coercive measures were proposed to ‘encourage’ workplaces to make the choice to implement programs. For example:

- Commission a review of potential legislative changes to promote take-up of workplace health programs
- Investigate the feasibility of rewarding employers – through grants or tax incentives – for achieving and sustaining benchmark risk factor profiles in their workforce (Roadmap p. 14).

In addition to restricting the autonomy of workplaces, such strategies, if implemented, would have significant potential to result in coercion of employees, in order for the employer to meet the legislative requirements or qualify for the incentives.
In areas such as marketing and advertising of energy rich, nutrient poor foods to children for example, there was a strong discourse of making the healthy choice the only choice. However in this case the choice belonged to the food and beverage and advertising industries, rather than individuals. These industries were given the choice to self-regulate, and if they would not or did not, then coercive tactics such as regulation would be implemented. The *National Preventative Health Strategy* described this process as ‘responsive regulation’. For example:

‘Responsive regulation’ has been extensively researched and is widely accepted in a range of non-health contexts; for example, in tax systems, in competition policy and in environmental regulation. It proposes a staged and potentially escalating approach to change, allowing for ‘soft’ mechanisms to be trialled, such as voluntary change, self-regulation, co-design, public reporting or positive incentives. Where appropriate, rather than opting immediately for harder mechanisms of regulation, enforcement or fiscal sanctions, the results are measured and assessed, with action to follow if necessary (*Roadmap* p. 57).

Recommendation 15
The Committee recommends that the Minister for Health and Ageing adopt a phased approach regarding regulations on the reformulation of food products. Industry should be encouraged to make changes through self-regulation but if industry fails to make concrete changes within a reasonable timeframe the Federal Government should consider regulations (*Weighing it up* p. xvi).

One of the strategies proposed to encourage and motivate people to make the healthy choice was the continuation and expansion of social marketing campaigns. For example:

4.1 Fund effective national social marketing campaigns to increase physical activity and healthy eating and reduce sedentary behaviour; and support people to make informed choices about their health:

- Ensure that funding is sustained and at a sufficient level to allow adequate reach and frequency
- Choose messages most likely to reduce prevalence in socially disadvantaged groups and provide extra reach to these groups (*Roadmap* p. 150).
Paternalism and coercion were evident in the social marketing campaigns *Measure Up* and *Swap It, Don’t Stop It*. In the mainstream campaigns (that is the non-Indigenous campaigns) the main male characters were seriously contemplating their big bellies and their new found knowledge about their increased risk of disease. They were led to believe that even small increases in waist measurement would result in heart disease, cancer and type two diabetes. They were prompted to reduce their waist measurement because they had ‘too much to live for’, and ‘the more you gain, the more you have to lose’. For both characters this was a direct reference to their children. This was designed to evoke feelings of personal and parental guilt in the intended ‘target audience’ for these campaigns – middle aged men and women – and motivate them into saving their own lives by reducing their waist measurement through changing their eating and physical activity behaviours.

A similar strategy was used in *Tomorrow People*, part of the *Measure Up* campaign that was focused on Aboriginal and Torres Strait Islander people. *Tomorrow People* was for ‘Aboriginal and Torres Strait Islander Australians who want to start eating a healthier diet and being more physically active – for their own health and for the health of their family’. Throughout the campaign materials a healthy lifestyle was positioned as important for a healthy life and for prevention of obesity and disease.

> While we can’t always stop ourselves from getting sick, if you eat healthy food, drink plenty of water and are physically active you be more likely to live a long and healthy life. Healthy eating and daily physical activity can keep you healthy in many ways, because a healthy lifestyle can help protect you and your family from obesity, type 2 diabetes, heart disease, some cancers and other health problems (*Tomorrow People* booklet, p. 2).

In the text, overweight and obesity were positioned as increasing risk of disease as well as problems with pregnancy. The materials explicitly encouraged weight loss through ‘simple’ changes to increase healthy eating and physical activity. However there were no visual images related to obesity or high waist circumference included. The section on weight loss presented the story of an Aboriginal woman who had lost a significant amount of weight through participation in the Biggest Loser television show. All visual
images in this section were of this woman after her weight loss; in all but one of the images she was dressed in tight fitting exercise clothing. She spoke of how, before her weight loss:

I was setting a really bad example to the young fellas in my family – all my nephews and nieces – who I love with all my heart. I want them to grow up healthy and live a long and happy life’ (Tomorrow People booklet p. 14).

Her focus on her family continued now that she has lost weight: ‘I’ve also realised how important it is to set a good example to my family’ (Tomorrow People booklet p. 14). The tag line for the campaign was ‘Tomorrow People starts today. Do it for our kids. Do it for our culture’ (Tomorrow People website). As with the other social marketing campaigns analysed, this campaign used coercive guilt, in this case parental, family, and cultural guilt to ‘motivate’ people into adopting healthy behaviours for the express purpose of losing weight in order to reduce risk of disease and live longer, healthier, happy lives.

Making the healthy choice the easy choice was part of an explicit discourse that implied autonomy to choose, but in fact dictated that the only choices that could be made were those defined by public health. As such, these healthy choices were not really choices at all – a choice is not a choice if you have only one true choice. The term healthy choices implied the right to autonomy, but in fact the only acceptable, ‘right’ behaviours for individuals were healthy eating and physical activity, and for industry the only right choices were those that enabled healthy eating and physical activity. The textual practice of presupposition created a taken for granted assumption that these are the only behaviours that anyone would want to practice, given the right amount of motivation, incentive, enabling and environmental support. Nowhere in the documents was there any discussion about the right NOT to choose these behaviours, to be autonomous, to make their own decisions, to make a different choice. The only choice was to make the healthy choice. This discourse was paternalistic and the strategies used to ensure such healthy choices were made were coercive.
Justification for the paternalist, coercive approach was spelt out most clearly in the
National Preventative Health Strategy Overview:

When individuals have imperfect information about their own health, the range of choices
available to them and the expected impact of particular lifestyle choices on their health, they
may fail to act in the best interests of themselves or society (p. 26).

Where imperfect information, the absence of rational decision-making and negative
externalities exist, there is a strong case for corrective action to be taken (p. 26).

The discursive practice of claims-making was used to claim that the paternalistic,
coercive strategies were based on authoritative, scientific sources. Interestingly, in the
Healthiest Country documents, input from the community was cited as an additional
authoritative source in support of increased regulation of food, beverage and
advertising industries. This was the only instance where community input was elevated
to the status of an authoritative or important source in the Healthiest Country
documents. Based on all of the input from authoritative sources and the community,
paternalistic, coercive strategies were deemed necessary. For example:

The Taskforce has considered the economic arguments with regard to these issues carefully
and systematically, and has taken account of research evidence regarding the relative influence
of market, government and individual actions on behaviours that have demonstrated adverse
health outcomes. Further, it has considered the weight of views and arguments presented in
the submissions and received from the community and in consultative forums.

Based on the above, it is the Taskforce’s view that there are areas in which an imperfect market
does in fact exist and which warrant corrective action – largely but not only through
government action – if desired improvements in health are to be achieved. These areas are
those identified as most clearly distorting consumption; for example ... marketing promotions
aimed at children or adolescents that portray unhealthy choices as socially desirable (Roadmap
p. 31 - 32).

The Nuffield Council on Bioethics stewardship model of public health recommends in
part that public health programs not attempt to coerce adults to lead healthy lives,
minimise introduction of interventions without consent, and minimise interventions that are unduly intrusive and in conflict with personal values [64]. The model includes an intervention ladder structured around the concept of choice, ranging from ‘no intervention’ (presented as the bottom rung of the ladder but representing the most choice) to ‘eliminating choice’ altogether (presented as the top rung of the ladder but representing the least choice). The steps in the ladder are: 1. Do nothing; 2. Provide information to guide choice; 3. Enable choice; 4. Guide choice through changing the default policy; 5. Guide choice through incentives; 6. Guide choice through disincentives; 7. Restrict choice; and 8. Eliminate choice. The strategies and actions proposed in the documents analysed for this study ranged from levels 2 to 7. The stewardship model highlights that each of these levels has ethical implications that must be carefully considered [64].

There has been considerable discussion and debate about the ethical issues of autonomy, paternalism and coercion in obesity prevention [37, 425, 454, 475, 542-544, 547, 654, 701], in public health [64, 538, 702, 703] and in government or corporate action [704-707].

With respect to obesity prevention initiatives, Hann and Peckham [621] question the ethics of coercing people into health behaviours and treatment on the basis of their presumed level of risk, rather than actual health problems.

Increasing standardisation of what constitutes being overweight or obese, and of how this is measured and dealt with by health professionals, also raises the issue of choice and freedom for individuals. Are people to be cajoled and medicated simply because they are deemed to fall into a risk category, even if they themselves are not at risk from any specific health problem, or because their risk of a disease is ‘potentially higher’? (p. 130).

With respect to public health initiatives generally, Carter et al. [37] argue that:

The ethics literature suggests that unreasonable coercion might include teaching people to perceive themselves negatively in new ways or exposing them to fear about new and previously
unidentified risks, especially if they are at low risk of actual disease, suffer no apparent symptoms, and may never experience the predicted impact on health outcomes (p. 466).

At the broader level, ‘soft paternalism’ [542] and ‘libertarian paternalism’ [706] have been proposed as strategies that are ‘acceptable’ based on the relative lack of harm resulting from the reduction in autonomy. Libertarian paternalism in particular has been the focus of significant attention in recent years, with its support for the concept that Government agencies and private organizations might justifiably ‘nudge’ individuals toward actions that are better for them. The main proponents of libertarian paternalism propose that it is a way of maintaining a firm commitment to freedom of choice whilst also helping people make better decisions for themselves [706, 707]. The concept of libertarian paternalism has been proposed as a reasonable strategy for obesity prevention [542, 654, 701, 702]. But others have raised ethical questions about libertarian paternalism as a strategy, and suggest that it is neither libertarian nor paternalist, nor is it as benign as its proponents maintain [708].

At the other end of the spectrum, there is considerable support in the health promotion and public health literature for not only reducing coercion and paternalism, but proactively increasing real, not illusory autonomy. Buchanan [48] questions the benefits of focusing on body weight:

We might all be made happy (with Body Mass Indexes of 25) but we would no longer be living lives of our own choosing (p. 300).

In order to position autonomy in a more meaningful way for health promotion practitioners, Buchanan [48] makes a plea for a proactive shift away from traditional health behaviour change towards enhancing autonomy.

Instead of devoting all our time and energy to creating the technologies of behaviour control, I think that we should be moving in precisely the opposite direction. We should be doing everything in our power to increase human autonomy. Instead of seeking to develop programs that are more effective in altering people’s behaviour, we should focus on aiding people to make their own choices about how they want to live in light of their best understanding of the
good life for themselves. As far as I can tell, it is precisely those people in our society who can now exercise the greatest degree of individual autonomy who also enjoy the best health. If this is true, then we should shift the emphasis in the (health promotion) field from the rather narrow focus on producing specimens of physical fitness, to a broader concern for human well-being, here understood in terms of enhancing moral judgment, promoting greater self-understanding, liberating people from scientistic assumptions (perpetuating the belief that human behaviour is determined by antecedent causes that only highly trained scientists can divine), advancing the cause of social justice, and promoting respect for the diversity of understandings of the good life for human being (p. 302).

Research by Carter et al. [32] on the values and principles of health promotion practitioners found that they were supportive of the principles of autonomy and:

... striking for their contrast with the paternalistic health promotion ... Rather than being coercive, the health promotion valued here is respectful, responsive, tailored, capability-developing and relational and seeks sustainable benefit in communities (p. 137).

Summary

This section has presented and discussed the extent to which the health promotion values and principles focused on personal autonomy were evident in the documents. Through boundary critique I identified that there was a strong illusion of personal autonomy discourse that was presented as choice discourse. In addition there was strong evidence of coercive, paternalist discourse where respect for personal autonomy was effectively restricted. Through reflective practice using the health promotion values and principles continuum as a critical questioning tool, I determined that the public health strategies significantly restricted personal autonomy, and that the weight-centred public health initiatives were therefore strongly consistent with traditional health promotion.

8.2.3 Beneficence

Description

The focus of these values and principles is on the consideration of beneficence in the weight-related public health initiatives. Public health strategies that actively consider
ways to maximise beneficence are consistent with modern health promotion. Public health strategies that do not actively consider ways to maximise beneficence, and therefore have limited beneficence are consistent with traditional health promotion.

**Result and discussion**
Through the analysis I identified a ‘beneficiaries but not benefits’ discourse related to beneficence.

Discourses in the documents related to beneficence focused on maximising the reach (beneficiaries) of the public health strategies proposed and currently implemented, and articulating the strategies’ benefits. With respect to maximising the beneficiaries of the strategies, as described in the section above on ‘who to work with’, there was a strong mixed-approach discourse that included a primary focus on the whole population, and a secondary focus on specific groups within the community identified on the basis of unequal distribution of obesity rates. This discourse was created through the textual practice of word connotations. A range of terms was used to describe the primary beneficiaries as the ‘whole population’, ‘whole community’ and ‘all Australians’. Likewise a range of terms was used to describe the specific population groups of beneficiaries that required particular attention in order to ensure that they received the benefits of the public health strategies. These beneficiary groups were described as those ‘most in need’, ‘in poorest health’, ‘at risk’, ‘vulnerable’ and ‘disadvantaged’. Evidence for these discourses was presented in the section above, so will not be repeated here.

With respect to the benefits of the public health strategies, the overall proposed benefits of the strategies depended on the nature of the strategy and the level of benefit articulated. The subtitle of Healthy Weight was ‘Australia’s Future’, implying that the future of Australia depended on, and would therefore benefit from the strategies laid out in the action agenda. A level of benefit was articulated in the strategic intent of the four-year action agenda Healthy Weight 2008 which was to ‘Assist Australians to enjoy the highest levels of good health in the world by promoting
healthy weight’ (Healthy Weight p. 1). Securing the future of the country and the highest levels of good health in the world could be regarded as extremely ambitious and perhaps even hyperbolic targets for a strategy with a sole focus on body weight. More specific anticipated benefits from the action agenda were articulated in the goals, which were to:

1. Achieve healthier weight in children and young people through actions which first stop and then reverse the increasing rates of overweight and obesity.
2. Increase the proportion of children and young people who participate in and maintain healthy eating and adequate physical activity.
3. Strengthen children, young people, families and communities with the knowledge, skills, responsibility and resources to achieve optimal weight through healthy eating and active living.
4. Address the broader social and environmental determinants of poor nutrition and sedentary lifestyles.
5. Focus action on giving children, young people and families the best possible chance to maintain healthy weight through their everyday contacts and settings (Healthy Weight p. 1).

The proposed range of benefits for Healthy Weight were therefore a secure Australian future, the highest levels of good health in the world, declining rates of overweight and obesity, increasing proportions of children and young people with healthy body weights, eating healthy foods and being physically active. The relatively limited nature of these benefits was consistent with other aspects of the initiatives examined above, including the construction and naming of the issue as overweight and obesity and the sole focus on proximal healthy eating and physical activity as determinants of body weight.

The proposed benefits of the National Preventative Health Strategy were clearly articulated through all of the related documents and started with the title ‘Australia: the Healthiest Country by 2020’. The Strategy included a focus on obesity, alcohol and tobacco consumption, and as such had a broader remit than Healthy Weight. Nonetheless achieving the status of healthiest country in the world could also be regarded as an ambitious and perhaps hyperbolic target for a strategy focused on

three health issues that purportedly account for 17% of the overall disease burden in Australia (Roadmap p. 7).

More specific benefits from the Strategy were articulated in the objectives which were to:

- Halt and reverse the rise in overweight and obesity.
- Reduce the prevalence of daily smoking among adult Australians aged 18+ from 17.4% in 2007 to 10% or lower.
- Reduce the proportion of Australians who drink at short-term risky/high-risk levels to 14%, and the proportion who drink at long-term risky/high-risk levels to 7%.

The interim targets related to obesity were to:

- Increase the proportion of children and adults meeting national guidelines for healthy body weight by 3 percentage points within 10 years
- Increase the proportion of children and adults meeting national guidelines for healthy eating and physical activity by 15% within six years
- Help assure Australian children of a healthy start to life, including through promoting positive parenting and supportive communities, and with an emphasis on the new (Roadmap p. 36).

The proposed benefits implied by the goals and targets were therefore to be the healthiest country with declining rates of overweight and obesity, and increasing proportions of children and adults with healthy body weights, eating healthy foods and being physically active, and having a healthy start to life. As with Healthy Weight, the relatively limited nature of these benefits was consistent with other aspects of the initiatives examined above, including the construction and naming of the issue as overweight and obesity and the sole focus on healthy eating and physical activity as determinants of body weight.
The proposed benefits of *Weighing it up* were related to the terms of reference of the Inquiry in Obesity:

- The Committee will inquire into and report on the increasing prevalence of obesity in the Australian population, focusing on future implications for Australia’s health system.
- The Committee will recommend what governments, industry, individuals and the broader community can do to prevent and manage the obesity epidemic in children, youth and adults (*Weighing it up* p. x).

Future implications were framed as economic costs, individual costs, social costs, costs of co-morbidities and hospital costs. The benefits of adopting the recommendations for actions were therefore framed as avoiding or reducing these costs. Framing benefits as the avoidance of costs, particularly economic costs was consistent with what Porter [45] identified as the shifting discourse in health promotion from a new social movement to a new capitalist movement aligned with neoliberal political ideology whereby capitalism and free markets are privileged over people. It was also consistent with a deficit-based approach focusing on avoiding the negative rather than fostering the positive.

The proposed benefits of the social marketing campaigns were articulated through their messages: reduced waist circumference, decreased unhealthy eating and physical inactivity, decreased rates of chronic disease, and longer lives.

In summary, the proposed benefits from the weight-related public health initiatives ranged from the very grand (securing Australia’s future and being the healthiest country in the world with the healthiest people in the world), to the relatively ambitious (reducing rates of overweight and obesity, increasing rates of healthy weight, reducing rates of chronic disease, reducing the gap in health status between Indigenous and non-Indigenous people). Behavioural benefits (increasing rates of healthy eating and physical activity and reducing rates of unhealthy eating and physical activity) were included on the assumption that they would lead to the achievements of the higher level benefits. No other benefits from these behaviours were discussed in
the documents. The range of benefits considered in the weight-related public health initiatives was therefore limited.

Public health strategies that have a narrow focus on behaviours and their contribution to overweight and obesity have an opportunity cost. Investing for maximum benefit was one of the components of the framework guiding the selection of actions within the National Preventative Health Strategy. For example:

The fourth rationale for selecting components of the Strategy is that of minimising opportunity cost – that is, the opportunities and benefits missed because of activities that have not been funded. This requires the redirection of resources away from cost-ineffective to more cost-effective interventions. Put simply, resources should be allocated where they yield the greatest benefit per unit cost. The approach taken by the Taskforce has been to work wherever possible from a well-researched evidence base – and where the evidence is not yet clear, to build evidence to inform future cost-effective investment in prevention activity (Roadmap p. 34).

Economic opportunity cost is important, particularly in the expenditure of Government funds and a number of studies have attended to quantify the cost-effectiveness of various obesity prevention and reduction public health initiatives in order to assist in making decisions about opportunity cost. For example, the Assessing Cost-Effectiveness in Obesity (ACE-Obesity) study [709] set out to determine the economic credentials of interventions which aim to prevent unhealthy weight gain in children and adolescents. However the authors noted that the selection of interventions for analysis was a difficult and time consuming task because of the limited evidence of effectiveness of such interventions. This same issue was noted in the National Preventative Health Strategy. Opportunity cost however is not just limited to economic cost.

In the study by Catling and Malson [500], women with an eating disorder identified the opportunity cost of obesity prevention materials produced by the UK Department of Health was ignoring problems associated with underweight and disordered under-eating. In reviewing Canada’s healthy living initiatives, Pederson et al. identified the
dominance of individual-focused initiatives, despite a strong socio-environmental discourse. The opportunity cost of these initiatives, rather than those that addressed structural, systemic and environmental barriers to nutrition and physical activity, was to divert attention away from the positive impact of good nutrition and physical activity on physical, emotion and social health and wellbeing for all women and girls [535]. Based on the nature of the strategies proposed or implemented in the weight-based public health initiatives in this study, the same opportunity costs could potentially apply.

**Summary**

This section has presented and discussed the extent to which the health promotion values and principles focused on beneficence were evident in the documents. Through **boundary critique** I identified that the mixed-approach discourse identified in the ‘who to work with’ section was relevant to this section, and that its presence indicated that consideration had been given to maximising the range of beneficiaries of the public health strategies. However I also identified that the range of benefits was ultimately limited to prevalence rates of overweight, obesity, healthy eating and physical activity and that the opportunity costs of the proposed and currently implemented strategies had not been considered. Through **reflective practice** using the health promotion values and principles continuum as a critical questioning tool, I determined that although there was broad range of beneficiaries considered, the limited range of benefits meant that the overall there was moderately **limited beneficence**, and that the weight-centred public health initiatives were therefore somewhat consistent with **traditional health promotion**.

**8.2.4 Non-maleficence**

**Description**

The focus of these values and principles is on the consideration of non-maleficence in the weight-related public health initiatives. Public health strategies that actively consider ways to avoid or **minimise non-maleficence** and communicate risks and potential harms in a truthful and open manner are consistent with **modern health**
Health promotion. Public health strategies where the full scope of potential maleficence is not fully considered are consistent with traditional health promotion.

**Result and discussion**

Through this analysis I identified a very weak ‘no harm’ discourse related to maleficence. However I also identified significant potential for harm inherent in the strategies.

Public health initiatives are often considered to be automatically good for people, because that is their expressed intention. As such the potential to create harm, even inadvertently, is rarely considered [619]. Across all of the documents analysed in the study, there was a relative lexical absence of discussion regarding the scope of maleficence or potential for harm arising from the proposed strategies. There was a very small lexical presence of references to the general existence of risk and potential harms, and a small number of references to specific potential harms. The explicit non-maleficence discourse was therefore minimal.

*Healthy Weight* acknowledged the general existence of risk and potential harm arising from obesity prevention strategies. The terms of reference for the Scientific Reference Group of the National Obesity Taskforce acknowledged the potential for risk:

1. Support the work of the National Obesity Taskforce and in particular provide expert advice to the Taskforce about proposed actions to reduce obesity in Australia.
2. Drawing on the scientific literature and expert opinion, assess these actions in terms of their effectiveness, reach and impact.
3. Consider any risks associated with these actions and the ways in which these actions could be strengthened (*Healthy Weight* p. ii).

The potential for harm arising from public health actions was acknowledged in the guiding principle for such actions to ‘Reduce stigmatisation and avoid blaming young people, parents or carers’ (*Healthy Weight* p. 4). One of the submissions to *Weighing it up* warned of the potential harm to children from obesity prevention initiatives:
‘Associate Professor O’Dea ... urged the importance of the ‘first do no harm’ message’ (Weighing it up p. 132). There were no other general references to the existence of risk and potential harms in the documents. There was a limited lexical presence of references to potential harm arising from specific obesity prevention and reduction strategies.

The imposition of taxation on ‘unhealthy’ food was proposed in the Obesity Technical Report, which acknowledged the disproportional impact and therefore potential harm that such a tax may have on people and families on lower incomes. Despite this consideration, the technical report included the recommendation to consider ‘increasing taxes for energy-dense foods’ based on the rationale that ‘taxing unhealthy foods may provide an incentive to manufacturers to change their production processes to reduce the fat, salt or sugar content in order to maintain their market share’ (Obesity Technical Report p. 24).

This recommendation was carried forward into the National Preventative Health Strategy, where it was incorporated into the broader proposed strategy to use methods such as taxation to promote consumption of healthier foods (Roadmap p. 143). However, through lexical suppression, there was no reference to any potential harm associated with this particular strategy that had been raised in the Obesity Technical Report.

The potentially harmful outcome of increasing child body dissatisfaction was raised in the Obesity Technical Report. The discussion focused on whether this might be an unintended consequence of the strategy of raising mothers’ concerns about their children’s weight. This strategy was mooted as a potentially productive strategy to ‘assist lifestyle change’ and therefore reduce children’s BMI. The report described one prospective study that examined the relationships between mothers’ concerns about children’s weight, children’s and mothers’ dissatisfaction levels, and BMI changes from age 4 to 6.5 years. The study found that ‘maternal concern was not associated with BMI change, or child’s body dissatisfaction by the age of 6.5 years’ (Obesity Technical
Perhaps because raising maternal concern was shown to be an ineffective strategy for reducing children’s BMI, the strategy of raising mothers’ concerns was not included as an explicit recommendation. There were no references in this section or in any of the documents to the numerous prospective studies in children and adolescents that have demonstrated that child and/or parent weight concerns actually predict increases in body dissatisfaction, dieting, low self-esteem, weight bias, unhealthy weight control behaviours and weight gain [237, 238, 271, 337, 645, 710-713].

Although weight loss products and programs are not normally considered public health strategies, the strong focus of the social marketing campaigns in particular on weight loss may result in people using such products and programs in an attempt to lose weight, rather than follow the Government’s prescription to just increase healthy eating and physical activity behaviours. In Australia the weight loss services industry in 2010 was estimated to be worth $790 million with an annual growth over the previous 5 years of 4.1% [259]. The economic size of the weight loss industry in Australia is evidence of the level of commitment to weight loss in Australia that goes beyond simply eating well and being active. Given that weight-related public health strategies specifically encourage weight loss, the potential harms associated with weight loss practices, products and programs should be actively considered.

The weight loss industry was addressed in a number of the documents. Safety and efficacy of commercial weight loss products and programs were addressed in Weighing it up and resulted in a recommendation. For example:

Mr O’Neill’s concerns are shared by the Dieticians Association of Australia (DAA) who state that there is a need to protect consumers from unproven weight loss products that are often harmful, and that these products require a proof of ‘safety and efficacy’. The Committee recognises that many of these weight loss products are regulated by the Therapeutic Goods Administration (TGA) but is concerned that some products evade scrutiny by that body. The Committee also recognises that the ACCC may have the power to investigate some weight loss programs but, again, some programs evade the system. There appears to be a grey area where
some products and programs escape scrutiny by any regulating body, and Australian consumers are left vulnerable to deception (Weighing it up p. 106).

Recommendation 17
The Committee recommends that the Minister for Health and Ageing review the adequacy of regulations governing weight loss products and programs with the intention of ensuring that they can only be sold and promoted if nutritionally sound and efficacious. The review should also examine ways to improve industry compliance with the Weight Management Council of Australia’s Weight Management Code of Practice (Weighing it up p. xvii).

The Obesity Technical Report raised concerns about the safety and effectiveness of weight loss programs. For example:

There are a wide range of weight loss programs available ... While these programs are popular, there is limited data on their effectiveness. To ensure that industry practices are safe and effective, there is a need to review weight loss industry programs and to develop a common code of practice for the industry, covering issues such as costs, counsellor training, and the marketing and promotion of services (Obesity Technical Report p. 18).

These issues were carried through into the Roadmap however the concerns about efficacy were more prevalent than concerns about safety. For example:

There are currently inadequate regulations and voluntary codes of practice which apply to weight loss products and programs. A plethora of over-the-counter products and programs are available and promoted for weight loss in Australia, including through pharmacies, many with unsubstantiated claims of efficacy. Insufficient consultant training, lack of qualified supervision and no capacity to individually tailor advice and plans have been identified as common problems in a range of pharmacy-based weight loss programs in Australia. ... (This) is an area that needs to be addressed through adequate action to ensure Australians have access to effective weight loss products and services. For complementary medicines, this would be addressed through the Therapeutic Goods Association (TGA); for the weight-loss industry, this is likely to be achieved through the Trade Practices Act. There is a need to develop mechanisms that ensure safe industry practices within the commercial weight-loss industry and ensure access to effective weight loss products and services (Italics added) (Roadmap p. 138).
Despite this discussion about the need for stronger regulations and codes of practice, and the fact that the weight loss industry profits directly from weight-related public health initiatives, public health strategies related to the weight loss industry ‘cannot be recommended as part of a national obesity prevention strategy’ (Roadmap p. 138) because the industry was focused on weight loss, rather than obesity prevention. Interestingly, this criterion was not applied to the social marketing campaigns, despite their direct and explicit focus on weight (waist) loss to move individuals from obesity to healthy weight. The goal of the campaigns was identical to that of the weight loss industry. It appeared as though the only difference was that the campaigns were Government initiatives.

The concerns raised in the documents about efficacy are important, given that there is now a substantial body of literature demonstrating weight loss strategies, including for-profit programs, are effective in reducing weight and sustaining weight loss over two to five years in only around 5% of people [20, 261]. The long term ineffectiveness of weight loss strategies are a concern for Governments in their role of consumer protection against ineffective products, as noted in Weighing it up and the Roadmap. But the concerns about ineffectiveness should not stop there.

The role of the weight loss industry, and ironically, the Government itself in encouraging weight loss should also be a concern for obesity prevention because weight loss is not only almost impossible for the majority of people to maintain, but attempted weight loss strongly predicts weight gain [235, 237, 238, 296, 640, 641]. Between one-third and two-thirds of people who lose a substantial amount of weight on a dietary based weight loss program will regain all the lost weight and more within five years [261]. The findings from these studies raise important questions about the ethics of recommending ineffective pursuits such as intentional weight loss [20], particularly for middle aged or older people as is the explicit focus of Measure Up and Swap It, Don’t Stop It.
In addition to concerns about efficacy of weight loss products and services expressed in the documents, the concerns about safety are also well founded. However the safety issues are not just confined to the safety of the products, but of the underlying intention of weight loss. As described in detail in Chapter 2, there is now a significant body of literature that demonstrates that weight cycling is more harmful than weight stability, irrespective of body weight [128, 310]. Stable weight is observed more often in individuals with less extensive histories of weight loss [628]. A number of studies have demonstrated that intentional weight loss increases mortality risk. In a recent paper of particular relevance to the Measure Up and Swap It Don’t Stop It social marketing campaigns which focus on encouraging middle aged men to lose weight, Zheng et al. tracked survival over 16 years of almost 10,000 people in a nationally representative sample in the USA, who were aged between 51 and 61 years at baseline [714]. Changes in BMI were assessed every two years and participants were classified as weight downwards, weight stable or weight upwards based on changes from baseline to exit from the study or study conclusion. After controlling for a range of demographic, socioeconomic and behavioural variables, self-rated health status, health problems and functional limitations, participants with the highest survival rates were those in the overweight category who were weight stable, and those that had moved from overweight to obese class 1. The trajectory of weight over time was a more accurate predictor of survival than BMI category alone. This study reinforced the findings of others that, particularly for middle aged and older people, weight stability is the most important predictor of survival, and intentional weight loss increases risk of mortality [715].

In summary, the explicit potential harms referred to in the documents included: blaming young people, parents or carers; disproportional impact of taxes on unhealthy food on people and families on low incomes; body dissatisfaction in children; expenditure on ineffective weight loss products and programs; and safety of weight loss products and programs. However the extent of these concerns was not fully explored, despite their significant presence in the literature. There was no exploration
of any other unintended harms arising from the proposed public health strategies. The potential for other such harms was nonetheless evident.

Stigma and related concepts of bias, prejudice, harassment, bullying and discrimination were explored in *Weighing it up*, however these were attributed to obesity directly. For example:

The Committee was concerned by the extensive personal costs that individuals affected by obesity incur. Witnesses to the inquiry identified a number of areas, in addition to financial ones, where people bear a personal burden for obesity including:

- discrimination;
- stereotyping;
- abuse and bullying; and
- premature death (*Weighing it up* p. 23).

The Committee learnt that discrimination is linked to stereotypes that have developed around obesity. Witnesses told the inquiry that overweight and obese people can be perceived as lazy, bad, weak, stupid and lacking in self-discipline. The Committee was particularly concerned to hear from Queensland Health that these misperceptions had been perpetrated by some health professionals: These negative attitudes not only exist within the general public but also among many health professionals, which can seriously affect the treatment of overweight and obese individuals (*Weighing it up* p. 23).

The Committee heard first hand from witnesses that a consequence of such typecasting is the personal abuse and bullying that obese people suffer. Unfair treatment contributes to the lack of confidence and low self-esteem that often characterises individuals who are overweight or obese. One witness told the Committee of her ‘overwhelming sense of shame and hurt’ at the remarks passed by strangers, friends and work colleagues about her weight. An academic working with overweight children told the Committee that children are well aware of their weight problem and provided an example of one boy ... who had not been to school for two days ... because he just could not cope with the bullying (*Weighing it up* p. 24).

The Committee seemed shocked to hear that stereotyping was perpetuated by some professionals ‘These negative attitudes not only exist within the general public but also among many health professionals, which can seriously affect the treatment of
overweight and obese individuals’ (*Weighing it up* p. 24). Although the Committee heard many stories about stigma, stereotyping, discrimination and their effects, there was no connection made between these as potential consequences of obesity prevention and reduction public health strategies. However analysis of the proposed and current public health strategies in this study identified a number of stigmatising components.

Weight-based stigma is now well recognised as a pervasive and insidious form of stigma [363]. Puhl et al. report that weight-based discrimination (a direct result of stigma) in the USA is has similar prevalence to race-based discrimination, and that discrimination for fatter and younger people in particular is even higher [393]. Numerous scholars have highlighted the stigmatising discourse evident in obesity prevention programs and policies [32, 64, 447, 468, 531, 535, 543, 544, 618].

Through overlexicalisation and presupposition, the explicit and repeated focus of the proposed and currently implemented public health strategies on unhealthy eating and physical inactivity as the ultimate key drivers of obesity, as described in a number of sections above, was in and of itself stigmatising. As witnesses to the Obesity Inquiry shared with the Committee, fatness is highly stigmatised in society. White’s analysis of the UK *Change4Life* obesity prevention public health program was consistent with this finding. He found that the *Change4Life* program illustrated widespread cultural anxieties about immorality, disease, civilisation and death [537]. The author argued that through obesity prevention public health programs, fatness is increasingly being positioned as anti-social and a threat to the viable future of society.

Many studies have confirmed the high level of stigma associated with fatness that arises from the broad cultural anxieties identified by White [537], layered with specific cultural beliefs that people are fat because they are gluttonous or slothful or both, and they lack the will power, self-control and moral fibre necessary to lose weight [415, 463, 678, 716-720].
The public health strategies in this study reinforced the ‘anachronistic preconceptions’ [721] (p. 563) that weight is ‘easily’ controlled by ‘choosing’ a healthy lifestyle consisting of healthy eating and physical activity. The social marketing strategies made additional contributions to the construction of simplistic, behavioural causes of obesity (and therefore allocation of individual blame), association of obesity with risk of disease and death (and therefore allocation of moral responsibility to respond), and easy behavioural solutions (and therefore allocation of locus of control within the individual) through the use of visual imagery and conversational tone.

The Measure Up and Swap It, Don’t Stop It campaigns presented their central characters as having put on weight over the years because of unhealthy eating and physical inactivity. When we first met the characters, they assumed full responsibility for their fatness, as signified by their large waists, and looked sad about their realisation that their fatness increased their risk of disease and death. The main male character in Measure Up, as well as the female character used in some of the supporting print materials, were positioned looking down at the tape measure as they measured their waist and discovered that it was larger than the precise number recommended for ‘most people: 94 centimetres for men and 80 centimetres for women’ (Measure Up website) (numbers derived from epidemiological studies of populations to determine relative risk without controlling for confounding factors). Although the characters were facing down to look at the tape measure, this position also suggested hanging their heads in shame, and the looks on their faces reinforced this reading (Figure 11).
The characters’ clothing also contributes to this reading. Carter et al. ask why is it necessary for the characters in Measure Up to appear in their underwear [37]? One reason might be that the characters are consenting to being publicly shamed. Appearing in one’s underwear in public is not automatically shameful, but it depends entirely on the context. The clothing of the Measure Up characters was similarly revealing to the clothing worn by contestants in the television program The Biggest Loser, which explicitly uses shame to ‘motivate’ contestants to lose weight. Part of the public shaming of contestants involves their appearance in revealing exercise clothing for weigh-ins, which displays their fatness for all to see [722]. The association of this visual strategy with the position and facial expressions of the characters, within the context of the overall message of the campaign, conveys a strong, consistent message that the characters both feel shame and are deserving of shame. The stigmatising effects of this and other aspects of the Biggest Loser television program are well documented [428, 722-725].

Thus the characters in Measure Up appeared to be accepting the blame for their current physiological state and risk status, and the male character specifically expressed shame about ‘letting himself go’. For example:
You know how it is—you settle down, put on a few kilos. But I’m not worried. Then you have kids, life gets busier, you let yourself go a bit. I’m not worried. But when I first realized it was affecting my health—well, yeah, I got worried (Measure Up television advertisement).

Eric expressed the same belief that he had let himself go: ‘If you’re like me, over the years you’ve put it on... and on’ (Swap It, Don’t Stop It materials). The main male characters in both campaigns spoke in conversational tone of having ‘too much to lose’ if they did not respond to this situation by reducing their waist through adopting healthy behaviours.

The focus of the proposed and currently implemented public health strategies on healthy and unhealthy lifestyles in this study contributed to what Fry [544] refers to as accepted and contested health identities. The ‘accepted health identity’ is represented as responsible and aspiring to and pursuing good health. The ‘contested health identity’ is represented as unhealthy, consuming too much alcohol, drugs and food, and taking health risks, and this identity is stigmatised by public health programs [544]. The ‘contested health identity’ represents the specific application to public health of Goffman’s ‘spoiled identity’ on which much stigmatisation theorising and research has been based [381].

As a result of both lexical and visual textual practices, the public health strategies analysed in this study contributed to the construction of the accepted health identity through discourses of individual responsibility, choice and healthy lifestyle. Furthermore, they contributed to the construction of the spoiled or contested health identity through discourses that people are naturally unhealthy and need to be frightened, guilted and shamed into stopping unhealthy behaviours and adopting healthy behaviours. The contested health identity constructed through these discourses was in turn stigmatised by such discourses.

Thus the public health strategies analysed in this study not only risked perpetuating stigmatisation through the reinforcement of the health identities, but possibly extended it further by legitimising the stigma associated with such identities. The
proposed or existing public health strategies analysed in this study were almost exclusively led by Government agencies, and so the already deeply stigmatising social belief system received a significant boost in legitimacy by being positioned as public health belief system perpetrated by Government.

As Thomas et al. identified in their study of obese people’s responses to various weight-related public health strategies:

... participants trusted interventions from public health agencies as they thought these were more likely to be evidence-based: “I respect that what they are saying is not just a marketing ploy but it is a fact” [473] (p. 4).

The Government source of the messages included in the public health strategies in this study therefore provided further justification for stigmatising fatness and fat people. People trust that public health strategies will be based on good evidence and only include facts. Even if both of these conditions were satisfied, if such strategies also contribute to increased stigma, then they do not satisfy the ethical requirement to do no harm.

In addition to the generalised stigma perpetuated and exacerbated by the public health strategies, the identification of certain groups within the population as being ‘high risk’ or ‘at risk’ of obesity may have further contributed to stigmatisation. As discussed in previous sections, there were strong discourses related to risky population groups that needed to be targeted with interventions. Identification of being in a ‘high risk’ group adds another layer of stigma to existing generic weight-based stigma [542]. Many of the ‘high risk’ groups identified in the documents are subjected to stigma and other forms of oppression based on factors such as class, race, gender and sexuality. A number of studies have explored the intersection between these various forms of oppression and demonstrated a cumulative effect on health [384, 612, 726-728]. Stigma is a foundation condition for other forms of weight-based oppression such as discrimination, harassment, vilification, bullying. The prevalence and impact of these forms of oppression were discussed in Chapter 2 of the thesis. Although the public
health strategies analysed in this study could not be held directly responsible for these types of oppression, nonetheless through the Government backed production, maintenance and exacerbation of weight-based stigma, these sequelaes can be envisaged. A small number of qualitative and quantitative studies have examined the perceptions of the community about the contribution of specific existing public health strategies to stigmatisation.

Thomas et al. [473] examined the responses of obese people to obesity prevention public health strategies in Australia, and identified that participants regarded the Cancer Council campaign (focusing on waist measurement and risk of cancer) as blaming, shaming and stigmatising. In contrast participants liked initiatives such as ‘Go For Your Life’ which encouraged lifestyle changes rather than weight loss because they were perceived as less stigmatising. Thompson and Kumar [474] investigated individuals’ responses to obesity prevention public health strategies in New Zealand and found that the social marketing strategies designed to increase fruit and vegetable consumption (5 + a day program) and physical activity (Push Play program) were perceived as creating or heightening perceptions of undeserving ‘others’ through moralising about and stigmatising of fat people and ‘poor’ behavioural choices [474]. Catling and Malson [500] investigated the responses of women with an eating disorder to obesity prevention public health materials produced by the UK Department of Health, mostly focusing on childhood obesity. Participants perceived that the materials exacerbated existing cultural and social beliefs about the ‘thin ideal’ and the ‘fat unideal’ thereby contributing to stigmatisation.

In the first systematic, quantitative study of the reactions of people to a range of obesity prevention public health messages from different campaigns, Puhl et al. [683] selected 29 public health messages from obesity prevention campaigns in the USA, UK and Australia. Messages were rated by a representative sample of members of the community in the USA on a number of positive and negative dimensions including stigmatising, motivating, and intention to comply. The messages with the highest scores for stigmatising also received the most negative evaluations on other indicators,
such as inappropriate, pointless and confusing. The most stigmatising messages also received the lowest proportion of participants intending to comply with the message. The six most stigmatising messages with the lowest proportion of people intending to comply were as follows:

- Childhood obesity is child abuse: 28.3% intend to comply
- Too much screen time, too much kid: 16.5% intend to comply
- Keep obesity away from your child: 17.1% intend to comply
- Being fat takes the fun out of being a kid: 13.7% intend to comply
- Fat kids become fat adults: 36.3% intend to comply
- Chubby kids may not outlive their parents: 18.4% intend to comply

In contrast, the least stigmatising messages received the highest positive evaluations and the lowest negative evaluations, and the highest proportion of people intending to comply. These were positive messages focused on increasing fruit and vegetable consumption and physical activity.

Two messages from Measure Up were included in the analysis: ‘The more you gain, the more you have to lose’ (The more you gain) and ‘Unhealthy eating and drinking and not enough physical activity can seriously affect your health’ (Unhealthy eating and drinking). The more you gain was the 8th most stigmatising and 11th least motivating message, but had the 11th highest proportion intending to comply. Unhealthy eating and drinking was the 11th least stigmatising and 11th most motivating message, and the 8th highest proportion intending to comply. The more you gain message, which focused on body weight and implying personal responsibility and blame, was therefore viewed as more stigmatising and less motivating, and had a lower intention to comply than the unhealthy eating and drinking message which focused on avoidance of unhealthy behaviours. Both messages were rated as less motivating with lower intention to comply than positive messages focused on eating well and being physically active.
Due to the significant focus on body weight in Western developed countries, there has been a burgeoning of social marketing campaigns replete with messages intended to prevent and reduce obesity. However, the study by Puhl et al. [683] was, to the best of their knowledge, the first study to ‘systematically assess public perceptions of health campaigns to address obesity, with particular attention to perceptions of stigmatizing versus motivating content of messages’ (p. 5). Despite the findings from this and other qualitative studies on the impact of stigmatising messages on people and their behavioural intentions, increasing stigma has been proposed as an obesity prevention and reduction strategy worthy of consideration.

Callahan [654] expresses concern that ‘Obesity may be the most difficult and elusive public health problem this country has ever encountered’ (p. 34) in part because of the ‘disturbingly low success rate’ (p. 34) of programs designed to reduce obesity. Given this, he proposes the implementation of what he terms ‘stigmatization lite’ (p. 38) as a strategy to intensify social pressure against obesity. His proposal involves:

... finding ways to induce people who are overweight or obese to put some uncomfortable questions to themselves:

- If you are overweight or obese, are you pleased with the way you look?
- Are you happy that your added weight has made many ordinary activities, such as walking up a long flight of stairs, harder?
- Would you prefer to lessen your risk of heart disease and diabetes?
- Are you aware that, once you gain a significant amount of weight, your chances of taking that weight back off and keeping it off are poor?
- Are you pleased when your obese children are called “fatty” or otherwise teased at school?
- Fair or not, do you know that many people look down upon those excessively overweight or obese, often in fact discriminating against them and making fun of them or calling them lazy and lacking in self-control? (p. 38).

Perhaps not surprisingly, Callahan received a number of indignant and highly critical responses to this proposal, citing evidence of the ineffectiveness of stigmatisation as a strategy for health improvement and arguing that deliberate stigmatisation is unethical. Callahan’s response to these criticisms was that he made a mistake, not in
the basic tenet of his argument but in focusing his ‘stigmatisation lite’ strategy on obesity reduction rather than obesity prevention [729]:

But I made a dumb error in editing the manuscript, in its third revision. My main point was to use social pressure on those not yet obese or just a little overweight to induce them to stay that way; that is, deploy it as a prevention strategy. But I left in some sentences from earlier draft versions—before I changed my mind, influenced by Rebecca Puhl — that said stigma should be used on the obese and overweight. I noticed that mistake only after the article was in print—and my self-laceration as a long time writer and editor easily exceeded that of one reader who told me she “hoped I would rot in hell,” or that of one of the responses printed here, that the article was “cynical and unscientific . . . mean-spirited.” In any case, let me say flatly that I do not favor stigmatizing the overweight or obese, and surely not discriminating against them (p. 9-10).

What Callahan clearly doesn’t understand is that using social pressure on those ‘not yet obese’ or ‘just a little overweight’ to induce them to stay so involves stigmatising obesity – the thing you want them avoid – and therefore stigmatising the overweight or obese. He simply cannot achieve one without the other.

Callahan is by no means the only person to have proposed a little stigmatisation as a useful strategy for reducing or preventing obesity. In a paper reporting on a roundtable discussion exploring the effectiveness of messaging in childhood obesity campaigns [730], two of the participants (both paediatricians) repeatedly support stigmatisation as a laudable strategy, despite recognising that it has damaging consequence. In a number of instances these participants refer to the Strong4Life campaign by Children’s Healthcare of Altanta which featured three of the six most stigmatising messages identified in the Puhl et al. study [683]: ‘Being fat takes the fun out of being a kid’, ‘Fat kids become fat adults’ and ‘Chubby kids may not outlive their parents’:

Pretlow: …even though there might be some collateral damage in the form of teasing with this (Strong4Life) type of approach … (p. 98).

Sears: The good news is that these provocative (Strong4Life) ads can call attention to the problem in a way that the kids think that it is just not “cool” to be obese (p. 98).
Pretlow: ... an anti-obesity campaign, such as Strong4Life, might not comprise a surgical strike and there may be some casualties in regard to humiliated kids ... (p. 99).

Sears: I think the positive side of the Strong4Life campaign ... is its shock value (p. 99).

Sears: I ... believe that we have to accept a little bit of insensitivity ... (p. 99).

Sears: ... for every eating disorder we might create ... (p. 99).

Pretlow: We had ... trouble with schools that did not want to conduct a weight loss program because they said it would induce anorexia ... (p. 100).

Sears: An occasional child might be pushed over into anorexia, but I think (not wanting to focus on body weight) is an overreaction and represents unwarranted fear (p. 100).

Pretlow: We can certainly look at the use of very confrontational messages to promote smoking cessation. ... At some point I think we need to go there for obesity. Yes, we are going to have some collateral damage ... (p. 102).

Callahan, Pretlow, Sears and others may regard stigmatisation as ‘worth a try’ [654] (p. 39) based on the reasoning that the end justifies the means. Many however contend that it is not. Burris [731], for example argues:

... the state and those working under its auspices should not be promoting or indulging that stigma in any way, because stigma is a barbaric form of social control that relies upon primitive and destructive of emotions. And chances are it won’t work anyway (p. 475).

Not only does it not work, but exposure to weight-based stigma or internalisation of fat stigma [549, 550] is associated with a range of negative health outcomes including depression, anxiety, low self-esteem, body image disturbance, disordered eating, avoidance of physical activity, decreased use of preventive health services, increased calorie consumption, and weight gain [87, 551-553]. With respect to the direct impact of obesity prevention public health initiatives, Catling and Malson [500] found that women with an eating disorder regarded obesity prevention materials produced by the UK Department of Health as potentially very damaging to people viewing them, and labelled them as ‘anorexogenic’ and ‘bulimogenic’. They perceived the materials to be sanctioning and even mobilising disordered eating. Burris [731] regards efforts to increase internalised stigma as particularly inhumane:
Stigma’s cruelty is most prominent in the phenomenon of self-enforcement. To cut a person off from the esteem and support of others is bad enough, but then to turn the individual into his own jailor, his own chorus of denunciation, takes inhumanity to an ultimate pitch. (p. 475)

The Chief Public Health Officer of Canada’s 2011 report highlighted the importance of reducing weight-based stigmatisation, and recognised that weight stigmatisation can actually contribute to weight gain [732]. To my knowledge this is the only Government document that has made such an acknowledgement. Furthermore, the Chief Public Health Officer noted that ‘efforts to treat overweight and obesity must continue to shift away from weight and appearance and towards healthy attitudes and balance’ (p. 100).

Some scholars have argued that even if weight-based stigma was effective at reducing and preventing obesity, and even if it was not shown to be harmful (two conditions for which there is significant evidence to the contrary), weight-based stigma should never be used, under any circumstance, as it is utterly unethical [733, 734]. Instead of using stigma as a deliberate strategy, weight-related public health initiatives should be deliberately and proactively designing strategies that avoid stigmatising people in any way [37, 363, 473, 474, 734]. To this end, guidelines and principles for weight-related public health planning and programming have been developed.

In the set of Best Practice Principles for Community-based Obesity Prevention developed by King and Gill for the Collaboration of Community-based Obesity Prevention Sites [735], there is acknowledgement that ‘weight ... can be emotive and associated with stigmatization’ (p. 5) and ‘Obesity is a sensitive issue and it is important to minimise harm, avoid stigmatisation and victim blaming’ (p. 8). The authors propose two principles for practice that respond directly to this concern:

- There is clarity about the ways in which the program engages the community (p. 6).
- The program carefully considers how it frames the problem, so that it avoids stigmatisation, victim blaming and perpetuating unfair arrangements and promotes a perspective that reflects...
shared social responsibility. In most cases it is advisable to avoid using the term 'obesity' publicly and present initiatives as healthy eating and physical activity programs (p. 8).

MacLean et al. [468] propose nine strategies to specifically address weight-based stigma in public health planning and programming:

- Adopt multi-component environmental strategies rather than individual, behaviour change strategies.
- Evaluate for the effect of initiatives on stigma.
- Be aware of the potential impact of separating out the overweight/obese for targeted interventions at any intervention level.
- Provide training across sectors for professionals such as nurses, doctors, nutritionists, educators and social workers about stereotyping, as well as accurate information about obesity and obese people.
- Screen public health mass communication messages for stereotyping, blaming and misinformation; consider provision of messaging focused on positive self-images and stereotype reduction for obese people.
- Include programming efforts to prevent stigma in all interventions.
- Bring stakeholders to the table. This means meaningful involvement of obese and overweight people and, also, in the case of children, their parents, in finding solutions to stigmatizing program and policies.
- In programs crossing system levels and sectors, each segment of programming needs to be examined for coherence and consistency with non-stigmatizing messages and approaches.
- Layering of stigma must be considered. ... The complexity of system-level approaches, potentially over large population groups, require special attention to the issues of layering of stigma as well as equitable treatment and meeting needs of all, without stigmatizing individuals or groups (p. 91-92).

None of these strategies were evident in the weight-related public health initiatives analysed in this study.

Numerous other unintended harms from weight-based public health initiatives have been raised in the literature, but the one that is most relevant to this study is increased inequity. This issue is addressed here because it was raised in the
documents analysed as a matter of importance, as discussed in the section above on equity within the values and principles related to worldview.

The potential for weight-based public health initiatives to result in greater inequality (and consequently greater inequity) was raised in the *Obesity Technical Report* in considering the imposition of a tax on ‘unhealthy’ food (p. 24). The concern was that this strategy would have an inequitable impact on families with low incomes. As described above, considerations for inequality (and to a lesser degree, inequity) were prevalent in the documents analysed. However the concern over the effect of this taxation proposal was the only acknowledgement of the role that the proposed strategies themselves may play in worsening inequality. The potential for obesity prevention and reduction initiatives to deepen inequalities has been raised by a number of others [10, 64, 474, 535, 543].

Unlike some other countries, there is no legislative requirement for Government policies to be subjected to Equality Impact Assessment. However, even where such requirements do exist, there is no guarantee that the potential of weight-related public health policies to deepen inequalities will be recognised. As per UK legislation, the *Healthy Weight, Healthy Lives Strategy* was subjected to Equality Impact Assessment (EIA) to determine if the strategy would promote equality of opportunity and does not adversely affect particular groups or communities, ‘with a focus on age, disability, race, religion and belief, gender and sexual orientation’ [736] (p. 2). The 2008 EAI report noted that there was limited research to draw on in conducting the assessment. Despite this noted lack of evidence, the report stated that the strategy ‘should be of some benefit to everyone’ (p. 9) and that the available evidence did not indicate that the strategy will have an adverse impact on particular groups within the community. The findings for the 2009 and 2010 Equality Impact Assessments were identical [737, 738]. Each of the three EIAs asked the question: ‘Is there public concern about actual, perceived or potential discrimination against a particular population group or groups in relation to excess weight?’ Each assessment determined that for every population group listed, the answer to this question was no. Given the
acknowledgement of stigmatisation and bullying of people based on body size in the
Strategy itself (albeit minimal), and the significant body of research detailing evidence
of weight-based discrimination and its unequal application across race and gender
categories, it is difficult to see how such an unequivocal negative response could have
been reached.

In 2011 the new conservative Government in England released Healthy Lives, Healthy
People: A call to action on obesity in England (Call to Action) [739]. As per the Equality
Act 2010, the Call to Action policy document was subjected to what was now called
‘Equality Analysis’ [740]. The Act requires analysis of the potential impact of policy on
three requirements of public authorities, including the need to:

- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by
  the Act.
- Advance equality of opportunity between people who share a protected characteristic and those
  who do not.
- Foster good relations between people who share a protected characteristic and those who do
  not [740] (p. 4).

The report on the equality analysis of the Call to Action on Obesity includes detailed
evidence of the distribution of overweight and obesity across a broad range of
characteristics including disability, sex, race, age, gender, gender reassignment, sexual
orientation, religion or belief, pregnancy and maternity, carers and socio-economic
status [740]. Following a description of the Call to Action policy, the report presents
the results of analysis of the impact of the policy on the three requirements described
above.

The equality assessment on the Call to Action on Obesity determined that the policy
would actually foster ‘greater equity in terms of the prevention and ‘treatment’ of
overweight and obesity’ (p. 15) and would have no detrimental effect on promoting
good relations between groups. Although the requirement to ask the question: ‘Is
there public concern about actual, perceived or potential discrimination against a
particular population group or groups in relation to excess weight?’ has been removed
from the equity assessment process, the finding regarding discrimination is essentially the same as the previous equality impact assessments. This section of the report notes that ‘There is some anecdotal evidence that discrimination against individuals who are overweight or obese may occur’ (p. 14-15). The lexical choice ‘some anecdotal evidence’ is a considerable understatement and presumably deliberate suppression of the significant quantity of scholarly research demonstrating evidence of widespread discrimination on the basis of body size in employment, education, housing, health care and society [363, 393, 398, 399, 405, 406, 741-747]. The equality assessment then concluded that the new policy would not have any adverse effects on discrimination, harassment and victimisation.

**Summary**

This section has presented and discussed the extent to which the health promotion values and principles focused on non-maleficence were evident in the documents. Through **boundary critique** I identified that there was a very weak explicit non-maleficence discourse evident in the documents with a small number of potential harms noted. The weakness of this discourse was not reflective of the strength of evidence in the literature relating to the noted potential harms. In addition, a range of other harms were not acknowledged at all resulting in the absence of other non-maleficent discourses. The most notable of these was the almost complete absence of stigma discourse. Despite this absence, there was nonetheless, strong evidence of proposed and existing stigmatising strategies. There was also evidence that the proposed and existing strategies may contribute to deepening inequalities and inequities. Through **reflective practice** using the health promotion values and principles continuum as a critical questioning tool, I determined that the **scope of potential maleficence was not fully considered**, and that the weight-centred public health initiatives were therefore strongly consistent with **traditional health promotion**.
8.2.5 Basis for practice

Description

The focus of these values and principles is on the basis for practice in the weight-related public health initiatives. Public health strategies that are based on evidence of need and effectiveness, and sound theoretical foundations are consistent with modern health promotion. Public health strategies that are based on limited or selective use of evidence are consistent with traditional health promotion.

Result and discussion

Through the analysis I identified a strong, objectivist ‘evidence of need’ discourse, a strong ‘need for evidence’ discourse, and the absence of discourse on theoretical foundations related to the basis for practice.

There was a strong discourse throughout the documents regarding the evidence of need for public health strategies to address obesity. A significant body of data has already been presented demonstrating the epistemological, health paradigmatic and scientific framing of the evidence of need, and will not be repeated here. I will however reiterate that the discursive practice of claims-making was used to present a significant body of evidence in the documents about the prevalence, trends and implications of the current state of obesity. These claims were presented as solid, incontestable and uncontested facts. The genre of the text used in the sections of the documents describing these ‘facts’ was predominantly scientifically formal, a textual practice that also contributed to the discursive practice of reinforcing the authority of the claims being made.

However, when the documents turned to the evidence of effectiveness of the public health strategies proposed to address the issue, the level of certainty of the discourse diminished substantially. Again I have already presented data related to this discourse so will not present these data again. I will reiterate that there was a strong reliance on the discursive practice of using experts and scientific sources for authoritative claims-making. However the discursive practices of hedging using lower modality verbs were
also present; rather than evidence showing or demonstrating, evidence suggested or was still developing, there were gaps in the evidence ‘jigsaw’, and further debate, research, evaluation and evidence were required. In particular, there was recognition of uncertainty of the effect of the proposed public health strategies, and as such the documents called for more surveillance, monitoring, evaluation and ‘learning by doing’. Just two of many references to the immature evidence base noted:

> It will be important to continue developing the evidence base through research, evaluation, monitoring and surveillance, but this should not be a cause for delayed action (Obesity Technical Report p. 19).

> It (the National Preventative Health Strategy) also sets out a clear approach of ‘learning by doing,’ supported by close monitoring and evaluation, where the international evidence is still maturing around interventions – especially in combating obesity (Taking Preventative Action p. 4).

The third component of these values and principles that focus on the basis for practice relates to the extent to which the proposed or implemented public health strategies have sound theoretical foundations. There was an almost universal lexical absence of references to theory and therefore theoretical discourse in the documents. The Obesity Technical Report included a summary of a review from the literature on workplace health promotion programs in which a list of components of successful programs had been compiled. One of those components was that the strategies in successful programs were ‘based on theory (for example, on improving self-efficacy, stage of change etc)’ (Obesity Technical Report p. 101). This was the only explicit reference to theory and there were no implicit references to theory or the theoretical foundations of proposed or existing public health strategies anywhere in the documents. Not even the background sections on the existing social marketing campaigns provided any information about their theoretical foundations.

The language of evidence-based health practice has spread from its origins in evidence-based medicine to evidence-based public health and health promotion [620, 748-750]. The International Union for Health Promotion and Education has a Global Programme on Health Promotion Effectiveness [751]. As Carter et al. [37] note, ‘The
notion of evidence itself is now highly valued: it would be absurd to argue that health promotion should not be informed by evidence’ (p. 468). Tannahill [50] argues that there is an ethical imperative for health promotion and public health to ‘make decisions based on the explicit application of ethical principles, using available evidence and theory appropriately’ (p. 380).

What is not always apparent in discussions about evidence is that the generation and evaluation of evidence is inherently based on values and principles; evidence of need, evidence of effectiveness, and evidence of theoretical foundations [37, 50, 546]. All forms of evidence rely on the articulation of what counts as evidence, and what counts as evidence depends on worldview, epistemological position, scientific approach and health paradigm. The positions adopted within each of these values will determine what types of evidence are valued, and what types of evidence are rejected as lacking. The acknowledgement of the immaturity of the evidence of effectiveness of weight-related public health strategies in the documents is echoed by many scholars who have argued that the evidence of need and evidence of effectiveness are both weak and do not justify many of the strategies being implemented in the name of obesity reduction and prevention [2, 20, 26, 57, 107, 128, 423, 425, 429, 441, 443, 446, 448-451, 660]. As Carter et al. [37] conclude, evidence-based practice is:

...especially problematic for health promotion, not least because it is social and political, involving contests between community, corporate, bureaucratic, and political stakeholders (Carter et al. p. 465).

Summary

This section has presented and discussed the extent to which the health promotion values and principles focused on the basis for practice were evident in the documents. Through boundary critique I identified that there was a strongly objectivist discourse on the evidence of need for public health strategies to address obesity. Significant tracts of text were devoted to making the case for obesity as a major public health issue, but there were no alternative perspectives or evidence presented that challenged or questioned this discourse and therefore the evidence presented was
selective. There was a strong discourse on the need for evidence of effectiveness of public health strategies, however in this case the discourse acknowledged that the evidence base was limited, immature and weak, and as such there was a requirement to learn by doing. There was a complete absence of discourse about the theoretical base for the proposed and currently implemented public health strategies. Through reflect practice using the health promotion values and principles continuum as a critical questioning tool, I determined that the proposed and currently implemented public health strategies were based on the limited use of evidence and theory and that the weight-centred public health initiatives were therefore strongly consistent with traditional health promotion.

This concludes the section on the ethical values and principles related to what public health strategies are proposed and currently implemented in the weight-related public health initiatives. The section addressed the value and principles in the health promotion values and principles continuum that focused on participation in the change process (active or passive), personal autonomy (autonomy respected or autonomy restricted), beneficence (maximised or limited), non-maleficence (priority consideration or not fully considered) and basis for practice (comprehensive use of evidence and theory or limited use of evidence and theory).

8.3 Technical values and principles

This section focuses on the technical health promotion values and principles related to what public health strategies are proposed and currently implemented in the weight-related public health initiatives. Technical health promotion values and principles in the values and principles continuum focus on the strategy approach, governance and decision-making, professional role and impact evaluation indicators in the weight-related public health initiatives.
8.3.1 Strategy approach

Description
The focus of these values and principles is on the strategy approach in the weight-related public health initiatives. A portfolio approach involving the use of multiple strategies operating at multiple levels from individual through to population, in multiple settings is consistent with modern health promotion. A limited approach involving the use of a one or two strategies operating at one or two levels is consistent with traditional health promotion.

Result and discussion
Through the analysis I identified a ‘multi-strategic, multi-level, multi-setting’ discourse tempered by a ‘enable and disable health behaviours’ discourse related to the strategy approach.

In the section above on the causes of body weight, I identified a mixture of discourses regarding the determinants of body weight. A range of textual and discursive practices were evident in the construction of these discourses. There was a very weak discourse on the biological determinants but a very strong discourse on individually controllable behavioural determinants, with a sole focus on two behaviours – unhealthy eating and physical inactivity. There was a moderately strong discourse on the environmental determinants that shape unhealthy eating and physical inactivity behaviours, and a weaker discourse on the controllability of these environments. There was a relatively weak discourse on the complex inter-relationships between the determinants of body weight. The discourses on determinants of weight laid the foundation for discourses on the strategy approach to addressing the determinants. However the discourses on the strategy approach were somewhat different to those on the determinants of weight.

As expected, given the very strong discourse on controllable behaviours as determinants of body weight, the public health strategies proposed and currently implemented had a similarly strong discourse on controlling such behaviours. This was
particularly evident in the social marketing campaigns, where the sole focus was on reducing unhealthy eating and increasing physical activity. The most notable shift in discourse from determinants to strategies was in the recognition of complexity. As noted already, there was a relatively weak discourse on the complex inter-relationships between the determinants of body weight, but in turning to the strategic response, a much stronger discourse on the need for multiple strategies operating at multiple levels in multiple settings was identified. This was demonstrated through lexical choices and repetition and the discursive practice of modal verb use. Lexical terms that were used repeatedly included ‘complex’, ‘comprehensive’, ‘multiple/multi/multitude’, ‘structural’, ‘settings’, ‘all levels’ and ‘cross-sectoral’. For example:

...to address the underlying environmental and lifestyle causes of overweight in young people, a cross-sectoral, multi-settings approach will be needed (Healthy Weight p. 2).

Multiple social, economic, technological, environmental and political factors interact to influence trends in population obesity and overweight. The majority of these are outside the control of individuals and families. Effective action must therefore address obesity at a structural level, as an environmental, political and cultural problem (Obesity Technical Report p. 15).

Interventions to counter obesity are premised on the need for simultaneous action at the structural environment – through legislation and regulation – and at the local community and individual level. The notion of a ‘settings’ approach becomes particularly important. The ‘setting’ has long been seen as a way of reaching a captive audience, providing entry points and access to specific populations as well as channels for delivering health promotion programmes (Obesity Technical Report p. 34).

High modality epistemic verbs indicated the certainty of the requirement for a complex set of strategies: a cross-sectoral, multi-settings approach will be needed; significant changes are required; effective action must address obesity at a structural level; a ‘settings’ approach becomes particularly important; the complexity and multitude of ... determinants demand a long-term, comprehensive and well-funded response; action is required (Italics added).
The documents were analysed for evidence of the degree to which the strategy approaches responded to the deontic demand for complex, multi-strategic, multi-layer, multi-setting approaches. (As the social marketing campaigns were specific initiatives utilising one strategy, they were not included in this analysis.) Through the analysis I identified that the strategy approaches were strongly reflective of this demand. This approach was recommended in the Ottawa Charter for Health Promotion [30] and reinforced by subsequent WHO declarations and statements [519, 597, 598, 622, 688, 696, 752, 753]. However, there was a complete lexical absence of references to the Ottawa Charter in any of the documents. The Charter was cited as the source of the definition of health promotion, but references to Charter’s five action areas that guide the development of the strategy approach were completely absent. This was consistent with the backgrounding of the discipline of health promotion in favour of the preventative health agenda, as discussed above.

Nonetheless, the health promotion related public health strategies proposed and currently implemented in the initiatives were examined according to this framework. The five action areas of the Ottawa Charter for Health Promotion [30] are: build healthy public policy; create supportive environments; strengthen community action; develop personal skills; and reorient health services.

The action agenda in Healthy Weight proposed 73 actions across nine settings complemented by four national strategies (p. 5). The settings for action were: child care; primary and secondary schools; primary care services; family and community care services; maternal and infant health; neighbourhoods and community organisations; workplaces; food supply; and media and marketing. The national strategies were: coordination and capacity building; evidence and performance monitoring; whole-of-community demonstration areas; and support for families and community-wide education.

The strategies proposed addressed four of the five action areas of the Ottawa Charter, at multiple levels from the individual through to the population. The strongest emphasis was on creating supportive environments where 39 of the 73 actions were
focused. Strategies proposed included the creation and dissemination of guidelines, codes of practice and other tools, and strategies focused on environmental change such as transport to school. There was a moderate emphasis on developing personal skills with 17 of the 73 actions proposing strategies such as social marketing campaigns, education resources and training and development. There was also a moderate emphasis on building healthy public policy with 14 actions proposing strategies such as joint Calls for Action from Government Ministers, and the development of policies and standards. Half of the strategies proposed to build healthy public policy were focused on standards for performance monitoring and evaluation. Four of the actions proposed strategies for reorienting health services. None of the actions proposed strategies for strengthening community action, at least not at the grass-roots community level.

*Weighing it up* proposed 20 recommendations, of which 13 were proposals for public health strategies relevant to the discipline of health promotion. Strategies were proposed for the Government, industry and communities at multiple levels in multiple settings. The strategies proposed addressed four of the five action areas of the Ottawa Charter, at multiple levels from the individual through to the population. The strongest emphasis was on creating supportive environments, with seven of the 13 recommendations focusing on this action. Strategies included creating guidelines and codes of practice and supporting workplaces and after-school programs. Three of the recommendations were for strategies to build healthy public policy, including as the use of taxation to enhance affordability and accessibility of fresh, healthy food and physical activity, regulations governing the reformulation of food products and the safety and efficacy of weight loss products and programs. Three of the recommendations were for strategies to develop personal skills, including two related to enhancing social marketing campaigns and one related to teaching children and adults about the benefits of growing and eating fresh fruit and vegetables and skills in preparing healthy and nutritious meals. This recommendation was also related to strengthening community action, as it was focused on supporting community
initiatives to undertake these skills development strategies. There were no recommendations for public health strategies to reorient health services.

The *Weighing it up Government response* addressed each of the 20 recommendations in *Weighing it up* directly. The Government agreed fully, in part or in principle to 12 of the 13 recommendations for public health strategies related to health promotion. The only recommendation that was not agreed to was investigating the use of taxation incentives to improve the affordability of fresh, healthy food and access to physical activity programs. The strategies agreed to were therefore still consistent with four of the five Ottawa Charter action areas with heavy emphasis on creating supportive environments, at multiple levels in multiple settings.

The *National Preventative Health Strategy* implementation plan for obesity proposed 27 actions across 10 key action areas at multiple levels from individual to population in multiple settings. All but two of these actions proposed public health strategies related to health promotion. Two of the actions proposed public health strategies related to population surveillance. Three of the actions proposed multiple strategies and some proposed two strategies within the one action. As with the other documents, actions proposing public health strategies focused on creating supportive environments were the most common, with 12 of the 26 actions proposing strategies such as developing a joint agreement between the Government, the food industry and non-Government organisations on the production and promotion of ‘unhealthy’ foods, introducing food labelling, supporting schools and workplaces to develop settings based programs, and supporting the development and implementation of a National Breastfeeding Strategy. There were nine actions proposing strategies to build healthy public policy such as developing accreditation standards for providers of workplace health promotion programs, establishing a Prime Minister’s Council on Active Living and commissioning a review of economic policies and the taxation system. The three multi-strategic actions focused on funding, implementing and promoting multi-component community based programs including in communities with low socioeconomic status and Indigenous communities. These were the only action areas that implied the strategy of
strengthening community action. Given the strong discourse on individual responsibility in the documents, it was surprising that there were only two actions that proposed strategies focused on developing personal skills. These actions included funding national social marketing campaigns and a national program to alert pregnant women and those planning pregnancy. The second of these strategies was proposed to be implemented through primary health care services, and so also represented a strategy to reorient health services. The three other actions that proposed strategies involving the reorientation of health services included providing resources for brief interventions in the primary healthcare setting for people in low-income communities, contributing to relevant national policies such as the National Primary Healthcare Strategy, and strengthening antenatal, maternal and child health systems for Indigenous communities.

_Taking Preventative Action_, the Government response to the _National Preventative Health Strategy Roadmap_, addressed each of the proposed actions in the implementation plan for obesity. Of the 25 actions proposing public health strategies related to health promotion, the Government agreed to 19, and rejected or noted six. The strategies rejected by the Government included the establishment of a Prime Minister’s Council for Active Living and a national framework and partnership agreement for active living, the commissioning of a review of economic policies and the taxation system, and the phasing out of marketing of energy dense, nutrient poor food and beverages in children’s television viewing times. All other actions proposing strategies were agreed to. As such the strategy approach was still multi-strategic at multiple levels in multiple settings.

In summary, the three sets of proposed strategies – _Healthy Weight_, _National Preventative Health Strategy Roadmap_ implementation plan for obesity, and _Weighing it up_ – together with the Government responses to the latter two, reflected a multi-strategic approach at multiple levels in multiple settings. Strategy portfolios were dominated by strategies focusing on creating supportive environments, with strategies for building healthy public policy, developing personal skills and reorienting health
services evident in moderation. Strategies for strengthening community action were limited, and strategies specifically related to the review or use of taxation and economic policy were all rejected by the Government. There were no references to the Ottawa Charter as the guiding framework for the development of strategy portfolios.

Nutbeam [754] also noticed the conspicuous absence of any reference to the Ottawa Charter in a paper that had appeared in Nature describing strategies to address the challenges presented by chronic non-communicable diseases. The strategies were grouped in a manner similar to the five action areas of the Ottawa Charter and yet the charter was not referenced in the paper or cited as a source of the framework. Nutbeam contended that ‘This may be an act of neglect on the part of the authors, or may simply be a product of the pervasive influence of the Charter and the compelling logic of its key strategies’ (p. 436). Nutbeam considers that the Ottawa Charter action areas now, as a matter of course, provide the framework for the development of responses to any major public health challenge [754].

Despite its lexical absence (or suppression) from the documents, the five action areas of the Ottawa Charter were nonetheless evident in the documents analysed. The Ottawa Charter [30] and subsequent statements and declarations on health promotion reinforced that the five action areas comprise a portfolio approach [519, 597, 598, 622, 688, 696, 752, 753]. To be effective, public health initiatives should include strategies addressing all five action areas at multiple levels in multiple settings. It is not sufficient to focus on just one or two of the action areas with a limited number of strategies, levels or settings [30]. One of the criticisms of traditional or conventional health promotion relates to the reliance on just one or two strategies, particularly those focusing on individual behaviour change and population wide social marketing [34, 599].

The strong emphasis in the documents on strategies to create supportive environments was consistent with Saguy’s sociocultural frame, in which the causes and solutions of obesity are framed around the obesogenic environment [457]. Jenkin et
al.’s analysis of industry and public health frames evident in the New Zealand Obesity Inquiry identified the obesogenic environment as the site of causation and solution in the public health frame [606]. However the public health frame in Jenkin et al.’s study extended the framing of causes and solutions into the social determinants of health. This result was in contrast to the results of this study, where there was no evidence of such a broader framing of solutions in the public health strategies.

The public health frame identified by Jenkin et al. also included individual deficits such as lack of will power, responsibility and knowledge, as explicit ‘non-causes’, and therefore education or information strategies used in isolation were highlighted as ‘non-solutions’ [606]. None of the public health strategy portfolios proposed in this study recommended the use of education or information strategies alone, however there was considerable investment proposed for social marketing and other strategies designed to educate and inform.

In this study I identified that the strategies designed to create supportive environments dominated the proposed strategy portfolios. These strategies were designed specifically to impact on people’s choices, rather than other sociocultural or environmental determinants of body weight or even the broader social determinants of health [606]. This finding was consistent with Saguy’s, [457] who, in her studies of news media and scientific media coverage of obesity, identified the same framing of strategies to address the obesogenic environment in order to influence behaviour. Saguy also noted that in comparative studies of obesity framing in the USA and French media, she identified that the French media placed more emphasis on the social determinants of obesity. Raphael has also noted that although there is less explicit discourse about the social determinants of health in France than in countries such as Canada, there is more evidence of action to address these structural determinants [755]. However, even in a country with a better track record of addressing the social determinants of health, Saguy’s study found that obesity policies being proposed (at least in the media), tended to focus on changing the environment in order to change individual behaviour. Perhaps this difference has arisen because the French media
have focused on discussing issues in ways that are more relevant to readers, albeit in a more sociocultural view than the US media [756], whilst the French Government had focused on enacting policies that are more likely to impact on inequity within the population [755]. As discussed, in this study I identified that strategies focusing on changing the environment were ultimately focused on changing individual behaviours. This type of strategy was consistent with the neoliberalist ideological discourse evident in many places throughout the documents, which ultimately returns the focus of responsibility to the individual.

In this study I identified that there was a moderate number of proposed strategies focused on building healthy public policy. Of these, a small number were related to the review or use of taxation and economic policy, all of which were rejected by the Government. This finding was partially consistent with the ‘individual choice and responsibility’ frame identified by Kwan in her analysis of obesity framing in the USA [407]. In this frame the proposed solutions to obesity were explicitly against laws that would tax food choices. Jenkin’s study also identified that the industry submissions to the inquiry presented taxes on foods as an explicit ‘non-solution’.

Despite the rejection of taxation as a strategy by the Australian Government, the strategy portfolios in this study included other proposed strategies to build healthy public policy such as regulation and standards related to food composition, labelling, availability, advertising and marketing. These strategies were considered explicit ‘non-solutions’ in the industry frame identified by Jenkin et al. [606] and the choice and responsibility frame identified by Kwan [565]. In contrast they were included in the public health frame identified by Jenkin et al. [606], the health frame identified by Kwan [565], and the sociocultural frame identified by Saguy [457]. Research into consumer perspectives on the effectiveness of public health strategies for obesity prevention and reduction has highlighted support for regulation and standards. In Thomas et al.’s study of the views of obese women, about two thirds of participants thought that regulation was one of the most effective solutions for the ‘obesity epidemic’, and this view was stronger in women than men [473].
Returning to the overall approach, the multi-strategic, multi-level, multi-setting approach identified in the strategy portfolios in this study was consistent with the public health frame identified by Jenkin et al. [606] and the health frame identified by Kwan [565].

**Summary**
This section has presented and discussed the extent to which the health promotion values and principles focused on the strategy approach were evident in the documents. Through boundary critique I identified that there was a strong discourse on strategies to reduce unhealthy eating and physical inactivity, and increase healthy eating and physical activity. However this discourse reflected a more complex and layered position than the discourse about the determinants of body weight. Proposed strategy portfolios included strategies across most or all of the five action areas of the Ottawa Charter for Health Promotion, with strategies focused on creating supportive environments dominant. Strategy portfolios included strategies operating at multiple levels from individual and family levels, through to group, community and population levels. In addition, strategy portfolios included strategies operating in multiple settings such as schools, workplaces and local communities. Ultimately though, all strategies were focused on changes that enable healthy behaviours and disable unhealthy behaviours. No strategies focused on the social determinants of health. Through reflective practice using the health promotion values and principles continuum as a critical questioning tool, I determined that the proposed and currently implemented public health strategies constituted a portfolio of multiple strategies at multiple levels in multiple communities, but were focused on two behavioural determinants of body weight. As such I determined that the weight-centred public health initiatives were somewhat consistent with modern health promotion.

**8.3.2 Governance and decision-making**

*Description*
The focus of these values and principles is on governance and decision-making in the weight-related public health initiatives. Using models of governance that facilitate
active and meaningful participation by those impacted by the health issue in collaborative decision-making about the public health strategies designed to address the health issue is consistent with modern health promotion. Imposing decisions from outside and excluding those impacted by the health issue in decision-making about public health strategies designed to address the issue is consistent with traditional health promotion. These values and principles are focused at a higher level than the values and principles focused on participation in the change process that were explored in an earlier section. The focus here is on the decisions made about the strategies themselves and the way they are developed, implemented and evaluated.

Result and discussion

In the analysis I identified a very weak ‘citizen power’ discourse, in which governance and decision-making were collaborative and owned from within the community. This was tempered by the discourse void related to governance and decision-making in the remainder of the text. The result was an implied discourse in which governance and decision making were imposed from outside.

As described in section 8.2.1 above on the ethical values and principles related to participation in change processes, the ladder of citizen participation developed by Arnstein [698] was used to determine the levels of participation in the proposed and currently implemented public health strategies. Levels of participation in the top category of the ladder, which Arnstein referred to as citizen power, include partnerships, delegated power, and citizen control. Levels of participation in this category are relevant to this section on governance and decision-making. However, for the sake of cohesion and clarity, the findings related to participation in both the change process and governance and decision making were presented together in section 8.2.1. As described in that section, the intention was to present a brief summary of the findings here rather than reproduce them, and refer back to that section for the full findings.
To recap then on the findings relevant to this section, the only public health strategies that reflected any of the top rungs of the citizen participation ladder within the citizen power category were the proposed strategies in the Roadmap that implied a redistribution of power to Indigenous communities. Whether these strategies were more reflective of delegated power or full community control was difficult to assess, but the proposed public health strategies were certainly in the category of citizen power.

**Summary**

This section has reiterated the results relating to the extent to which the health promotion values and principles focused on governance and decision-making were evident in the documents as presented in the section above on participation in the change process. Through boundary critique I identified that there was only one proposed strategy that implied citizen power in governance and decision-making. Through reflective practice using the health promotion values and principles continuum as a critical questioning tool, I determined that the proposed and currently implemented public health strategies suggested that governance and decision-making was imposed from outside and excluded those impacted by the health issue in decision-making about public health strategies designed to address the issue. As such I determined that the weight-centred public health initiatives were strongly consistent with traditional health promotion.

### 8.3.3 Professional role

**Description**

This section focuses on the values and principles related to the role of professionals in the weight-related public health initiatives. As a public health or health promotion practitioner, a professional role that is characterised by working with people as an ally, being ‘on tap’ or available to people, and working as an enabler, mediator and advocate is consistent with modern health promotion. A professional role that is characterised by working from a top-down position of authority and working on people as an expert is consistent with traditional health promotion.
Result and discussion

Through the analysis I identified a ‘lexically absent but expertly present’ discourse related to the professional role.

Throughout the documents there was an almost complete absence of references to the very existence of a public health or health promotion workforce, much less the nature of the roles that professionals that make up such a workforce might play. Nonetheless, through the textual practices of word connotations, overlexicalisation, lexical suppression and presupposition, a discourse about the professional role was constructed in the documents. The ‘lexically absent but expertly present’ discourse about the professional role of health promotion and public health practitioners in the weight-related public health initiatives failed to mention these practitioners explicitly, but at the same time assumed their presence and roles as experts in the implementation of the initiatives.

Consistent with the dominance of the preventative health discourse in the Healthiest Country documents noted earlier, discussion about who would implement the public health strategies focused in these documents on the ‘preventative health workforce’. ‘Preventative health workforce’ was a word connotation used repeatedly (overlexicalisation) to refer to the workforce responsible for implementing the obesity and disease prevention agenda. This practice was only evident in the Healthiest Country documents, and was accompanied by the lexical suppression of references to public health or health promotion professionals or workforce. There was no explanation or definition provided for the term preventative health workforce. The combination of these practices led to presupposition that ‘preventative health workforce’ was a current and useful term for describing the collection of professionals responsible for implementing the National Preventative Health Strategy.

The National Preventative Health Strategy Roadmap discussed the need for this ‘preventative health workforce’ to have both the competence and the capacity to provide the preventative health services required. However the Roadmap noted that
there had not been a national audit or review of the preventative health workforce and as such it was still unclear who was actually classified as a member of the preventative health workforce and where they were located. In this discussion the preventative health workforce was referred to as ‘(clinical and non-clinical)’ (Roadmap p. 78). The parenthetical differentiation between clinical and non-clinical workers may have been an indication that public health and health promotion professionals were considered to be part of the non-clinical section of the preventative health workforce, but there was no further explanation or discussion about how this workforce was constituted. The only clue was evident in key action area 6 of the National Preventative Health Strategy implementation plan for obesity: ‘Strengthen, upskill and support the primary healthcare and public health workforce to support people in making healthy choices’ (Roadmap p. 152). This suggested that the ‘preventative health workforce’ was comprised of the primary healthcare workforce and the public health workforce.

However, even this minimal acknowledgement of the existence of a public health workforce made up of public health and health promotion professionals was eliminated in the details of the action which focused exclusively on GP and allied health professionals in primary healthcare services. As Nutbeam noted with respect to the absence of acknowledgment of the Ottawa Charter [754], the absence of acknowledgment of the public health and health promotion workforce may have been an act of neglect on the part of the authors, or may simply be a product of the pervasive influence of public health and health promotion such that the presence of a workforce of professionals does not even need to be acknowledged. Perhaps there was an assumption that public health and health promotion professionals would naturally and automatically be involved in all of the proposed strategies. Or perhaps this was another example of the social practice of ideological suppression, whereby the health promotion and public health professional disciplines and workforces were invisibilised by the powerful biomedically defensive forces of preventative health. Whatever the reason, the documents were silent on the role that public health and health promotion professionals were expected to play in the weight-related public health initiatives.
If references to public health and health promotion professionals within a public health workforce were absent, was there any indication of the role of such professionals evident in discussion about the role of public health organisations or professional associations in the proposed strategies? To answer this question I searched the lists of organisations nominated as lead agencies or partners in the 27 actions of the National Preventative Health Strategy implementation plan for obesity. Various industries, organisations and associations were nominated as partners in the proposed actions including primary healthcare, health research, education (at all levels), non-Government, sporting, building, transport, marketing, advertising, food and beverage, horticulture, agriculture, planning and development, retail, manufacturers, health insurance, employer, union, consumer, community and media industries, organisations and associations. Public health and health promotion professionals work in many of these sectors or organisations, particularly federal, state and local Governments, large non-Government health-related organisations and universities. However it was not possible to identify which organisations might be categorised as public health organisations. The search for relevant organisations nominated as partners was therefore limited to organisations explicitly named as ‘public health’ or ‘health promotion’ organisations or professional associations. Eight of the 27 actions included ‘public health organisations’ ‘public health groups’ and/or ‘health promotion organisations’ in the list of partners. A further three of the four actions for key action area 10: ‘Build the evidence base, monitor and evaluate effectiveness of actions’ included ‘organisations/groups involved in public health research’ among the list of partners. Specific public health or health promotion professional associations were not listed. ‘Professional organisations’ were included for one action, but as there was no example provided, it could not be determined if this referred to associations of public health and/or health promotion professionals. Assuming this was the intention, 12 out of the 27 actions referred to public health or health promotion organisations as partners.

This analysis provided some indication that there was an intended role for health promotion and public health professionals at least through the health promotion and
public health organisations that the workforce may be employed in. So clearly there was a role, but what was the nature of that role? How were these professionals to operate? Were they expected to work with people as an ally and resource, playing the role of enabler, mediator and advocator, or were they expected to be experts who worked from a top-down position of authority? Unfortunately there were no further data to help answer this question directly, and as such I turned to the results of previous sections to see if they could indirectly answer these questions. Most of the values and principles provided assistance in elucidating the expected professional role of health promotion and public health practitioners.

The program basis evident in the proposed and currently implemented strategies was determined to be predominantly deficit-based, focusing on the avoidance of unhealthy behaviours. This would require experts to identify the unhealthy behaviours and highlight the risk that they pose. The strategies were determined to be predominantly disabling and disempowering, power was determined to be concentrated within existing structures rather than redistributed, participation in change processes was determined to be mid-level tokenism, participation in governance and decision making was determined to be very low level with decisions imposed from outside, and there were very few strategies proposed to strengthen community action. (See the sections for each of these results for relevant discussion.)

**Summary**

This section has presented and discussed the extent to which the health promotion values and principles focused on the professional role of health promotion and public health practitioners were evident in the documents. Through boundary critique I identified the construction of the ‘lexically absent but expertly present’ discourse about the professional role of health promotion and public health practitioners in the weight-related public health initiatives. The construction of this discourse resulted from the backgrounding of health promotion and public health professionals and the associated workforce in concert with the privileging of the preventative health workforce. The roles of health promotion and public health professionals in the
proposed and currently implemented public health strategies were not explicit – lexically absent – but were strongly implied through other aspects of the strategies. Through **reflective practice** using the health promotion values and principles continuum as a critical questioning tool, I determined that health promotion or public health professionals would be **working on people as an expert**, top-down from an authoritative position in the proposed and currently implemented public health strategies. As such I determined that the weight-centred public health initiatives were strongly consistent with **traditional health promotion**.

### 8.3.4 Impact evaluation indicators

**Description**

The focus of these values and principles is on the impact evaluation indicators in the weight-related public health initiatives. Impact evaluation assesses the extent to which the objectives of the initiative have been achieved. It focuses on the more immediate or medium term factors that contribute to the achievement of the goal of the initiative, which usually has a longer time-frame [757]. Outcome evaluation focuses on the extent to which the goal of the initiative has been achieved [757]. However there is no single, set terminology used in program planning, and so a variety of terms are used for the various levels of evaluation. In this analysis, the concept of an objective as a short to medium term change in a factor that contributes to a larger, longer term change was used to determine what the impact evaluation of the weight-related public health initiatives was focused on.

**Modern health promotion** values sustainable changes to the **determinants of health**, and therefore focuses the attention on assessing the changes in factors that enable people to increase control over the determinants of health and the impact evaluation indicators reflect this. In contrast, **traditional health promotion** impact evaluation focuses on assessing changes in **rates of diseases and their behavioural risk factors** and the impact evaluation indicators reflect this.
**Result and discussion**

Through the analysis I identified the ‘unhealthy behaviours and disease’ discourse related to impact evaluation indicators.

Throughout all of the documents there was a relatively stable discourse on impact evaluation indicators focused on disease and risk factors. This discourse was constructed through the **textual practices of genre, presupposition, lexical absence, lexical suppression and word connotations**. The **genre** used throughout the documents when discussing evaluation was **formal and programmatic**, involving the use of terms from program management such as goals, objectives, monitoring, evaluation, performance indicators and measures. The use of such terms indicates authority and expertise and conveys a **presupposition** that such terms are universally defined and understood, and that their use is uncontested. The **lexical absence** of other views related to evaluation supported this presupposition.

In *Healthy Weight*, there was **lexical absence** of general discussion about evaluation. However the document included a range of performance indicators across three levels – strategic intent, goals, and outcomes sought – which indicated a **presupposition** that evaluation was important. As discussed earlier, the ‘strategic intent’ of the *Healthy Weight* action agenda was to ‘Assist Australians to enjoy the highest levels of good health in the world by promoting healthy weight’ (*Healthy Weight* p. 1). Five ‘goals’ for the action agenda were listed. Although named as goals, these were consistent with the concept of objectives described above, and so were included in the analysis of the focus of impact evaluation. The goals were focused at multiple levels, and included changes in: prevalence of overweight and obesity in children and young people; proportion of children and young people with adequate healthy eating and physical activity; levels of knowledge, skills, responsibility and resources; social and environmental determinants of behaviours; and everyday settings that support healthy weight.
In addition to the strategic intent and goals for *Healthy Weight*, a number of ‘outcomes sought’ were listed for each of the sets of strategies. As with the ‘goals’, these ‘outcomes sought’ were more consistent with the concept of objectives, and so were also included in the analysis of the focus of impact evaluation. As per the strategies in *Healthy Weight*, the outcomes primarily focused on changes to the environment; for example the outcomes sought for strategies focused in neighbourhoods and community organisations included:

- Increased safe, active play and active travel/transport in neighbourhoods by young people.
- Improved availability and promotion of healthy foods and physical activity for young people and families through community groups and organisations.
- Improved quality and location of physical and service infrastructure to support healthy eating and active living.
- Improved built environment that is more supportive of physical activity, active living and healthy eating (*Healthy Weight* p. 12).

A small number of outcomes sought focused on changes in assumed antecedents of behaviour:

- Increased knowledge and skills amongst employed parents and potential parents about the importance of healthy eating, active living and healthy weight (*Healthy Weight* p. 13).
- Increased knowledge, skills, attitudes and intentions of young people regarding their levels of physical activity and healthy eating (*Healthy Weight* p. 17).

Only two of the outcomes sought focused on changes in rates of behaviour:

- Increased proportion of women of childbearing age and fathers, who undertake healthy eating and active living for healthy weight.
- Increased proportion of infants exclusively breastfed to six months of age, and to 12 months and beyond with appropriate complementary foods (*Healthy Weight* p. 11).

Therefore across the goals and outcomes sought, the impact evaluation indicators were:

- Rates of overweight and obesity in children and young people
- Environments and settings that support healthy eating and physical activity
- Behaviours, specifically self-surveillance of weight for young people and adults, and adult-surveillance of weight for children, healthy eating, breastfeeding and physical activity
- Skills related to healthy eating and physical activity
- Knowledge and attitudes related to healthy weight, healthy eating and physical activity.

In the *Healthiest Country* documents, there was a strong focus on evaluation which emphasised the need for significant investment and expansion of population health surveillance, and monitoring and evaluation of obesity prevention initiatives in order to determine their impact and ‘learn by doing’. Despite the recognition of the limited evidence of effectiveness, the *National Preventative Health Strategy* nonetheless proposed an extensive range of performance indicators and measures for the actions proposed in the obesity implementation plan. These indicators were based on *presuppositions* about the behavioural causes of and solutions to obesity and the role of the environment in influencing these behaviours. The *lexical suppression* of other causes discussed above translated into the *lexical absence* of strategies addressing other causes and therefore any evaluation indicators.

The overall aim of the *Strategy* was to make Australia the healthiest country by 2020. The performance indicators for the strategies included in the obesity implementation plan were presented at three levels: health outcome measure, determinants of health measures, and program and system performance measures. These categories translate to measures for outcome, impact and process evaluation. The performance indicators for the health outcomes sought from the *Strategy* were deaths attributable to overweight and obesity, and hospital separations for overweight and obesity. Impact evaluation indicators focused on the determinants of health were:

- Proportion of adults and children overweight or obese
- Proportion of adults and children eating sufficient daily serves of fruit and vegetables
- Proportion of adults insufficiently physically active to obtain a health benefit
• Proportion of people walking, cycling or using public transport to travel to work or school
• Proportion of babies breastfed for six months or more (Roadmap p. 38).

Program and system performance measures were focused on the assumed determinants of these behaviours, including:

• Knowledge, attitudes and awareness of risks associated with overweight and obesity
• Recall of social marketing campaigns for obesity
• Proportions of overweight or obese people receiving brief interventions in primary healthcare settings
• Children’s exposure to advertisements for EDNP food and beverages
• Food price disparity in rural and remote areas
• Number and proportion of state and municipal plans that include steps to tackle obesity
• Number and proportion of schools with comprehensive programs in place that support healthy eating and physical activity
• Number and proportion of workplaces that have comprehensive programs in place to support healthy living
• Expenditure on research and evaluation relating to the control of overweight and obesity in Indigenous and other disadvantaged communities (Roadmap p. 38).

The proposed impact evaluation indicators in the National Preventative Health Strategy were therefore rates of overweight and obesity, and rates of behaviours, specifically healthy eating, breastfeeding, physical inactivity and physical activity.

The intended effects of the social marketing campaigns were articulated as an aim, short term objectives for the first phase (Measure Up) and long term objectives. The long term objectives of the campaign were to: encourage Australians to make and sustain changes to their behaviour, such as increased physical activity and healthier eating behaviours, towards recommended levels; and contribute to reducing morbidity and mortality due to lifestyle related chronic disease in Australian adults (Measure Up website). The aim of the Measure Up campaign was to raise appreciation of why people need to change their lifestyles (Measure Up website).
The short term objectives for the first phase of the campaign were to:

- Increase awareness of the link between chronic disease and lifestyle risk factors (poor nutrition, physical inactivity, unhealthy weight)
- Raise appreciation of why lifestyle change should be an urgent priority
- Generate more positive attitudes towards achieving recommended changes in healthy eating, physical activity and healthy weight
- Generate confidence in achieving the desired changes and appreciation of the significant benefits of achieving these changes (*Measure Up* website).

Specific objectives for the second phase (*Swap It, Don’t Stop It*) were not articulated as such, but the campaign materials stated that, ‘It encourages people to consider small nutrition and physical activity swaps they can make in everyday life that may benefit their health and wellbeing (*Swap It, Don’t Stop It* website). However the unstated but clearly evident objectives of both campaigns were to increase self-surveillance of body weight and waist measurement, and decrease unhealthy eating and physical activity.

In summary, the impact evaluation indicators for the social marketing campaigns were:

- Rates of obesity as defined by unhealthy waist measurement
- Rates of behaviours, specifically self-surveillance of waist measurement, unhealthy eating and physical inactivity
- Cognitive factors including knowledge, perceptions of susceptibility and severity, attitudes and self-efficacy.

The topic of evaluation was discussed in *Weighing it up*, with the requirement for increased attention to monitoring and evaluation noted. However through *lexical suppression*, there were no actions relating to monitoring or evaluation in the final recommendations. Two of the recommendations focused on increasing surveillance, one at the population level and one through General Practitioners. Neither of these recommendations for increased surveillance made any reference to the role of such
surveillance in evaluation. As such evaluation was completely absent from the recommended strategies.

The question of what will be evaluated in a health promotion program, and what will be considered evidence of effectiveness has been the subject of significant debate within the health promotion field [37]. Through this analysis I have identified that the impact evaluation discourse was relatively stable, though the scope of indicators varied considerably. Across all of the documents, the range of indicators relevant to impact evaluation included:

- Rates of overweight and obesity
- Rates of environments and settings that support healthy eating and physical activity
- Rates of behaviours, specifically self-surveillance of weight and waist measurement, adult-surveillance of weight for children, healthy eating, unhealthy eating, breastfeeding, physical activity and physical inactivity
- Skills in healthy eating and physical activity
- Cognitive factors including knowledge, attitudes, perceptions of susceptibility and severity, attitudes and self-efficacy related to healthy weight, risk for disease, healthy and unhealthy eating and physical activity and inactivity.

The indicators relevant to impact evaluation that were common across all documents that included such indicators were:

- Rates of overweight and obesity
- Rates of behaviours, specifically healthy and unhealthy eating, physical inactivity and physical activity.

There were a number of factors notable for their lexical absence from the lists of evaluation indicators at any level. As noted above, there were no indicators related to other causes of obesity. In addition, there were no references to the evaluation of
unintended consequences of the strategies, and no references to individuals playing a role in evaluation beyond being assessed for their understanding and recall of social marketing messages and changes in their awareness, knowledge, attitudes, intentions, behaviours and body weight. In addition there were no references to evaluation of social determinants of health. The presupposition or taken for granted position was that impact evaluation needed to focus on rates of overweight and obesity and rates of the behaviours presupposed to cause overweight and obesity.

As noted repeatedly by the Healthiest Country documents, monitoring and evaluation of weight-related public health initiatives is essential. The reason cited by these documents is to build the evidence base related to evidence of effectiveness. However there are other reasons why evaluation is important. Carter et al. [37] analysed Measure Up social marketing campaign and the evaluation report that had been produced on phase 1. Using their proposed evidence and ethics framework, they found that the campaign and evaluation report demonstrated the prioritisation of the following values with respect to evaluation:

- Measures relevant to waist circumference more than other measures of health and wellbeing
- Cognitive measures (such as awareness of the campaign, recall of the facts presented, intention to act) more than social or environmental factors
- Measures targeted for change more than measures of potential harms
- Aggregated data more than individual narratives
- Reductionism more than complexity
- Production of evidence more than quality of evidence (p. 469).

Although the evaluation report was not included in the data set for this study, the findings related to the impact evaluation indicators and other values and principles related to the epistemology, scientific approach and non-maleficence were similar.
With respect to the evaluation of interventions, Wickins-Drazilova et al. [545] proposed that in order to address the risk of undesirable side effects of obesity prevention interventions (as explored above in non-maleficence), it is ethically imperative to seek the opinions of the people subjected to inventions. This means engaging with the community in ways that go beyond merely obtaining individual consent. Wickins-Drazilova et al. also proposed the ethical principle of assessing obesity prevention interventions on the extent to which they empower people, especially those such as children, who are otherwise often disempowered. Whilst they acknowledge the complexity of both of these aspects of evaluation, they strongly argue that it is unethical for them not to be included in any obesity intervention evaluation, be it top down, bottom up or somewhere in between. Neither of these factors was present in the impact evaluation indicators, or any other level of performance indicators in the documents in this study.

**Summary**

This section has presented and discussed the extent to which the health promotion values and principles focused on impact evaluation indicators were evident in the documents. Through boundary critique I identified the presence and relative stability of an impact evaluation indicators discourse focused on rates of overweight and obesity, unhealthy eating, and physical inactivity. These indicators were framed as authoritative and reflected objectivist and reductive approaches. Other impact evaluation indicators included in some of the documents included the presumed cognitive antecedents required to change such unhealthy behaviours and the environmental conditions required to support such changes in unhealthy behaviour. Again the approach was objectivist and reductive. There was a complete absence of evaluation indicators at any level focused on any other causes, or any harms. There were no evaluation strategies that would facilitate the meaningful participation of people at whom these initiatives are targeted. Through reflective practice using the health promotion values and principles continuum as a critical questioning tool, I determined that the impact evaluation indicators were focused on rates of unhealthy
behaviours and disease. As such I determined that the weight-centred public health initiatives were strongly consistent with traditional health promotion.

This concludes the section focused on the technical health promotion values and principles related to what public health strategies are proposed and currently implemented in the weight-related public health initiatives. Technical health promotion values and principles in the values and principles continuum focused on the strategy approach (multiple or limited), governance and decision-making (collaborative or imposed), professional role (ally or expert) and impact evaluation indicators (determinants of health or rates of unhealthy behaviour and disease) in the weight-related public health initiatives.

8.4 Summary and conclusion

This chapter presented the results related to the values and principles in the health promotion values and principles continuum that focus on what public health strategies were proposed and currently implemented within the weight-related public health initiatives, and discussed the results in relation to the literature. The chapter addressed philosophical, ethical and technical health promotion values and principles. Philosophical health promotion values and principles focused on who to work with, the program basis, the nature of strategies, and the distribution of power in the weight-related public health initiatives. Ethical health promotion values and principles focused on participation in the change process, personal autonomy, beneficence, non-maleficence and basis for practice in the weight-related public health initiatives. Technical health promotion values and principles focused on the strategy approach, governance and decision-making, professional role and impact evaluation indicators in the weight-related public health initiatives.

Through the analysis I identified that in relation to who to work with, the ‘mixed approach’ discourse was dominant, and within that the whole population was the primary focus, and the quantitatively determined ‘target groups’ were a secondary focus. A ‘deficit-based approach’ discourse was strongly evident with respect to the
program basis. With respect to the nature of strategies, an ‘enabling but not empowering’ discourse existed alongside a ‘militarist target-intervention’ discourse. This discourse was also present in relation to the distribution of power, together with opposing ‘redistribution of power’ and ‘concentration of power’ discourses. With respect to participation in change process, there was a ‘tokenistic participation’ discourse. A strong ‘choice’ discourse was present concurrently with a ‘coercive, paternalist’ discourse related to personal autonomy. With respect to beneficence, I identified a ‘beneficiaries but not benefits’ discourse. Discourses related to maleficence included a weak ‘no harm’ discourse coupled with the presence of significant potential for harm.

Focusing on the basis for practice, there was a strongly objectivist ‘evidence of need’ discourse, strong ‘need for evidence’ discourse and an absence of discourse on theoretical foundations. The ‘multi-strategic, multi-level, multi-setting’ discourse related to the strategy approach, coupled with an ‘enable and disable health behaviours’ discourse. With respect to governance and decision-making, I identified a weak ‘citizen power’ discourse in one small section, tempered by the absence of discourse throughout the remainder of the documents. There was a ‘lexically absent but expertly present’ discourse related to professional role, and an ‘unhealthy behaviours and disease’ discourse related to impact evaluation indicators.

The extent to which these discourses were reflective of the values and principles of modern or traditional health promotion was determined (Table 9). The discourses were somewhat or strongly consistent with all but two of the values and principles of traditional health promotion, and the weight-related public health initiatives were therefore not consistent with health promotion best practice.
Table 9: Discourses and place on continuum for values and principles related to what weight-related public health strategies were proposed and implemented

<table>
<thead>
<tr>
<th>Focus of value</th>
<th>Discourses</th>
<th>SM</th>
<th>SWM</th>
<th>SWT</th>
<th>ST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who to work</td>
<td>Whole population</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Target groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program basis</td>
<td>Deficit-based approach</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature of strategies</td>
<td>Enabling but not empowering</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Militarist target-intervention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distribution of power</td>
<td>Redistribution of power</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Concentration of power</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Militarist target-intervention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philosophical domain</td>
<td>Participation in change process</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
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<tr>
<td>Personal autonomy</td>
<td>Choice</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Coercive, paternalist</td>
<td></td>
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</tr>
<tr>
<td>Beneficence</td>
<td>Beneficiaries but not benefits</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Non-maleficence</td>
<td>No harm</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Potential for harm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basis for practice</td>
<td>Evidence of need</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Need for evidence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethical domain</td>
<td>Strategy approach</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Multi-strategic, multi-level, multi-setting</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>Enable and disable health behaviours</td>
<td></td>
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<tr>
<td>Technical domain</td>
<td>Governance and decision-making</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Citizen power</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional role</td>
<td>Lexically present but expertly absent</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Impact evaluation indicators</td>
<td>Unhealthy behaviours and disease</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

SM=strongly reflective of modern health promotion; SWM=somewhat reflective of modern health promotion; SWT=somewhat reflective of traditional health promotion; ST=strongly reflective of traditional health promotion

Across all of the values and principles included in the health promotion values and principles continuum, I determined that the weight-related public health initiatives were strongly reflective of no modern health promotion values and principles, somewhat reflective of four modern health promotion values and principles, somewhat reflective of eight traditional health promotion values and principles, and strongly reflective of 10 traditional values and principles (Table 10).

Table 10: Summary of the extent to which the weight-related public health initiatives reflected the values and principles of health promotion

<table>
<thead>
<tr>
<th>Extent to which the initiatives reflected the values and principles of health promotion</th>
<th>Number of values and principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly reflective of modern health promotion values and principles</td>
<td>0</td>
</tr>
<tr>
<td>Somewhat reflective of modern health promotion values and principles</td>
<td>4</td>
</tr>
<tr>
<td>Somewhat reflective of traditional health promotion values and principles</td>
<td>8</td>
</tr>
<tr>
<td>Strongly reflective of traditional health promotion values and principles</td>
<td>10</td>
</tr>
</tbody>
</table>
The weight-related public health initiatives were somewhat or strongly reflective of two modern and seven traditional values and principles related to why public health initiatives are required, and two modern and 11 traditional values and principles related to what public health strategies are proposed and implemented. The weight-related public health initiatives were therefore significantly more reflective of traditional health promotion (18 values and principles) than modern health promotion (four values and principles) and were considered to be inconsistent with health promotion best practice.

The next chapter presents a discussion of the results with respect to the theoretical perspective of critical theory and the theoretical framework of Critical Systems Heuristics.
Chapter 9  Theoretical discussion, conclusion and recommendations

9.0 Introduction

The aim of this study was to contribute to reorienting or changing public health responses to body weight. The study had two research questions: What are the discourses within weight-related public health initiatives in Australia; and To what extent do weight-related public health initiatives reflect the values and principles of health promotion? In the three previous chapters I presented and discussed the results of the study designed to answer these questions. I used the theoretical framework of Critical Systems Heuristics to structure the study components of boundary critique and reflective practice. Critical discourse analysis was used to conduct the boundary critique of the weight-related public health initiatives as conveyed through the 10 documents selected for analysis. Through boundary critique I identified the various discourses evident in the weight-related public health initiatives through their explicit and implicit values, claims, assumptions and presuppositions, as well as the merit or value attributed to different positions or discourses. I then used the results of the boundary critique to inform reflective practice. Using the health promotion values and principles continuum for heuristic support, I identified that the weight-based public health initiatives predominantly reflected the values and principles of traditional health promotion.

In this chapter I move beyond the individual results to discuss the interpretation of these results with respect to the theoretical perspective of critical theory and CSH. An overall conclusion to the study is then presented, and finally, I make a number of recommendations arising from the study that relate to future research and practice.
9.1 Critical theory

Critical theory is a theoretical perspective focused on critiquing power relationships and social structures that perpetuate inequity [551]. Fairclough et al. argue that inequity and social problems result from the arbitrary categorisation of people and the ensuing oppressive attitudes and practices [550]. Weight-related public health initiatives arbitrarily categorise people based on their adiposity [2, 107], which adds a thick layer of public health legitimacy to the significant social oppression faced by those already deemed to be ‘overweight’. With the assistance of the expert sanctioning of public health initiatives, and the vociferous reproduction of obesity crisis stories in the media, such people are now deemed to be ‘too fat’ to be morally, socially, economically, politically and medically acceptable.

The purpose of critical theory is to identify and challenge the power relationships, social structures, oppressive attitudes and practices in order to create social change. Given the alignment of the goals of social change of critical theory and health promotion, I responded to Baum’s argument that all health promotion research should use critical theory as the theoretical perspective [34]. Critical theory provided me with the required perspective as a health promotion practitioner-researcher to examine the power relationships, social structures, oppressive attitudes and practices that shaped the construction of obesity as a public health crisis requiring urgent attention and the proposed solutions to this crisis. From the perspective of critical theory I was also able to identify and work with knowledge domains that Habermas argued contribute to research processes and outcomes: technical knowledge, practical knowledge and emancipatory knowledge [552-554].

In this study, the use of instrumental action to create technical knowledge was evident in the generation of objectivist, reductionist, and ultimately linear explanations for the causes of obesity and similarly linear proposals for public health solutions to address obesity. Technical knowledge however was acknowledged to be lacking with respect to the evidence of effectiveness of such public health solutions. In response to such a gap in the evidence-base, the initiatives called for more objectivist, reductionist monitoring
and evaluation of proposed public health strategies for obesity prevention and reduction.

Practical knowledge, or communicative action, denotes knowledge generated through human social interaction that enhances interpretation and understanding about social phenomena. Habermas conceptualised communicative action as operating at both the individual and societal levels [554]. Communicative action at both the personal and societal levels occurred through the weight-related public health initiatives. At the personal level, intensive communicative action occurred through the public consultation processes of the Obesity Inquiry and the National Preventative Health Strategy. Hundreds of written and verbal presentations from a wide variety of agencies, organisations, businesses and individuals were submitted as part of these consultation processes. However the power to represent the results of these communication processes rested entirely with the authors of the resulting reports – *Weighing it up* and the National Preventative Health Strategy Roadmap.

These reports formed the next layer of communicative action at the societal level. The reports provided one way communication about the issues canvassed during the consultation processes, and for the National Preventative Health Strategy, through a range of other commissioned reports as well. Without analysing all of the submissions to each inquiry, it is not possible to know the extent to which the submissions were reflected in the final reports. However it was noted that issues such as the need for community ownership of programs, and the potential for harm arising from weight-related public health initiatives, which were noted in the general text of the reports, did not translate into recommendations, actions or evaluation indicators. Their absence from the list of recommendations and the obesity implementation action plan resulted in their absence from the Government responses to these documents, and therefore from final public policy. These omissions exemplified the power and authority of the documents’ authors to silence or suppress views not consistent with the position they wished to present. The extent of readership of reports such as these is difficult to gauge, nonetheless these reports and the Government responses to them
communicate a range of claims, values and assumptions that are presented as axiomatic and uncontested.

The readership of reports and policy may be relatively small, but the reach of social marketing campaigns is far more extensive, and therefore the claims, values and assumptions that Measure Up and Swap It, Don’t Stop It conveyed through communicative action were also important to explore. I identified that these campaigns were not in fact focused on obesity prevention, as purported to be the case throughout the documents, but were actually focused on obesity reduction. They used a variety of social, discursive and textual practices to communicate a discourse that conveyed the following concepts: individual blame for excess body weight, particularly waist circumference; resulting high risk for diseases and death; individual moral, parental and familial responsibility to monitor waist circumference and make changes to eating and physical activity behaviours; such behaviour changes are easy to make; choosing a healthy lifestyle will result in weight loss; and weight loss with reduce risk for disease and therefore increase health and wellbeing.

Habermas suggests that society evolves and operationalises through rational communication which includes the capacity to question the validity of claims made within communicative action [554, 556]. However the communicative action taken by the reports, Government responses and social marketing campaigns presented claims as uncontested facts and was therefore directorial about the expectations of individuals to take more responsibility for themselves, adopt certain behaviours and reduce or prevent obesity. Habermas argues that the lack or distortion of rational communication erodes relationships at the individual and societal levels [554, 556]. I argue that the communicative actions represented by the reports and Government responses represents a distortion of rational communication and therefore erodes the wellbeing of individuals (for example through internalised stigma, shame, guilt, body dissatisfaction, weight preoccupation, disordered eating and avoidance of health care), relationships between individuals (for example through increased blame, coercion, stigma, bias, prejudice and discrimination) and society (for example through
stigmatisation of groups in the population on the basis of their body size and increased social and health inequity). Habermas proposes that power differentials work to distort rational communication, and that it is these distortions in communication that need to be the focal point for change [553-556]. Through critical analysis of the discourses used in the documents I identified that the documents relied on the power, authority and status of experts to present uncontested representations of body weight and public health responses to it. However in identifying the discourses present in the initiatives, and the extent to which the initiatives reflected the values and principles of health promotion, I hope to focus attention on and thereby disrupt the distortions in the practical knowledge of the weight-centred health paradigm in order to contribute to systemic reorientation and change.

The third knowledge domain in Habermas’ framework is emancipatory knowledge, which denotes knowledge of the self that is gained through self-reflection. Emancipatory knowledge includes enhanced consciousness and understanding about one’s perception of themselves, their role in, and expectations of social life. This form of knowledge, Habermas contends, results in the liberation of individuals from oppressive social structures. [552-556]. The final output of my study was the production of a framework of reflective questions to be used as heuristic support for the development of critical competence of policy makers, health promotion practitioners and people in the community to reflect on the weight-related public health initiatives they are working on, involved with or impacted by, and more broadly on the weight-centred health paradigm. My hope is that this framework will build emancipatory knowledge that contributes to personal growth, and together with the study results will contribute to systemic reorientation and change.

Critical theory seeks ‘not to disprove’ other theories, but to establish the limits of their validity, by showing that they unknowingly reflect a social reality which is itself distorted, an ‘alienated’ and impoverished version of what it could become’ [557] (Italics in the original) (p. 5). Critical theory proved to be an appropriate and relevant perspective from which I could analyse weight-related public health initiatives and the
extent to which they reflected social and political structures and ideologies, and directly or indirectly created technical, practical and emancipatory knowledge.

### 9.2 Critical systems heuristics

Critical Systems Heuristics (CSH) [66], a form of Critical Systems Theory, was the theoretical framework chosen for the study. Consistent with health promotion and critical theory, CSH is focused on creating change. Also consistent with critical theory, CSH aims to do so through the careful examination of structures and systems that create inequity. The three central components of a CSH systemic intervention study are boundary critique, reflective practice and critical competence [66].

#### 9.2.1 Boundary critique

Through emancipatory (outward looking) boundary critique, I planned to identify and critique the boundary judgements of the system of the weight-centred health paradigm, and I needed an appropriate methodology to do so. Critical discourse analysis (CDA) was selected as the methodology because to me, it was aligned with the critical functions of health promotion, critical theory and CSH. It was also selected because it also focused on the same set of concepts as the boundary critique of systems in CSH. CDA is focused on creating change through the analysis of explicit, implicit and hidden discourses within texts that serve to make and legitimise claims and assumptions by certifying them as authoritative and truthful. These discourses serve to establish, reinforce, maintain, destabilise or hide positions, presuppositions and ideologies inherent in the system. As with CSH, CDA was therefore a good theoretical fit, as well as a good practical fit for the purpose of conducting the boundary critique of the system of the weight-centred health paradigm, which was operationalised through the weight-related public health initiatives.

Through boundary critique I identified a range of discourses that contained a broad range of assumptions, claims and values inherent in the weight-related public health initiatives. Many of these were consistent with the claims of the weight-centred health
paradigm identified in the literature review. This is not surprising as the weight-related public health initiatives were all developed in response to the central idea that obesity is a public health problem in Australia (and in many other parts of the world). These assumptions, claims and values were conveyed through various discourses and identified through analysis of the textual, discursive and social practices used in the documents.

According to Foucault discourses that have a greater degree of domination and leave little room for choice and change are more dangerous [758]. Many of the discourses identified in the documents could, by this definition, be characterised as dangerous. Explicit discourses related to the construction of obesity as a costly, widespread public health problem that needed to be urgently addressed were hegemonic and stable. The claims made within these discourses were legitimised by the power, professional status and authority of the experts making the claims. There was no space provided for alternative discourses on the construction of the issue. For example, an alternative perspective on just a few aspects of weight-related public initiatives may have taken the following (imaginary) approach:

The paternalist and coercive public health strategies that were designed to increase the rate at which people ‘choose’ healthy behaviours in order to control body weight were based on taking population level data about statistical risk associated with one physiological factor in isolation from all other factors, and applying it to individuals in order to heighten their self-surveillance and their sense of fear and motivate them to adopt behaviours that have not been shown to result in sustainable reductions in body weight and instead have been shown to result in a range of harmful psychological and behavioural issues and subsequent weight gain.

Other alternative perspectives have been voiced in various fora, but to include these perspectives would have challenged the power and authority of the expert claim-makers and therefore destabilised these hegemonic discourses.
Less stable was the ideological discourse sitting behind the strategies. Neoliberal ideology was dominant in the individualist focus of the construction of the issue, and the solutions. However this discourse was partially destabilised by social liberal ideology which drew attention to market failure and the need for greater market regulation by a state. One of the major components of the neoliberal agenda is the high value placed on the role of a ‘free market’ in economic development and growth [611]. Neoliberal ideology generally opposes government attempts to ‘interfere’ in markets through legislation and regulation, or the imposition of tariffs, taxes or other fiscal measures designed to influence the markets in any way [611]. However in the initiatives in this study, the markets were deemed to be ‘imperfect’ and obesity was said to result from ‘market failure’. Government was said to have ‘failed to protect its citizens’ from the markets and both sectors were required to be more accountable. A range of strategies were proposed to interfere with the market to reduce harm and promote better health. A review of economic policy and the taxation system was proposed to provide subsidies on health promoting products and services and increase taxes on unhealthy products. Imposing regulations on industries deemed to be health limiting (particularly the food and beverage and advertising industries) were proposed if attempts at self-regulation failed. These strategies were not consistent with neoliberal ideology but were more closely aligned with social liberal ideology [611] in which the centrality of the individual is privileged but the role of government includes protection of its citizens through market interference in cases of market failure. This tension between neoliberalism and social liberalism was unresolved.

Social liberalism was also evident in the focus on inequity as a social problem. There was considerable discourse slippage in the documents between inequity and inequality. Inequity is a value judgement and associated with fairness and social justice, and inequality is a normative difference in a factor or variable between people or different groups in the community. Although inequity is the term used in health promotion declarations and statements, it was backgrounded in the documents in favour of the term inequality. This reflected the scientific objective discourse in which a normative term such as inequality was more at home than a social justice term such
as inequity. It is difficult to argue against addressing normative differences, but values about fairness may vary significantly, and social justice itself is a more political term. Again this was consistent with the dominant discourses present in the documents and the potentially deliberate effort to depoliticise their content.

The response to the problem of inequality was also depoliticised. The militarist target-intervention discourse was used to describe how ‘at risk’ communities (that is, those with normatively higher rates of obesity) would be targeted with interventions designed to drive uptake of healthier behaviours. In returning the focus to the behaviours of individuals, the discourse reverted back to neoliberal individualist ideology and the exercise of power by the state over individuals to achieve the subjugation and control of bodies.

Drawing on Foucault’s concept of biopower [759], obesity prevention and reduction strategies have been conceptualised as biopedagogies – disciplinary, regulatory and even educative strategies that enable and promote the governing (including self-governing) of bodies for the purpose of reducing or controlling body weight, improving health, productivity and life [479, 660, 678, 727]. Obesity biopedagogies evident in the documents in this study focused on the individual’s responsibility to follow a simple prescription for weight and therefore health: self-regulate, eat better and move more. Raphael [599] noted that individual responsibility obesity biopedagogies remove responsibility from the state to address health equity through, for example, alleviating socio-economic disparities in food security. Obesity biopedagogies are therefore inherently neoliberal. They place responsibility on individuals for controlling their weight and therefore their health, and subject them to moral opprobrium and blame if they fail to do so. Documents in this study highlighted the ‘costs’ of obesity and healthy weight included stories of stigma, bias and discrimination but through biopedagogies these were attributed to the consequences of obesity rather than social oppression. Obesity biopedagogies were routinely and strongly operationalised in the weight-related public health initiatives in this study and were made to seem ‘natural’ and ‘common sense’. The presentation of these ideas as ‘natural’ or ‘common sense’
enables the underpinning ideologies to infiltrate people and institutions as they appear to be ‘neutral’ rather than ideological or reflective of the interests and values of the powerful [68].

**9.2.2 Reflective practice**

Reflective practice involves engaging in purposefully reflecting on current practice, which requires heuristic support in the form of critical questioning tools. The research questions for this project focused on the discourses within the weight-related public health initiatives selected for the study, and the extent to which these weight-related public health initiatives reflect the values and principles of health promotion. Through the use of CDA, the boundary critique identified the discourses evident in the initiatives. The research project involved reflective practice using a specific tool to critique the weight-related knowledge system (as reflected in weight-related public health policies and programs) through the lens of the values and principles of health promotion. The health promotion values and principles continuum provided the critical questioning tool that allowed me to reflect on those discourses, and as a result to determine the extent to which the weight-related public health initiatives were consistent with modern or traditional health promotion. This process was therefore essential to answering the second research question.

CSH aims to improve complex systems by giving users of such systems a voice inside them, rather than having observations about systems constructed solely by experts, without the participation of users [561]. It aims to emancipate people from a situation of incompetence and dependency in which they are placed by experts from within the system [247]. I would not necessarily classify myself as incompetent or dependent (who would?), but the emancipatory nature of CSH appealed to my desire to grow and learn more through the process of undertaking this study, and to be able to use this to contribute to changing the system. It was also my intent to contribute to the emancipation of others using the system, as described above in relation to critical theory. Emancipation through emancipatory knowledge was therefore my goal for all users of the system, including myself, policy makers, health promotion practitioners
working on weight-related public health initiatives, and people in the community involved in or impacted by such initiatives.

The system in this case is the weight-centred health paradigm which has resulted in a plethora of weight-related public health initiatives, including in Australia. As a health promotion practitioner and a citizen of Australia I was expected to be a ‘user’ of the system at both professional and personal levels. As such I felt ‘qualified’ to use my voice in order to try and improve the system. CSH therefore added to the critical theory perspective by enabling me to frame the weight-centred health paradigm as a system worth researching, and legitimising my role as user-researcher of that system interested in bringing about change in the system. CSH was therefore a good theoretical fit. It was also a good practical fit as it provided the framework for me to undertake the research and to build phronesis, or practical wisdom, on how to respond to the weight-related public health initiatives within the context of health promotion values and principles [563].

My professional discipline is health promotion. I started my career working in health promotion at the individual level, but for the majority of my working life I have been involved in health promotion at the group, community and population levels in both public health tertiary education and public health practice. The research was therefore conducted within the discipline context of health promotion. Health promotion strategies would be expected to comprise the majority of the strategies in any major public health initiative. However, through the analysis I identified that the discipline of health promotion and the health promotion professionals that practice that discipline were backgrounded through the ‘preventative health’ discourse that dominated the Healthiest Country documents, which comprised half of the documents studied. Even the broader term public health was notably absent from these documents. There was no obvious rationale for the shift away from these universally recognised terms, and de Leeuw suggests that the preventative health discourse may simply be the ‘political craze of the day’ in a general political environment that is swinging more toward liberal and neo-corporatist perspectives [595]. This is consistent with Raphael’s
proposal that a similar shift from health promotion discourse to population health discourse in Canada provided a depoliticised discourse consistent with the retreat of the welfare state. The origin of the term preventative health is unclear – it just appeared in announcement of the National Preventative Health Taskforce that had been commissioned to develop the *National Preventative Health Strategy*. No explanation for the use of the term appeared in any of the documents, and it was presented as a given that this term was the most appropriate term to use. Health promotion is concerned with inequity and access to the determinants of health, thereby requiring strategies that are inherently political. The backgrounding of health promotion and even public health discourse in favour of the more nebulous preventative health discourse may therefore have been a deliberate attempt to depoliticise the (unavoidably political) process of making Australia the healthiest country by the year 2020. Whatever the reason, the expert members of the Taskforce took up the preventative health baton and ran with it all the way to the end and the handover of the *National Preventative Health Strategy Roadmap* to the Government, with barely a sideways glance at the health promotion and public health disciplines and practitioners that had been marginalised in the process.

Irrespective of the (probably political) motives behind the move, the invisibilisation of health promotion and public health in favour of the biomedically defensive preventative health agenda was personally and professionally confronting to me as a health promotion practitioner who has worked in public health units, departments and university schools for over 20 years. It also impacted on the way I described the initiatives, strategies and actions within the documents. None of the initiatives, strategies or activities was described as public health or health promotion within the documents, but I had to find a term I could use to refer to them. I settled on the use of the term public health because the initiatives were indeed almost exclusively public health initiatives, and included health promotion strategies along with other public health strategies such as population health surveillance and standards for clinical practice. So although the documents succeeded in invisibilising public health and
health promotion, my study served to keep it present in these initiatives, at least in this thesis and any subsequent publications.

In this project I have critically analysed the discourses evident in ten weight-related public health documents. This analysis has, by definition of the study parameters, taken place outside the context of how health promotion practitioners respond to, challenge or reinforce the discourses identified in the documents. However the exploration of how the discourses in these documents construct concepts of health and health promotion enables health promotion practitioners to critically reflect on their own practice and the extent to which it reflects the values and principles of health promotion. Such critical reflection is a vital for future practice.

9.2.3 Critical competence

The final component of CSH is critical competence. This involves developing the critical competence of professionals and everyday people to support their critical reflection on the system. This is where the seeds of change that are planted by boundary critique and hydrated by reflective practice are given a significant boost by a powerful practical tool for growth that can be picked up and applied by any user of the system. The aim of the study was to contribute to reorienting or changing public health responses to body weight. As an output of this study I therefore developed a set of reflective questions designed to assist in the development of critical competence about public health responses to body weight. In developing the heuristic to support critical competence I used the 4Rs Model for Critical Reflection [760] to pose a series of questions. These questions are designed to support reflective practice around each of the values and principles. The model includes four categories of questions:

Recall: What is your assessment of the current situation?
Relive: How do these recollections make you feel?
Reinterpret: What meaning do you make of the current situation and your feelings about it?
Respond: What can/will you do now?
This critical questioning tool can be used for heuristic support for the development of critical competence for policy makers, health promotion practitioners and people in the community to reflect on weight-based public health initiatives through the lens of the values and principles of health promotion (Table 11).

**Table 11: Reflective questions to develop critical competence related to the application of health promotion values and principles in practice**

<table>
<thead>
<tr>
<th>Reflection phase</th>
<th>Health promotion practitioners</th>
<th>People in the community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recall</td>
<td>To what extent do the weight-related public health initiatives you are working on reflect the values and principles of traditional and modern health promotion?</td>
<td>To what extent do the weight-related public health initiatives you are involved with or impacted by reflect the values and principles of traditional and modern health promotion?</td>
</tr>
<tr>
<td>Recall</td>
<td>What qualitative and quantitative processes have you undertaken to deepen your understanding of the reactions and responses to the values and principles underpinning these initiatives within your community?</td>
<td>What qualitative and quantitative processes have been undertaken by health promotion practitioners to deepen their understanding of the reactions and responses to the values and principles underpinning these initiatives within your community?</td>
</tr>
<tr>
<td>Recall</td>
<td>To what extent have the results of these processes shaped your professional role in the initiatives you are working on?</td>
<td>To what extent have the results of these processes shaped the initiatives you are involved with or impacted by?</td>
</tr>
<tr>
<td>Relive</td>
<td>How do these reflections make you feel?</td>
<td>How do these reflections make you feel?</td>
</tr>
<tr>
<td>Reinterpret</td>
<td>Why do you think you feel that way?</td>
<td>Why do you think you feel that way?</td>
</tr>
<tr>
<td>Reinterpret</td>
<td>Who stands to gain or lose the most from the perpetuation of the current values and principles in these initiatives?</td>
<td>Who stands to gain or lose the most from the perpetuation of the current values and principles in these initiatives?</td>
</tr>
<tr>
<td>Reinterpret</td>
<td>What do you stand to gain or lose by moving more towards the values and principles of modern health promotion in these initiatives?</td>
<td>What do the health promotion practitioners stand to gain or lose by moving more towards the values and principles of modern health promotion in these initiatives?</td>
</tr>
<tr>
<td>Reinterpret</td>
<td>How does reflecting on this make you feel?</td>
<td>How does reflecting on this make you feel?</td>
</tr>
<tr>
<td>Respond</td>
<td>What processes could you use to move more towards the values and principles of modern health promotion in these initiatives?</td>
<td>What processes could you use to help move the health promotion practitioners more towards the values and principles of modern health promotion in these initiatives?</td>
</tr>
<tr>
<td>Respond</td>
<td>What are the potential risks and benefits for undertaking such processes?</td>
<td>What are the potential risks and benefits for undertaking such processes?</td>
</tr>
<tr>
<td>Respond</td>
<td>How might you mitigate the potential risks and optimise the potential benefits?</td>
<td>How might you mitigate the potential risks and optimise the potential benefits?</td>
</tr>
</tbody>
</table>
The theoretical perspective of critical theory, the theoretical framework of Critical Systems Heuristics and the methodology of critical discourse analysis provided a strong and consistent theoretical focus on the critical examination of the power relationships, social structures, ideologies, assumptions, claims, values and discourses of the weight-centred health paradigm, as represented by the selected weight-related public health initiatives. The Critical Systems Heuristics components of boundary critique, reflective practice and critical competence provided a strong practical framework for conducting the study and producing the final study output. The reflective questions for developing critical competence related to the values and principles of weight-related public health initiatives is not just a theoretical list of questions at the end of a thesis. It is intended to be a practical tool to support policy makers, health promotion practitioners and people in the community to be agents for challenging and changing the system. It is meant to be at once highly emancipatory and strongly practical. Just as the CSH framework was a good practical tool for use in this study, so too is the list of reflective questions meant to be a practical tool for assisting change.

9.3 Strengths and limitations

The study had a number of strengths and limitations.

9.3.1.1 Strengths

1. The study responds to the call to make explicit the values and principles underpinning existing health promotion programs.
2. The study responds to the identified need for health promotion practitioners to apply values and principles in their practice.
3. The study used a practical theoretical framework and well defined methodology.
4. The study tested the utility of the health promotion values and principles continuum as a critical questioning tool for reflective practice.
5. The study produced a set of reflective questions for critical competence for use by policy makers, health promotion practitioners and people in the community.
6. The study covered the entire period in which weight-related public health initiatives have been initiated by the Australian Government, from 2003 to 2013.

7. The study documents are all publicly available on the web and can be examined by other researchers or practitioners using similar or different methodologies.

9.3.1.2 Limitations

1. The study results were constructed by me and are limited to my interpretation.

2. The study did not include other Government documents such as program evaluation reports or submissions to the consultative processes. The inclusion of such documents may have provided additional insights.

3. The study did not involve health promotion and public health practitioners, policy makers, or members of the community. As such it is not known what their views and experiences are of these weight-related public health initiatives.

4. The study did not include weight-related public health initiatives developed by non-Government organisations or the private sector. As such it is not known to what extent such initiatives reflect the values and principles of health promotion.

5. The study did not test the utility of the health promotion values and principles continuum as a critical questioning tool for use as heuristic support for dialogue within and between health promotion practitioners and people in the community.

6. The study was designed to examine public health initiatives related to body weight. As such the conclusions cannot be applied to health promotion practice more broadly.
9.4 Study conclusion

In this study I identified and critiqued the values, claims and assumptions of 10 Australian Government weight-related public health initiatives. I used the health promotion values and principles continuum as a critical questioning tool for reflection on weight-related public health initiatives. Using critical discourse analysis, I identified a broad range of discourses that were evidence of the claims, values, assumptions, power relationships and ideologies explicit, implicit, suppressed or hidden within the initiatives. As a result of these varying discourses, I determined that the weight-related public health initiatives were somewhat to strongly reflective of traditional health promotion values and principles. Some discourses were somewhat reflective of modern health promotion values and principles, but these were largely subordinated by the hegemonic discourses consistent with traditional health promotion. The weight-related public health initiatives were consistent with the broader weight-centred health paradigm. There was no evidence of any other weight-related health paradigms operating within the initiatives.

Health promotion practitioners working on obesity prevention and reduction initiatives and people in the community involved in or impacted by such initiatives need to critically reflect on these initiatives and make explicit the health promotion values and principles that underpin them. As such I produced a critical questioning tool to provide heuristic support for the development of critical competence of policy makers, health promotion practitioners and people in the community to reflect on weight-based public health initiatives. The ‘reflective questions for critical competence’ is a tool designed to support such reflections. Critically examining the extent to which weight-related public health initiatives reflect the values and principles of health promotion is an essential foundation for mobilising discussion, driving change towards the values and principles of modern or best practice health promotion, and thereby contributing to reorienting and changing public health responses to body weight.

Of course a research project such as this cannot create change alone. The respected and authoritative voices privileged in weight-related public health initiatives occupy
positions of great power. There are significant professional and commercial interests invested in maintaining and indeed strengthening the weight-centred health paradigm. Foucault asserts that power and knowledge are inseparable and mutually influential and this study does not directly unsettle or disturb powerful interests. It does however seek to help develop the critical competence of policy makers, practitioners and people in the community to reflect on their own complicity in perpetuating the dominant paradigm, to challenge the paradigm, and to explore alternative paradigms more consistent with health promotion best practice. It will take more than one study or action to dislodge such a dominant paradigm. However, as with all small actions undertaken by individuals, it all adds up. This study will contribute to the greater body of systemic intervention being implemented by social justice, fat acceptance and Health at Every Size advocates and activists, fat studies and critical weight studies scholars and others who are engaged in the enterprising task of shifting society from the weight-centred to a weight-neutral paradigm.

9.5 Recommendations

The aim of this study was to contribute to reorienting or changing public health responses to body weight. As such this thesis would not be complete without recommendations for practice, policy and research that arise from the results of the study and will further contribute to such change.

Recommendations for health promotion practice

1. Practitioners need to carefully consider their use of language and be mindful of the potential of discourse to act as a mechanism for ideology, authority and the distribution of power.

2. Practitioners could apply the reflective practice for critical competence questions to weight-related public health initiatives they are working on.

3. Practitioners could encourage people in the community to apply the reflective practice for critical competence questions to weight-related public health initiatives they are involved with or impacted by.
4. Practitioners and community members could discuss the results of the reflective practice for critical competence questions and collaboratively plan and implement actions identified through the process to shift the weight-related initiatives towards the values and principles of modern health promotion.

5. Practitioners could display openness and transparency about the values and principles that underpin health promotion research, policies and programs.

6. Practitioners could advocate for greater critical reflection on the values and principles that underpin existing health promotion research, policies and programs that address all topics or issues.

7. Practitioners could initiate processes to enhance the application of modern health promotion values and principles to initiatives they are working on.

8. Practitioners could advocate for the explicit incorporation of the values and principles of modern health promotion in the development of new health promotion research, policies and programs that address all topics or issues.

**Recommendations for health promotion policy**

1. Existing health promotion policy related to body weight could be evaluated for the extent to which it reflects the values and principles of modern health promotion.

2. Existing health promotion policy related to any issue or topic could be evaluated for the extent to which it reflects the values and principles of modern health promotion.

3. Where existing policies do not reflect the values and principles of modern health promotion, strategies could be initiated to reorient such policies towards health promotion best practice.

4. Future health promotion policy related to body weight could be based on the values and principles of modern health promotion.

**Recommendations for health promotion research**
1. The utility of the health promotion values and principles continuum as a critical questioning tool for use as heuristic support for dialogue within and between health promotion practitioners and people in the community could be evaluated.

2. The effectiveness of the reflective practice for critical competence questions as a heuristic support for developing critical competence could be evaluated.

3. The extent to which Health at Every Size initiatives are reflective of the values and principles of health promotion could be evaluated.

4. Future studies could include other Government weight-related documents such as program evaluation reports or submissions to the consultative processes.

5. Further research is required on the views and experiences of health promotion and public health practitioners, policy makers, or members of the community regarding weight-related public health initiatives.

6. Further research is required to determine the extent to which weight-related public health initiatives developed by non-Government organisations or the private sector reflect the values and principles of health promotion.

7. Critical discourse analysis could be considered as a potential methodology for examining the hidden and explicit discourses in existing health promotion initiatives.

8. Critical Systems Heuristics could be considered as a potential theoretical framework to investigate and bring about social change related to other health promotion issues.

### 9.6 Conclusion

The purpose of this chapter was to present and discuss the overall research results. The results for each component of CSH were presented, followed by the theoretical discussion covering health promotion, critical theory, CSH broadly and each component of CSH. The theoretical threads of the study were then summarised. The strengths and limitations of the study were identified, followed by the overall conclusion of the study and the recommendations for practice and research.
References


5. Wann, M., *Fat!So? Because you don’t have to apologise for your size!*, 1998, Berkeley: Ten Speed Press.


94. OECD. *Obesity and the Economics of Prevention: Fit Not Fat - United States Key Facts*. 2012 [cited 2012 6 April]; Available from: [http://www.oecd.org/document/57/0,3746,en_2649_33929_46038969_1_1_1_1,00.html](http://www.oecd.org/document/57/0,3746,en_2649_33929_46038969_1_1_1_1,00.html).


119. Mehta, T., et al., *Does obesity associate with mortality among Hispanic persons?: Results from the National Health Interview Survey*. Obesity, 2012: p. n/a-n/a.


128. Gaesser, G., Have the Health Hazards of Obesity Been Exaggerated?, in Health at Every Size Summit 2010: San Francisco, CA, USA.


355. Williams, D., *Learning to Manage: A Substantive Grounded Theory of Large Bodied Women’s Interactions with Medical Professionals* 2012, University of Tasmania, AUS.


412. Pennington Biomedical Research Centre, *Genetic influences on obesity development*, 2008, Pennington Biomedical Research Centre: Baton Rouge, LA, USA.


431. White House Task Force on Childhood Obesity, *Solving the Problem of Childhood Obesity Within a Generation* 2010: Washington, DC, USA.


488. Bacon, L., the HAES files: hypocrisy of obesity war exposed; the HAES peace movement makes inroads in Health at Every Size2011, Association for Size Diversity and Health.


534. O'Reilly, C., *Weighing in on the Health and Ethical Implications of British Columbia’s Weight Centered Health Paradigm*, in Public Policy Program, Faculty of Arts and Social Sciences2011, Simon Fraser University.


566. Gregg, J.A., *Development of a health promotion model and the impact evaluation of the model on practitioners’ health promotion practice*, in *School of Health and Sport Sciences* 2012, University of the Sunshine Coast: Sunshine Coast.


663. Burgard, D., Death Threats, Death Anxiety, and Dying While Fat, in Health at Every Size 2013.


