The Obesity Paradigm and the Role of Health Services in Obesity Prevention: a systems view

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A thesis submitted in fulfilment of the requirements of the degree of
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STATEMENT OF AUTHENTICITY

This thesis is submitted to the University of Sydney in fulfilment of the requirements for the degree of Doctor of Philosophy.

The work presented in this thesis is, to the best of my knowledge and belief, original except as acknowledged in the text. I hereby declare that I have not submitted this material, either in full or in part, for a degree at this or any other institution.

I further declare that I have been the lead author on the conceptual work underpinning this thesis and its implementation; and have led the analysis and writing of the publication included herein. All the assistance received in preparing this thesis has been acknowledged.

Claire Noël Pearce

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As auxiliary supervisor for the candidature upon which this thesis is based, I can confirm that the authorship attribution statements above are correct.
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<tbody>
<tr>
<td>ACT</td>
<td>Australian Capital Territory</td>
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<tr>
<td>BMI</td>
<td>Body mass index</td>
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<td>CAS</td>
<td>Complex Adaptive Systems</td>
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<tr>
<td>5As</td>
<td>Framework utilised as a preventative healthcare tool to identify risk factors for chronic disease.</td>
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<td>GP</td>
<td>General Practitioner</td>
</tr>
<tr>
<td>MICRO LEVEL</td>
<td>Patient interaction level</td>
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<td>MESO LEVEL</td>
<td>The health care organisation</td>
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<tr>
<td>MACRO LEVEL</td>
<td>Policy level</td>
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<tr>
<td>NHMRC</td>
<td>National Health and Medical Research Council</td>
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<tr>
<td>RACGP</td>
<td>Royal Australian College of General Practitioners</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<tr>
<td>TERM</td>
<td>DEFINITION</td>
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<tr>
<td>ACT: Australian Capital</td>
<td>Geographical area in the south-east of Australia encompassing the city of Canberra and a small rural area.</td>
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<tr>
<td>Territory</td>
<td></td>
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<td>Case Study</td>
<td>Form of empirical inquiry that investigates a phenomenon within its real-life context</td>
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<td>Grounded theory</td>
<td>Set of inductive and iterative techniques designed to identify categories and concepts, ‘grounded’ within the data as opposed to bringing a theory into a setting to test.</td>
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<tr>
<td>Health system</td>
<td>Organisation of staff, institutions, and resources that deliver health care services to meet the health needs of a particular populations</td>
</tr>
<tr>
<td>Health system levels</td>
<td>Micro= patient interaction level; Meso = health care organisation and community level; Macro = policy level</td>
</tr>
<tr>
<td>Nanny state</td>
<td>Phrase which implies the government is giving too much advice, or making laws about, how people should live their lives</td>
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<tr>
<td>Obesity</td>
<td>Excess accumulation of body fat to the extent that it impacts on a person’s health</td>
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<td>Paradigm</td>
<td>The way in which an issue is framed, a way of considering or understanding something</td>
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<tr>
<td>Prevention</td>
<td>Preventive or preventative healthcare includes the prevention of illness, the early detection of a specific disease, and the promotion and maintenance of health</td>
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<tr>
<td>System</td>
<td>A system is ‘a set of things... interconnected in such a way that they produce their own pattern of behaviours over time’</td>
</tr>
<tr>
<td>Systems thinking</td>
<td>Broad paradigm concerned with inter-relationships, perspectives and boundaries within a system. It is way of examining something that helps us better understand how it works in order influence change.</td>
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ACKNOWLEDGEMENTS

Undertaking a PhD is a journey and as I discovered, not always a smooth one. I was able to set out on this journey due to the financial and practical support of the Australian Prevention Partnership Centre. By recognising my industry-based experience, they provided me with the opportunity to think beyond the narrow confines of my day-to-day work and to marvel at the insights of some of Australia’s greatest public health thinkers. Thank you.

A special thanks goes to Sonia Wutzke (1970–2017). I am sorry that you weren’t here to see me finish this journey, but your wisdom travelled with me, as did your direct advice. You were right, I did just need to sit down and write!

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I think I managed to link up with two of the world’s most patient supervisors, Andrew Wilson and Lucie Rychetnik. Your knowledge, and your ability to so clearly articulate messy concepts certainly enhanced my journey and I very much appreciated your support and regular reassurances that I could do it. Thank you.

Karin Hosking provided professional copyediting assistance.
And last, but in no way least, I want to acknowledge my wonderful family. My husband Billy – you have always believed in me and been my biggest fan even when I argued against you! I would not have started this journey without your encouragement and I certainly could not have finished it without you by my side.

My three amazing boys:

Angus – I’m glad I got to finish this before you hit your teens, I hope I have made you as proud of me as I am of you.

Henry – you always seemed to intuitively know when I was on track and when I was struggling. Your cuddles and affection were welcome whatever kind of day it had been.

George – thank you for always checking in to see how my day was and to ask how many words I had written; your boundless kindness makes my heart sing.

Feel free to read this thesis in its entirety, to critique and to question. I have learnt a lot through this process, but I don’t claim to have all the answers, other than it doesn’t matter what size or shape we are on the outside, it doesn’t determine who we are on the inside. What does determine who we are is how we act towards others and if in doubt, just be kind.
PUBLICATIONS AND PRESENTATIONS ARISING FROM THIS THESIS

One peer reviewed publication has arisen from this thesis to date.


I designed the study, analysed the data and wrote the drafts of the manuscript.

There have been a number of conference presentations which have been based on the findings of this thesis. I wrote and presented each of the presentations listed below:

- Australian Public Health Association Conference 17–19th September 2019
  The obesity paradigm and the role of health services in prevention. https://www.austph2019.com/

- National Allied Health Conference, 5–8th August 2019

- Canberra Hospital Annual Research Meeting, 30th July – 2nd August 2019
  The contested nature of obesity and the role of health services in prevention

- Emerging Health Policy Research Conference. Menzies Centre for Health Policy, 27th June 2019
  The impact of the obesity paradigm on the role of health services in the prevention of obesity
  https://ses.library.usyd.edu.au/handle/2123/20678

- ACT Allied Health Symposium, ACT Health, 9th April 2019
  Should health professionals be telling us we’re fat?

- Chronic Disease Management Symposium, Canberra Health Services, 11th December 2018
  Obesity: everybody’s problem, nobody’s responsibility.
- Public Health Prevention Conference, 2nd–4th May 2018
*How health services view their role in the prevention of obesity.*
[https://www.prevention2018.com/presentations](https://www.prevention2018.com/presentations) (Session 5C)

- Emerging Health Policy Research Conference. Menzies Centre for Health Policy, 27th July 2017
*How do health services view their role in the prevention of obesity?*
[https://ses.library.usyd.edu.au/handle/2123/17099](https://ses.library.usyd.edu.au/handle/2123/17099)

- World Congress of Public Health, 3rd–7th April 2017
*Why aren’t health professionals telling us we’re fat?*

- Emerging Health Policy Research Conference. Menzies Centre for Health Policy, 13th July 2016
*Why aren’t health professionals telling us we’re fat? The role of health services in overweight and obesity prevention.* [https://ses.library.usyd.edu.au/handle/2123/15697](https://ses.library.usyd.edu.au/handle/2123/15697)
ABSTRACT

Aim
The aim of this research is to explore how obesity is conceptualised as a health problem in healthcare and the impact this has on the way that various parts of a health service respond or fail to respond to patients classified as obese. In particular, the thesis examined the potential for secondary health services to incorporate obesity prevention into service delivery and how perspectives, relationships and system boundaries enable or hinder the ability of secondary health services to incorporate adult obesity prevention into practice. This was intended to provide insights into how and why there is a well-documented lack of response to obesity in health care settings, rather than test a theory or evaluate the effectiveness of a particular approach or technique.

Background
The increasing prevalence of obesity has a strong association with the growing rates of chronic disease in Australia. Health services have a clear role in the treatment of obesity and diseases linked to obesity. However, the role of prevention, particularly in hospital and community-based health services, is less well established. Further empirical evidence is required to understand from a systems perspective how health services can play a more effective role in obesity prevention and what the barriers to implementation may be.

Methods
Qualitative research methodology was used to explore and understand obesity prevention within the case-study context of ACT Health which, at the time the data was gathered, provided the clinical and governance functions for publicly funded secondary and tertiary
inpatient, day hospital, clinic-based and community-based health services for the Australian Capital Territory (ACT). The use of grounded theory as a tool of analysis supported an approach which focused on the perspectives of those working within the health system and how these are influenced by the case-study setting, rather than applying pre-existing theory. As a mental framework, a systems approach guided the researcher to engage diverse perspectives and examine relationships and interconnections in relation to the topic of interest. The research process commenced with a review of the literature.

Results

The literature review established that health services should aim to screen for obesity and refer to appropriate intervention services, but this is not routinely occurring. The ACT Health case study identified that the normalisation of obesity is impacting on the way that health services frame both obesity and prevention. The reasons for this include the mismatch between a growing burden of overweight and obesity outpacing health services capacity, resourcing, and service criteria which do not support clinician-led prevention activities. Also important were health professionals’ views about the causes of obesity, and their doubts about the benefits of the health sector intervening once someone is already obese.

There were substantially different perspectives regarding obesity and obesity prevention between those working at macro, meso and micro levels of the health system but in the absence of a feedback loop across the system, there continues to be a population focus which does not help address the issues faced at the level of individual clinical care. These differences stemmed from assumptions regarding who is responsible for obesity prevention and opinions regarding the potential effectiveness of prevention at a population versus an
individual level. At an executive level, obesity is framed as a population issue, with those setting policy focusing on population prevention; staff with operational management responsibilities see prevention as not sitting within the remit of clinical services and clinicians focus on the needs of the individual with an emphasis on building rapport and individualising care. This results in a disconnect between health service policy, management expectations, and the realities of clinical care.

For the clinical services of the ACT, the barriers to providing obesity prevention are the restrictions caused by service criteria and a lack of clarity around the role of health services in obesity prevention. The status of obesity as a disease compounds these practical issues as health services have a propensity to revert to a disease-based treatment approach, reinforcing the assumption that responsibility for prevention sits with the individual. When care is delivered within a medical disease model, it prevents health services, and those working within those services, from playing an effective role in addressing the often-complex psychosocial, economic and environmental drivers of obesity. Furthermore, the discourse around obesity within and across the different levels of the system has influenced and shaped the way that this health service is responding to the impact of obesity. This discourse at times saw participants take a dichotomous position, particularly in terms of whether or not obesity is a disease and whether or not it is a matter of individual responsibility. This was often accompanied by a sense of futility or helplessness when discussing the effectiveness of obesity prevention. There was a hesitancy expressed in terms of how to broach the topic of obesity at an individual and a system level. There was an awareness of the shame and stigma that is inextricably linked to obesity, but no view on what role health services could do to combat stigma.
Conclusion

The way we frame obesity (within health services) as a matter of choice, and deliver services within a medical disease model, prevents health services from playing an effective role in the prevention of obesity. The medical disease model overly simplifies the complex issue of obesity prevention, and reinforces a paradigm which frames obesity as a matter of individual responsibility. This prevailing narrative leads to unintended consequences as the continued focus on the need for individual change contributes to blame and stigma which compounds the negative elements associated with obesity for the individual and ultimately does not result in any positive change at an individual or a societal level.

At a healthcare delivery level, health systems need to provide explicit obesity prevention policies and service criteria to support clinicians working with individual patients and establish clear referral systems with appropriate resourcing. A systems approach to obesity prevention would help develop feedback loops across the system and identify a broader range of ways to incorporate prevention into practice for health professionals and the health system as a whole. It would also provide an opportunity to discuss and challenge the assumptions underlying the obesity discourse and support the system to move to an obesity paradigm where obesity is framed not as being the fault of the individual, but is approached as a shared problem, one which is everybody’s responsibility.
Preface: THESIS OVERVIEW

Origin of the Thesis

This thesis started out heading in one direction but after several sharp turns, ended up following a completely different path. I am an occupational therapist and I have worked in hospital and community-based health services for a number of years. Most recently, I have been undertaking project work evaluating and developing clinical chronic disease services within the ACT health system. Through this project work, as well as my clinical experience, I came to understand that the evidence overwhelmingly showed that the biggest challenge facing health services is the growing rates of preventable chronic disease, and that the key to reducing demand on health services is chronic disease prevention. Despite this, health services continue to behave as they always have, providing a reactive treatment-based service, firmly set within the medical model.

So, when the opportunity came along to undertake a PhD supported by the Australian Prevention Partnership Centre (TAPPC), I saw it as a chance to try and understand why it was that health services were not playing a more significant role in trying to reduce the demand that threatened to overwhelm them. I did start out with some firmly held views, including that health services are more than doctors and hospitals, and that workforce redesign is an essential component in the evolution of services. I had experience of supporting services through a change process on a small scale but wanted to learn more about how change could be achieved on a larger scale.

My starting place was looking at what the literature said about how health services could shift the focus of interventions from treating illness to preventing it. I began by reading up
about chronic disease prevention generally. A priority issue that kept coming up was obesity which, though a risk factor for many chronic conditions, wasn’t actually classified as a disease, at least within Australia. I also looked at my own workplace and observed that the ACT response to obesity consisted of a cross sector population focus plus a health services-based obesity management service with a significant gap in terms of tackling the space in between.

The event that helped to focus my research was a TAPPC forum at which one of the speakers talked about the evidence for health service delivered chronic disease prevention. The issue highlighted by the speaker was that evidence is most often derived from controlled settings. When systems attempt to roll out programmes to real-world settings, the efficacy of interventions decreases and uptake is poor. What is needed is a better understanding of what it is about these real-world settings that might be harnessed to effect change.

So, with all this in mind, my PhD journey began with the aim of exploring why it is so challenging for health services to implement obesity prevention, with the hope of contributing to knowledge that could lead to a positive change.

Rationale for the Thesis

Thesis Statement

There is a role for health services in the prevention of obesity, but it is not happening. This doesn’t seem to be significantly improved by the provision of training, education or extra resources. Most of the research to date has taken a linear cause and effect approach within controlled settings rather than a systems-based approach. This thesis draws on systems
thinking to look at opportunities for health services to adopt a more effective role in prevention and to develop a better understanding of the barriers and enablers.

**Contribution to knowledge**

My research was influenced by two previous studies aimed at enhancing our understanding of the dynamics impacting on the uptake of obesity prevention in a health services setting. The first was a study based in the United Kingdom which interviewed individuals with obesity, health professionals and policy makers working in the area of obesity prevention and weight management in order to empirically evaluate their knowledge of the causes of obesity, their beliefs about factors that enabled or inhibited weight change, and opinions regarding effective interventions (3). The second was undertaken in Canada and set out to examine ‘the experiences of individuals living with obesity, the perceptions of health care providers, and the role of social, institutional, and political structures in the management of obesity’ (4). Both of these studies identified that perceptions about obesity have an impact on obesity prevention and that even when there is an understanding of the complex nature of obesity and its causes, health services continue to revert to the application of the medical model whilst those experiencing obesity revert to the socially framed message of self-blame.

There are commonalities between the Australian, British and Canadian health systems but it cannot be assumed that reasons for the health services’ response to obesity and prevention will be the same across all settings. My research applied a systems approach to examine obesity prevention within the context of an Australian health system case study, from the perspectives of policy makers and senior managers, clinical managers and clinicians. It
included exploring how the opportunities and barriers to prevention are impacted by the social meaning of obesity, existing relationships and roles of those working within the system.

**Research Approach**

To build on the work previously undertaken in other countries I undertook a qualitative study to examine obesity prevention from the perspective of three groups based within one Australian health service: policy makers and senior managers; clinical managers and clinicians. The research was based in my place of work enabling me, as the primary researcher, to utilise my knowledge of the system to implement a purposeful sampling of participants and to situate the findings within the setting context. Although I sought to build on prior research, I used grounded theory to analyse the data rather than applying a preconceived theory. This iterative approach opened up the opportunity to address knowledge rather than testing previous results.

**Outline of Each Chapter**

**CHAPTER 1**

This chapter provides an overview of the research, beginning with the research aims and questions. The focus of the chapter is to set the scene for the research by describing the case-study setting of the Australian Capital Territory and the local health services.

**CHAPTER 2**

This chapter is an introduction to the central elements to be examined within the thesis, beginning with chronic disease before focusing more specifically on obesity. This is followed
by a discussion of the concept of prevention and the overarching context of the Australian health system.

CHAPTER 3

This chapter contains two parts. Firstly an overview of the topic, the role of health services in the prevention of obesity, and secondly a published scoping review of the literature which asks the question ‘What does the peer reviewed literature reveal about the role of adult health services (excluding general practice) in the provision of obesity prevention and what are the key elements of implementation?’

CHAPTER 4

This chapter is titled ‘conceptual paradigm’. As I am using grounded theory for data analysis, I did not want to bring a pre-existing theory into my research. I did, however, use systems thinking as a means to structure the research approach and findings. This chapter outlines the theory of systems thinking and how it forms the conceptual paradigm for this research, as well as summarising the systems thinking literature specific to the topics of interest, that is, obesity and health services.

CHAPTER 5

Qualitative research methodology was used to study and understand obesity prevention within the case-study context of ACT health services. This chapter outlines the research methodology of applying grounded theory to a case study to better understand a complex system. This involved conducting face-to-face interviews with staff within one of three groupings of ACT health services. The research method is described in order that an
understanding can be gained of how the research data was obtained and the initial stages of analysis were progressed.

CHAPTER 6

This is the first of three results chapters. Chapter 6 presents an overview of the results, including a summary of the main categories identified for each of the three staff groups interviewed, followed by a comparison of the key differences between the groups. The chapter concludes by highlighting the two processes grounded in the data, the normalising of obesity and the discussion of obesity, which will be detailed in chapters 7 and 8.

CHAPTER 7

The second of the three results chapters, this chapter provides further analysis of the interview data with a specific focus on the social process of normalising, and how this links to the barriers to obesity prevention facing the ACT health system. It was clear from the interviews that across the health system obesity is seen as a problem, but the adaptations that have occurred do not contribute to a system solution to prevention with the consequence that no one within the health service has responsibility for prevention.

CHAPTER 8

The third and final results chapter provides further analysis of the interview data, concentrating on the process of discoursing, and how this links to the obesity prevention barriers facing the ACT health system. The obesity discourse was observed to be influenced by several factors including personal experience, people’s observations of the impact of obesity on health services, professional philosophy, and an internal narrative around how an individual can or should experience or respond to being obese.
CHAPTER 9

This chapter discusses the concepts grounded in the data of the ACT case study in order to develop substantive theory. The focus of this chapter is on considering the implications of these theoretical concepts and how they relate to the existing body of knowledge. It is proposed that applying a systems approach to obesity switches the focus from an individual paradigm to one which considers the multitude of influences on someone’s behaviour and the range of ways to address change. At a healthcare delivery level, this could help support clinicians in working with individual patients as well as changing the way that policy and service criteria are developed.

CHAPTER 10

This chapter concludes the ACT case study by summarising the findings in relation to the study aims, discussing the implications of the findings, outlining the strengths and limitations, and recommending next steps in terms of future research.
Chapter 1: Aims, Research Questions and Study Context

Chapter Overview

This chapter will provide an overview of the research, beginning with the research aims and questions. The focus of the chapter is to set the scene by describing the case-study setting, including the policy environment. This will provide a context to take into the next chapter which will introduce the topics of interest – obesity, prevention and the Australian health system.

1.1 Introduction

The increasing prevalence of obesity has a strong association with the growing rates of chronic disease in Australia (5). Health services have a clear role in the treatment of obesity (6), but the role of prevention, particularly in hospital and community-based health services, is less well established (7). Research to date has taken a linear approach to the implementation of obesity prevention-focused clinical guidelines but this approach is not best suited to a complex problem within a complex system (8). A key barrier that has been identified is the perceptions of health service staff regarding obesity and prevention (9). Further empirical evidence is required to understand these perceptions in order for health services to play a more effective role in obesity prevention. This research took a systems approach (see Box 1) to examine the perceptions of health staff towards obesity and obesity prevention in order to develop substantive theory to contribute to knowledge regarding the role of health services in the prevention of obesity.


**Box 1: Definition of Systems Thinking**

A system is ‘a set of things... interconnected in such a way that they produce their own pattern of behaviours over time’ (1).

Systems thinking is a broad paradigm concerned with inter-relationships, perspectives and boundaries within a system (2). It is way of examining something that helps us better understand how it works in order influence change.

### 1.2 Research Aims

1. To examine the potential for a secondary health service to incorporate obesity prevention into its service delivery.

2. To examine how local perspectives, relationships and system boundaries may enable or hinder the ability of secondary health services to incorporate adult obesity prevention into practice.

### 1.3 Research Questions

1. What is the evidence for effective secondary health service-based obesity prevention interventions targeting an adult population?

2. How is obesity and the prevention of obesity currently perceived by people working in roles at different levels of a secondary health service including:
   - Macro: policy development or executive oversight of operational services
   - Meso: management of clinical services
   - Micro: clinical service delivery

3. How do these perceptions impact on the implementation of health service based obesity prevention?
Out of Scope

- Evaluating specific obesity prevention intervention models/techniques
- Primary healthcare services

1.4 Study Context

1.4.1 The Australian Capital Territory

The Australian Capital Territory (ACT) is a geographical area in the south-east of Australia encompassing the city of Canberra and a small rural area. All of its borders are shared with the state of New South Wales. The total land area of the territory is approximately 2400 square kilometres, with 45% of that area being made up of the Namadgi National Park. See Figure 1.

![Figure 1 Location of the Australian Capital Territory](image)

The ACT has a population of approximately 420,000 people, with an even split between females and males. The population of Canberra is predicted to grow by another 70,000 over the next 10 years and whilst the current median age is 34, the population is ageing. In contrast to the Australian states, as a territory, the ACT has only one tier of government responsible for local municipal and provincial matters (10). Being the seat of federal
government, the main industry in Canberra is public administration. The average level of qualification of Canberra residents is higher than the national average, with 37.1% of people holding a bachelor’s degree or postgraduate education – the national average is 20%. The median weekly income is also higher than the national average.

1.4.2 The ACT Health System

The ACT has primary, secondary and tertiary health care services delivered through a range of public and private facilities. As well as providing services for people residing within the ACT, health services are also accessed by a further 200,000 people living in adjacent areas within southern New South Wales (NSW).

The majority of primary health care is provided by Medicare-subsidised private general practices providing medical, nursing and allied health services. There are also a range of private services providing secondary and tertiary inpatient, day hospital and clinic-based services. Public health services are provided by the ACT Government. At the time the data was gathered for this research, there was one health directorate, ACT Health, which provided clinical and governance functions. Clinical services are provided at a number of centres including the Canberra Hospital which provides acute inpatient and day services, outpatient services and pathology services; the University of Canberra Hospital which provides inpatient, day and outpatient rehabilitation for adults requiring care due to mental illness, surgery, physical illness or injury; and community-based primary and secondary health services delivered in community health centres, forensic settings and walk-in-centres, as well as in people’s homes. ACT Health is also responsible for strategic policy, Territory-wide planning, research and population health.
1.4.3 Obesity in the Australian Capital Territory

Rates of Obesity

Rates of obesity in the ACT are generally lower than the rest of Australia but are still a major contributor to the burden of disease. In 2014–2015, 63.5% of ACT adults were classified as either overweight or obese. This equates to approximately 114,000 (39.1%) adults being overweight and 69,800 (23.9%) in the obese range. These rates are a significant increase from two decades ago when only 22.9% of ACT adults were overweight and 7.2% were obese (11).

The proportion of people who are overweight or obese is not consistent across age groups. Only 40% of 18 to 24-year olds fall into this category whilst amongst adults aged 45 to 54 years, 70% are overweight and obese. A current longitudinal study following three age cohorts of ACT and Queanbeyan residents is showing that this pattern of weight accumulating as people reach their 40s is becoming more pronounced with successive generations. For example, the youngest cohort (born 1979–1984) at reaching age 37 had a 55% rate of overweight and obesity whilst at a similar age, those in the cohort born 1959 to 1964 had rates at 50%. A continuation of this trend will mean that the younger generation, upon reaching their 40s and 50s, will be substantially heavier than the older generation at the same age. Rates of overweight and obesity amongst children have recently shown a downward trend in the ACT but continue to sit at levels which are of concern with regards to the health of the population. In 2016, 11.8% of children in kindergarten (aged approximately 5–6 years) were overweight, whilst 3.6% were obese. Year 6 students (aged approximately 11–12 years) had rates of 21% being overweight or obese (12).
Risk factors for obesity

A key protective mechanism against a person being overweight, and in reducing the risk of a range of chronic diseases, is adequate fruit and vegetable intake (13). In the ACT consumption amongst adults continues to be low with about 1 in 10 adults consuming the recommended five servings of vegetables and just over half consuming the recommended two serves of fruit. For children, just over a third eat the recommended servings of fruit but less than 10% eat enough vegetables.

Physical activity is also an important factor in maintaining healthy weight. It is recommended that adults engage in a minimum of 150 minutes of moderate-intense or 75 minutes of vigorous activity a week. In the ACT approximately two-thirds of adults reach this minimum. For children, the recommendation is that they do a minimum of 60 minutes physical activity a day. Only 45% of children achieve this in the ACT (12, 14).

In the broader Australian population, socio-demographic factors are significant in the distribution of rates of obesity. Socio-economic inequalities do occur within the ACT population but there is a view that as two-thirds of the population sits within the overweight category, socio-economic determinants are not the primary factor (10).

1.4.4 Australian Capital Territory Obesity Prevention Policies and Programmes

In October 2013, the ACT Government released the Healthy Weight Action Plan. This was in response to a rapid rise in obesity which was having an impact on individuals as well as adding a significant burden to the health system through increasing rates of preventable disease. The Action Plan was developed by a taskforce which was made up of government and non-government groups with an interest in the impact of chronic disease on health (15).
The Action Plan was designed to take a cross-government approach to halting the increasing rates of obesity by targeting key risk factors, particularly nutrition and physical activity. The aim was to move away from the concept that obesity is solely the responsibility of health services by focusing on actions which could achieve positive health and non-health outcomes simultaneously (10). This was to be done by focusing on six key areas – the food environment; schools; workplaces; urban planning; social inclusion and evaluation.

Proposed actions included improving access to infrastructure to encourage active transport, reducing the availability and marketing of energy-dense, nutrient-poor food and increasing the availability of free drinking water.

The overall aim of the plan was to emphasise that action on obesity extends beyond the remit of health services, with ACT Health tasked with leading just two of the action areas – the food environment and evaluation, specifically, the provision of accurate and timely population-based data. Figure 2 provides an outline of the action plan themes, lead agencies and specific actions.
Figure 2 Key actions of Healthy Weight Action Plan (10)

The plan was last evaluated in 2016–17 and showed progress against a number of goals relating to improving access to healthy food and physical activity in school and work environments, enhanced urban planning, and enhanced data availability. From the baseline measures taken in 2010–12, there was no change in overweight and obesity rates (16).

A challenge of the policy has been in addressing the complexity of obesity through measurable actions (10). Whilst the main focus of the action plan was on population-based initiatives, it should be noted that the concept of individual responsibility and choice was also emphasised. The Minister’s foreword states ‘It (the Plan) will not lessen individual
Whilst the plan noted that weight loss at an individual level is key to reducing mortality rates linked to obesity-related diseases, the prescribed actions did not extend to secondary prevention, that is, preventing illness once excess weight is present. There were no actions which relate to the delivery of prevention by the clinical services of Canberra Health Services. To address this gap, an ACT Obesity Interest Network was established, with the aim of improving health outcomes for people with obesity through improved clinical data collection and the improvement of existing services. This led to a successful funding proposal for an adult Obesity Management Service (OMS) providing multidisciplinary treatment for adults with class III obesity (BMI >40 kg/m²). This group was targeted as the evidence suggested that those with a lower class of obesity could be managed by general practices whilst people with a body mass index (BMI) greater than 40 and with multi-morbidities should have access to a suitable multidisciplinary service and, where appropriate, publicly funded bariatric surgery (17).

The OMS commenced seeing patients in early 2014 and very quickly developed a very long waiting list. The stated aim of the service is to help patients to achieve a healthier lifestyle and reduced risk factor profile through case management, nutrition education, physical activity programs, addressing barriers to social and emotional wellbeing, and where appropriate care coordination for patients with complex co-morbidity and referrals to other specialities. The focus of the service has evolved to be primarily on weight loss supported by
these services plus the provision of very low energy diets or pharmacotherapy. Publicly funded bariatric surgery commenced in late 2017 (18).

*Healthy Food and Drink Choices Policy*

Following on from the food environment priority of the Healthy Weight Action Plan, in 2016 the ACT Government introduced the Healthy Food and Drinks Choice policy (19). The purpose of the policy was to increase the availability of healthy food and drink choices across ACT Government sites. It directed that all food outlets, catering and fundraising-supplied food and drinks adhere to a traffic light system, a classification system for categorising nutritional content. The aim was for the majority of foods supplied to be ‘green’ (low salt, sugar and fat), with some ‘amber’ (variable nutrients and kilojoules) and a very limited amount of ‘red’ (low in nutritional value, high in kilojoules).

1.5 The Researcher’s Role within ACT Health

In undertaking this research, I sit within dual roles – that of researcher and of employee of ACT Health. I am a health professional who has worked in hospital and community-based public health service for many years. My primary role throughout the research was as a project officer within a chronic disease management unit.

An important element of this research was being able to create a divide between my two roles. As a project officer, I am provided with distinct project boundaries and often work to an organisational directive. As a researcher, and specifically as a qualitative researcher, my role wasn’t to reflect the needs of the organisation but to access the opinions, views and feelings of the study participants and to undertake analysis within the context of the current literature and policy landscape (20). At the same time, I needed to be cognisant that the
people I was interviewing were my colleagues, some of whom were in more senior roles and some more junior. My experience of being part of the system, my relationships with those I was interviewing and my career as a clinical health professional are all factors that could potentially impact on the way I conducted my research and more importantly, what I brought to data analysis.

However, these factors were not obstructions to me conducting the research. A researcher will always have potential to bring their preconceived ideas and biases into their research. The key is to be able to identify those factors and then put them aside (21). I did this by working with secondary researchers (my thesis supervisors) who appraised my research approach and audited my data analysis to assist in identifying any bias seeping into the research.

It is also important to recognise the advantage of being a part of the system. My knowledge of the system – its organisational structure and its processes – enabled me to design and conduct the research in a way that made sense for this particular system. Having pre-existing collegiate relationships with many of the participants gave a more direct line of contact and may have also helped them feel more comfortable in contributing to my data. Being a clinician with policy experience also provided me with practical knowledge and experience of the language of the organisation, including jargon and acronyms unique to the ACT system. I cannot completely remove ‘self’ from this research (22), but through self-reflection, referring to the work of others and incorporating the feedback of the secondary researchers, there is the opportunity for the role of self to enhance this research process and the eventual outcomes.
1.6 Conclusion

The aim of this research was to examine the potential for a secondary health service to incorporate obesity prevention into its service delivery and by utilising a systems approach, examine how local perspectives, relationships and system boundaries may enable or hinder the ability of secondary health services to incorporate adult obesity prevention into practice. The ACT is a suitable study context as it provides secondary health services to a population whose obesity profile is comparable to other jurisdictions within Australia. By being positioned within the local health service, the researcher has the opportunity to utilise their knowledge of the system to address the research aims.
Chapter 2: INTRODUCTION

Obesity, Prevention and the Australian Health System

Chapter Overview

This chapter provides an overview of the central elements to be examined within this thesis. It begins with a summary of chronic disease before introducing the focus topic of obesity. It then goes on to outline the area of intervention being considered, namely prevention and the context within which this will be examined, the Australian health system.

2.1 Introduction

With the advent of techniques in communicable disease control including vaccinations, antibiotics and infection control, the risk to mortality from transmissible conditions has significantly decreased (23). The modern health system is instead faced with the growing impact of non-communicable diseases, particularly those related to lifestyle factors (24). As people survive into older age, they are more likely to be living with at least one, and in many cases, more than one, chronic condition (25, 26). In Australia, chronic disease is the major cause of death and disability, with rates highest amongst socially disadvantaged groups (27).

To address this issue and achieve population-wide shifts in the prevalence of chronic disease requires long-term planning, with a combination of universal and targeted approaches (28). However, even as the cost of health treatment increases, the economics of prevention continues to be debated. Though the upfront costs may be relatively small, the outcomes can be difficult to measure and often do not manifest for many years. Conversely, the consequences of not preventing chronic disease are costly both to the health system through treatment costs and to the larger economic picture through lost productivity (29).
There is no one size fits all solution to address the complexities of chronic disease (30, 31).

This does not mean that taking action should be avoided but rather, that different approaches need to be taken in different settings, even when the overall goal is the same (32). Research, interventions, evaluation and ongoing monitoring should occur in a range of settings such as schools and workplaces along with changes to infrastructure such as transport (33).

2.2 Chronic Disease

Chronic diseases, also referred to as chronic conditions or non-communicable diseases, have key characteristics that distinguish them from acute conditions. These are:

- Complex causality, with environmental, social and behavioural factors as potential contributors
- Long latency period between potential causes and onset
- Impact over a prolonged period
- Functional impairment or disability attributable to the disease
- Generally do not resolve spontaneously and cannot be completely cured, but not often the direct cause of death [3].

One-third of Australians have at least one chronic disease with many managing more than one (34). The cost to the health system is significant with over a third of the Australian health budget attributed to chronic disease management (33). Furthermore, people with chronic disease are more likely to be unemployed than those without chronic disease, leading to lost productivity [2].
The major risk factors impacting on the prevalence of chronic disease are smoking, physical inactivity, poor diet and harmful use of alcohol [3]. If these risk factors were to be eliminated, the prevalence of heart disease, stroke and type 2 diabetes would be reduced by 75% and cancers by 40% [4]. Whilst many chronic diseases are considered to be preventable, it is important to note that the causes are complex, influenced by a number of factors including the physical and social environment in which people live. Consequently, designing and implementing preventive interventions is challenging, with a multilevel, multisector approach required for greatest effect [5].

2.3 Obesity

A major risk factor for many chronic diseases is being obese (35). Obesity can lead to heart disease, cancer, kidney failure and type 2 diabetes as well as being linked to reduced productivity and higher healthcare costs (36) (37). Being overweight can also impede the management of chronic conditions; it is the second highest contributor to burden of disease and can reduce quality-adjusted life expectancy (38). The risk of death associated with obesity increases with age and BMI, with the estimated years of life lost greatest in obese younger adults (39, 40). Productivity may be impacted by a person’s weight, with a link between obesity and absences from work and the occurrence of workplace injuries (41). For the individual with obesity, carrying excess weight can lead to physical impairment, psychological issues and a reduction in overall quality of life (28).

Obesity has always been recognised as being a condition outside normal limits, one which may create social and physical handicaps. The health implications of obesity, and the cost of these, only started to be analysed in the early 20th century by the American health insurance
industry. In the 1980s obesity began to be recognised as a major clinical and public health problem, firstly in developed countries before spreading to developing nations (42). Language such as ‘obesity epidemic’ is now frequently used and obesity is typically framed as a global problem, with modelling predicting an ever-increasing list of associated consequences (43).

**What is obesity?**

The term obesity is often used colloquially as a derogative term to refer to someone who appears to be of larger size than is considered to be the norm. As a clinical term, obesity refers to an excess accumulation of body fat to the extent that it impacts on a person’s health. The classification of obesity is most commonly based on body mass index (BMI), calculated by using the formula BMI = kg/m² (weight in kilograms divided by the square of height in metres). For adults, a BMI of between 25 and 30 is considered to be overweight. Greater than 30.0 is considered to be obese, with the risk of co-morbidities increasing to very severe for people with a BMI > 40.0. BMI is used for children and adolescents but rather than obesity being determined at a particular BMI, consideration is given to age and gender, based on tables developed in based on data from the late 1980s to the early 1990s (37, 44).

A BMI over a certain level is not a conclusive identifier of disease or even disease risk. The cut-offs for BMI are based on a general risk for associated co-morbidities but do not necessarily allow for differences in mass based on fat and muscle ratios (42). Whilst not a definitive tool, it does provide an objective basis with which to begin to consider the potential factors influencing a person’s health risk profile and should be used in conjunction
with waist circumference, intra-abdominal or central fat accumulation and lifestyle factors such as diet and physical activity levels and a thorough review of a person’s medical history (39, 40).

**How prevalent is obesity?**

Obesity rates are on the rise in the majority of developed nations, with rates of obesity worldwide having tripled since 1975. In 2016, 39% of the adult population were overweight and 13% were obese (45). In Australia, approximately two-thirds of adults are overweight or obese. This rate has steadily increased over the past twenty years. Rates of overweight and obesity differ by gender with more men (71%) than women (56%) being overweight but with similar rates of obesity across the genders, sitting at approximately one-quarter of the population (37). Approximately a quarter of Australian children are overweight or obese (34, 37).

In Australia, obesity has been a national health priority area since 2008 (46). Whilst overweight rates (BMI 25–30) have remained stable, there has been an increase in the rates of obesity (BMI >30). This change in proportions is significant as it potentially further increases health service costs (47). Obesity rates are higher in lower socio-economic groups. It was estimated that in Australia in 2011 the prevalence of overweight and obesity was responsible for 7% of the total health burden, which includes higher health care costs as well as greater demand. The annual cost to the economy through factors such as lost productivity, carer costs, welfare payments, reduced taxation revenue and the provision of aids and equipment is estimated to be approximately $8.6 billion (47). Internationally,
Australia ranks fifth highest amongst countries belonging to the Organisation for Economic Co-operation and Development (OECD) (11).

*What causes obesity?*

The causes of obesity are complex and multifaceted. At an individual level it may be easiest to see an accumulation of weight as an energy imbalance, that is, more energy is consumed than is used. In a small number of cases, an excess of weight can arise from a medical issue, including as a side effect of medication. For the majority of people, an interplay between physical, social, environmental and economic factors will impact on their weight and their ability to manage their weight (37).

Globally, there has been a marked change in dietary intake, with increased consumption of high calorie food with higher proportions of added sugar and fat plus an overall decrease in fruit and vegetable intake. Social inequity compounds dietary issues as high-quality food is often more expensive or harder to access whilst energy-dense food is often relatively cheap and readily available. Dietary changes are compounded by a reduction in energy expenditure as the physical demands of paid and domestic work have reduced, and a reduction in leisure activities has seen an increased focus on sedentary screen-based activities. Whilst the combination of factors will differ between individuals, the feature in common will be the complexity in the way those elements interact (37, 45, 48).

*2.4 Prevention*

The World Health Organization defines prevention as *approaches and activities aimed at reducing the likelihood that a disease or disorder will affect an individual, interrupting or slowing the progress of the disorder or reducing disability*. Preventive or preventative
healthcare includes the prevention of illness, the early detection of a specific disease, and the promotion and maintenance of health (33).

Chronic disease prevention may be subdivided, based on the focus of the intervention, into one of three categories:

1. Primary prevention aims at reducing the likelihood of disease developing and may include interventions such as wide scale vaccination or educational campaigns to improve diet.

2. Secondary intervention aims to prevent the progress of a disease at an early stage, for example cancer screening programmes.

3. Tertiary prevention aims to reduce the impact of an existing condition and can include interventions such as cardiac rehabilitation (33, 49, 50).

There is some crossover between the categories, and approaches will also be influenced by risk factors such as socio-economic status and ethnicity. A fundamental learning from previous public health initiatives is that effective prevention relies on collaboration between a number of sectors. For example, smoking cessation interventions are supported by legislation which specifies where people can smoke and how much it costs them.

Communicable diseases have been controlled by mass vaccination programmes as well as improved water supply and housing. Achieving population wide shifts in the prevalence of non-communicable diseases, including obesity, requires long-term planning, with a combination of universal and targeted approaches. The overall aim of this approach is to develop systems relevant to the community being served, including early detection, improved collaboration between sectors and a focus on population outcomes in order to address health inequities. Research, interventions, evaluation and ongoing monitoring
should occur in a range of settings such as schools and workplaces along with changes to infrastructure such as transport and access to areas to safely undertake physical activity (51-53).

2.5 Obesity Prevention

The causes of obesity are a complex combination of biological, environmental and individual factors creating a different set of circumstances for each individual. If obesity and its associated issues are to be prevented, there needs to be a menu of responses tailored to the local environment and circumstances. This may include population health-based responses such as improvements to infrastructure to encourage physical activity, legislation to regulate the advertising of energy-dense foods or school-based education programmes on healthy eating. There is also a documented need for individual interventions to support people to adopt lifestyle choices which will minimise the risk of weight gain and the development of associated chronic disease (51).

The World Health Organization (WHO) highlights the prevention of obesity as being crucial to reducing the impact of non-communicable disease. However, the complexity of this goal should not be overlooked and the Global Action Plan for the Prevention and Control of Non-communicable Diseases 2013–2020 (54) sets the modest target of initially halting the rising prevalence rates rather than seeing obesity as an issue that can be eradicated. To date, despite the majority of countries having implemented a range of responses, no one country has managed to halt the overall rise. In the absence of a quick fix or one-size-fits-all approach, it will take communities time to identify the best combination of responses as
well as time to change community and political perspectives in order that the full menu of responses can be implemented.

The US Centres for Disease Control and Prevention (CDC) recommends a combination of four key elements to support obesity prevention:

1. Epidemiology and surveillance to monitor trends and inform programmes;
2. Environmental approaches that support healthy behaviours;
3. Health system interventions;
4. Developing community resources linked to clinical health services for ongoing chronic disease management (52).

There is an argument to be made for focusing obesity prevention efforts on children. Within a younger population there is the opportunity to implement population-based programmes through settings such as schools. These aim to embed more positive eating and physical activity habits early to limit excessive weight gain. This can be supported by targeted interventions which aim to provide the opportunity for children to ‘grow out’ of being overweight or obese as opposed to the much more difficult goal of trying to support them as adults to lose weight. However, as children are part of a family unit, treating parental overweight may have the strongest effect on the determinants of childhood obesity if the parents are supported to apply lifestyle changes to the whole family (55).

For the adult population, the first step in obesity prevention is a population health approach to prevent people from becoming overweight. Behaviour can be influenced through strategies such as changes to the environment to encourage physical activity and taxing of unhealthy foods to influence food choices. More targeted approaches aimed at encouraging
individuals to consciously change their behaviour may include things such as providing healthy food choices in the workplace and promoting appropriate portion sizes through marketing campaigns (53). There is a growing body of evidence for population strategies that do work, though evaluation is complex and true results may take a generation to become apparent.

Does Obesity Prevention Work?

Many successful prevention campaigns in Australia, including reducing rates of smoking, reducing car accident deaths and reducing deaths from communicable disease have delivered significant health gains which may lead to a view that obesity prevention should take the same approach. However, those issues, while complicated, are not necessarily complex. Wearing seatbelts can be legislated for and can save lives. Immunisation reduces the spread of communicable disease. Anti-smoking campaigns, while politically fraught, can focus on getting people to stop. Interventions which target what volume and types of food people consume and how much energy they expend are not so easy (51).

A combination of supporting people who are currently overweight to attain modest weight loss and preventing further increases in those who are obese may eventually see a decrease in overall rates of obesity and therefore a decrease in associated costs. The interventions with strongest evidence include a reduction of the advertising of energy-dense food, family-based targeted programmes for obese children, gastric banding for adults and adolescents, and diet and exercise. However, when these are studied, they do not necessarily take into account the circumstances surrounding the person being targeted (43).
A general link between weight gain or maintenance and diet and levels of physical activity is well established (14). However, what the ideal diet and levels of activity look like will be different for each individual. This issue is exacerbated by the wide variation in the delivery and evaluation of obesity prevention programmes, which makes it difficult to provide a definitive solution based on the evidence. For example, a systematic review looking at diet interventions to support weight loss maintenance found that while there are a lot of interventions being trialled, very few are successful (56). A review of systematic reviews and meta-analysis to look at the effectiveness of obesity prevention programmes focused on individual change. Whilst the majority of reviews presented generally favourable outcomes, effects were limited and not always statistically significant. Overall, dietary interventions appeared to have the greatest effect on overweight or obesity, with a greater range of variability for physical activity interventions. However, whilst increasing physical activity may not necessarily lead to significant weight loss it does have other benefits such as improving muscle strength and supporting bone health. Combining an increase in physical activity and dietary changes provided the best results across all age groups. What this review also found was that there is great difficulty with accurately measuring the population effect of community-based obesity prevention programmes (57).

For interventions at an individual level, the primary goal is often helping people to lose weight. Research has shown that many people with obesity set out with the goal of losing more than 25% of their body weight, which in many cases is not achievable or sustainable. An analysis of 10 years of data obtained from the UK Clinical Practice Research Datalink (database of longitudinal patient electronic medical records from primary care) found that the annual probability for obese men to attain normal body weight is 1 in 210 and for
women 1 in 124. This increases to 1 in 1290 and 1 in 677 for morbidly obese men and women respectively. For those who are morbidly obese, the annual probability of losing 5% body weight, an often-quoted figure to reduce health risks, was 1 in 8 for men and 1 in 7 for women. However, at least 50% of these people regained the weight within two years. The data also showed that approximately a third of all people recorded in the dataset experienced weight cycling (i.e. losing then gaining weight) with the proportion increasing amongst obese individuals (58). If the outcome of obesity treatment is seen as being weight loss, if this does not occur, ‘treatment’ may be perceived as having failed (59). A prevention approach provides an opportunity to shift to a broader set of health and wellbeing outcomes.

Scaling up interventions which are successfully trialled under controlled circumstances is an ongoing challenge (60, 61). Barriers to effective implementation include a lack of political will, exacerbated by a public perception of obesity as an individual problem, particularly if the solution involves the regulation of industry or an action which might be perceived as impinging on people’s right to choose. For prevention to be effective at the level of the individual, there needs to be a societal shift to advocate for population-based measures, such as taxation and advertising restrictions and a shift away from the dominance of the medical model (62).

2.6 Obesity Prevention Policy

Despite the pervasive impact of obesity on the health of the population, Australia has limited population-based obesity prevention policies at a national level and no overarching obesity strategy. The focus of those policies which have been developed is on personal
responsibility at an individual level, for example the Australian Dietary Guidelines and Physical Activity and Sedentary behaviour guidelines; and self-regulation at an industry level, for example the Health Star Rating. Prevention activity is not routinely integrated into health services, even where evidence is available (63).

The Australian National Preventive Health Agency was established in January 2011 to drive national preventative health policy and programs. It resulted from the 2008 goal of the Council of Australian Governments to reduce the prevalence of preventable disease, to foster research, to promote the use of social media as ways of communicating preventive messages to the community, and a recognised need to advocate nationally for changes (64). The role of this agency was underpinned by the National Partnership Agreement on Preventive Health 2009–2018 which was developed with the aim of building on previous initiatives. The agency was disbanded in May 2014 before its full impact could be realised (65).

A select committee into the obesity epidemic was convened in May 2018 and reported in November 2018 (66). The committee recognised the rising rates of obesity in Australia and the links between obesity and poor health outcomes. The committee highlighted the lack of an overarching policy and recommended that a whole-of-government approach was needed. The key practical recommendations to enhance prevention were:

- establish a national obesity strategy with implementation overseen by a National Obesity Taskforce
- improve the Health Star rating system and make adoption of the system mandatory
- put limits on the advertising of discretionary foods
- encourage food reformulation, for example through a tax on sugary drinks
- education campaigns.

The committee also recognised that health interventions are essential for someone who is already obese and as such obesity should be formally recognised as a chronic disease. There are a range of health services-based modalities available to treat adult obesity including pharmacotherapy, behavioural therapy and bariatric surgery. As well as the treatment of weight-related conditions, the health system has a key role to play in obesity and overweight prevention, with some crossover between what might be considered prevention and what might be seen as treatment.

Along with outlining these specific actions, the committee highlighted the stigma that accompanies obesity and potential issues with the use of the word obesity. They recognised that in a clinical setting it is seen as medical terminology but there may be benefit in not using the term in broader community-based communication. This could include moving the emphasis of programmes from weight to health (66).

2.7 The Australian Health System

The Australian health system is a complex web of different funders, providers and governance systems delivered across many levels including public health and preventive services in the community, primary health care, emergency health services, hospital-based treatment, and rehabilitation and palliative care (33).

Health care providers fall into one of three categories: primary, secondary or tertiary healthcare. Primary health care is delivered in a variety of settings, including general practices, community health centres and allied health practices, and includes a range of
activities, such as health promotion, early intervention and management of chronic conditions. For many people, a primary care clinician will be their first point of contact within the health system. ‘Secondary care’ encompasses medical care provided by a specialist or ongoing services by allied health professionals such as physiotherapists and occupational therapists. Tertiary health care encompasses highly specialised health care, often for inpatients, including complex medical or surgical procedures (67). Figure 3 provides a broad overview of the role of the three levels of delivery.

![Figure 3 Levels of healthcare](image)

In 2015–16, health spending in Australia was estimated to be $170.4 billion. This represents a share of 10.3% of Gross Domestic Product. Expenditure is growing at a rate of approximately 4.8% each year (68). Much of this growth can be attributed not to population growth but to the increased prevalence of chronic conditions (33).

The largest proportion of government funding is for hospitals (39%). Public hospitals make up approximately two-thirds of hospital beds and are primarily operated by state and territory governments. They provide most emergency department and outpatient services
whilst private hospitals provide the majority of elective surgery. Hospitals include both admitted and non-admitted services. Often an individual’s first contact with health services is through primary healthcare, more specifically a general practitioner (GP) with the average Australian having five visits a year to their GP (69). As well as providing treatment, primary care acts as a gateway to ‘secondary care’ services which include services provided to people admitted to public or private hospitals as well as non-admitted services (69). A non-admitted service is a unit or organisational arrangement under which a hospital provides services for individuals not admitted to hospital. Figure 4 shows the distribution of Australian health care expenditure (68).

![Figure 4 Distribution of Australian health care spending](image)

**Prevention in the Australian Health System**

The health system is an essential contributor to the prevention system with interventions such as high blood pressure detection and control or smoking cessation support amongst some of the most cost-effective clinical interventions. However, prevention activity is not routinely integrated into Australian health services, even where evidence is available (63).
Of total health expenditure, just 1.7% is allocated to public health activities, including immunisation, health promotion activities that encourage a healthy lifestyle and reduce health risk factors, and cancer screening programs (70). This level of spending is low in comparison to other Organisation for Economic Co-operation and Development (OECD) countries, with Australia ranked third lowest in 2010–11 (33).

2.8 Conclusion

The causes of obesity are complex with a combination of biological, environmental and individual factors creating a different set of circumstances for each person. Consequently, responses to obesity need to be multifactorial and tailored to the local environment and circumstances (51). There is a growing base of evidence in relation to how obesity prevention programmes should be formulated and delivered across a number of different settings and populations, including population health-based responses such as improvements to infrastructure to encourage physical activity, legislation to regulate the advertising of energy dense foods, and school-based education programmes focused on healthy eating.

There is also a need for individual interventions to support people to adopt lifestyle choices which will minimise the risk of weight gain and the development of associated chronic disease. The health system has a key role to play in this component of prevention. The role of general practice and, to a degree, primary healthcare more broadly has been described as requiring a focus on good assessment, advice-based joint goal setting, and arranging referral to appropriate support or treatment options (51, 71). The role of other aspects of the health service has been less well described and consequently there is not clear direction for the
incorporation of prevention into treatment services. Changing health service practice is not
a simple matter of injecting more resources or writing a new policy. It is also important to
assess the readiness to change of various levels of the system – the national and local
environment, the organisations delivering care, and the components of the organisations at
unit level through to an individual practitioner level (72).

There needs to be a balance between outcome and process evaluation, taking into account
the impact of the settings’ cultural and organisational factors (73). This research focussed on
not just what works in specific settings in relation to obesity prevention but took a systems
view of the role of health services in the prevention of obesity and in doing so investigated
what the barriers and enablers are to move to a prevention focus.
Obesity prevention and the role of hospital and community-based health services: a scoping review

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Abstract

\textbf{Background:} Control of obesity is an important priority to reduce the burden of chronic disease. Clinical guidelines focus on the role of primary healthcare in obesity prevention. The purpose of this scoping review is to examine what the published literature indicates about the role of hospital and community based health services in adult obesity prevention in order to map the evidence and identify gaps in existing research.

\textbf{Methods:} Databases were searched for articles published in English between 2006 and 2016 and screened against inclusion and exclusion criteria. Further papers were highlighted through a manual search of the reference lists. Included papers evaluated interventions aimed at preventing overweight and obesity in adults that were implemented within and/or by hospital and community health services; were an empirical description of obesity prevention within a health setting or reported health staff perceptions of obesity and obesity prevention.

\textbf{Results:} The evidence supports screening for obesity of all healthcare patients, combined with referral to appropriate intervention services but indicates that health professionals do not typically adopt this practice. As well as practical issues such as time and resourcing, implementation is impacted by health professionals’ views about the causes of obesity and doubts about the benefits of the health sector intervening once someone is already obese. As well as lacking confidence or knowledge about how to integrate prevention into clinical care, health professional judgements about who might benefit from prevention and negative views about effectiveness of prevention hinder the implementation of practice guidelines. This is compounded by an often prevailing view that preventing obesity is a matter of personal responsibility and choice.

\textbf{Conclusions:} This review highlights that whilst a population health approach is important to address the complexity of obesity, it is important that the remit of health services is extended beyond medical treatment to incorporate obesity prevention through screening and referral. Further research into the role of health services in obesity prevention should take a systems approach to examine how health service structures, policy and practice interrelationships, and service delivery boundaries, processes and perspectives impact on changing models of care.

\textbf{Keywords:} Obesity, Prevention, Health services

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Background
Chronic diseases place a significant burden on the Australian healthcare system. They account for 90% of all deaths [1] and significantly reduce quality of life [2]. Being obese is a major risk factor for many chronic diseases including heart disease, cancer, kidney failure, pulmonary disease and diabetes [3, 4]. Being overweight can impede the management of chronic conditions and is the second highest contributor to burden of disease. Obesity has been shown to reduce quality-adjusted life expectancy [5].

The World Health Organisation (WHO) highlights prevention of obesity as an important priority to reduce the impact of non-communicable disease. Both supporting people who are currently overweight to attain modest weight loss as well as preventing further increases in weight may eventually see a decrease in overall rates of obesity and a reduction in the rates of chronic diseases [6] and therefore a decrease in associated costs [7].

International guidelines recommend that preventive care be provided across the whole health system, integrated into ‘curative’ or disease management focused consultations, regardless of age or health status [8]. For obesity prevention, there are specific guidelines for the role of the general practitioner, for example the Royal Australian College of General Practitioners ‘Guidelines for preventive activities in general practice’ [9]. However, the prevention role of hospital and community health services is not as clearly articulated, particularly in relation to an adult population.

In this research we present a review of published literature investigating the role of hospital and community based health services in adult obesity prevention. The aim is to improve understanding of the role for hospital and community based health services in prevention as well as the potential enablers and barriers to the delivery of preventive health services in order to inform future research to support the development of obesity prevention guidelines applicable to a range of health service settings.

Methods
A scoping review [10] was conducted to map evidence and identify gaps in the extent, range, and nature of research undertaken in relation to the role of health services in obesity prevention. The focus of the review was on hospital and community based health services as unlike primary care, the roles of these services in obesity prevention are not clearly outlined in clinical guidelines.

Research question
The overarching question for this scoping study was: What does the peer reviewed literature reveal about the role of adult health services (excluding general practice) in the provision of obesity prevention and what are the key elements of implementation?

Data sources and search
Three databases (CINAHL and Medline concurrently and PubMed) were searched for references containing the words “obese” AND “prevent” AND “healthcare/health services” AND “adult”. Medline and CINAHL were searched concurrently to cover medical, nursing and allied health research. PubMed was searched to pick up those articles not yet assigned MESH headings. For practical reasons, the scope was limited to articles published in English between 2006 and 2016 (November). The Cochrane database was searched using the phrase “Prevention of overweight and obesity” to include systematic reviews conducted in the last 10 years.

Inclusion and exclusion criteria
As the aim of the review was to highlight clinical interventions as well as issues relating to implementation, papers were included if they fell into any of the following categories: (1) Evaluation of a specific hospital or community health based obesity prevention intervention; (2) Clinical guidelines featuring obesity prevention; (3) Systematic or scoping reviews of health service based obesity prevention or (4) Empirical description of obesity prevention within a health setting. A fifth category was identified in the process of undertaking the review: (5) Health staff or health service consumer perceptions of and beliefs about obesity and obesity prevention. For each of these categories, the focus of the intervention was on services for adults. We included primary studies as well as literature reviews.

Articles that were excluded were those that:
- focused on prevention of childhood obesity;
- were medical treatments aimed solely at weight loss, such as surgical or pharmaceutical interventions;
- described an intervention that did not take place in a health setting or if that setting was focused solely on the role of general practitioners.

Papers were also excluded if they described obesity or associated disease but did not focus on interventions with a goal of prevention or if the focus was on population health initiatives that were not within the remit of health services, such as introducing food taxes. Opinion pieces and editorials were not included.

Data extraction
All articles were reviewed and divided into the categories described above. Information was summarised using a standardised extraction form developed for the review (see Tables 1, 2, 3, 4, 5) to identify the clinical areas where prevention is effective and the fundamental elements of implementation.
<table>
<thead>
<tr>
<th>Study (author, year, country)</th>
<th>Clinical focus</th>
<th>Intervention participants, setting duration</th>
<th>Main findings and limitation</th>
<th>SAs focus (Ask, Assess, Advise/Agree, Assist, Arrange)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jackson et al., 2007 [11]</td>
<td>Health visitor (community nurse)</td>
<td>Specialist health visitor intervention aimed at addressing obesity 89 people with BMI &gt; 30 Community health 1 year</td>
<td>- Weight, BMI, BP decreased  - Self-reported diet changed (less sugar products, more fruit and vegetable)  - Positive feedback from participants  - Small numbers and short term follow-up</td>
<td>- Assess  - Advise  - Assist</td>
</tr>
<tr>
<td>Davis et al. 2008 [12] USA</td>
<td>Medical specialists (nephrology)</td>
<td>Education of doctors on behaviour modification, patient education, health literacy and communication 64 patient interactions observed pre and post education of doctors working in hospital based nephrology clinic Pre and post intervention evaluation</td>
<td>- Doctors communication improved post intervention  - Patients increased recall of weight based advice  - No assessment if intervention lead to patients making changes recommended.  - Small numbers, all in one clinic</td>
<td>- Ask  - Assess  - Advise</td>
</tr>
<tr>
<td>Mustila et al. 2013 [13] Finland</td>
<td>Maternity- Prenatal care</td>
<td>Non randomised, individual and group counselling for women at risk of gestational diabetes Measures: development of gestational diabetes, gestational weight gain, newborn anthropometry, infant weight gain Interventions commenced at 1—17 weeks gestational weeks, follow up to infant 12 months</td>
<td>- Reduced gestational glucose intolerance, no changes to gestational weight gain, newborn anthropometry or infant weight gain  - No long term follow-up to establish impact on childhood obesity or mother’s long-term weight</td>
<td>- Ask  - Assess  - Advise</td>
</tr>
<tr>
<td>Claesson et al. 2014 [14] Sweden</td>
<td>Maternity– Physical activity benefits during pregnancy</td>
<td>Obese women kept physical activity diaries during pregnancy and answered questionnaires looking at mental health, QoL at weeks 15 and 35 plus 11 wks post 74 physical active, 79 physically inactive</td>
<td>- Physical activity among obese pregnant women provides better psychological well-being and improved quality of life but does not change weight gain  - Self-reported data</td>
<td>- Ask</td>
</tr>
<tr>
<td>McElwaine et al. 2014 [15] Australia</td>
<td>Primary healthcare based nurses and allied health</td>
<td>Practice change intervention to increase PHC nurse and AH provision of preventive care. Non randomised two groups (intervention and control)- interviews with clients to ascertain benefit</td>
<td>- Increase in assessment and advice relating to risk behaviours (Ahn, Smith, &amp; Oty, 2012), but no change in referral rates for intervention or follow-up  - Highlights issues with implementation in real world settings</td>
<td>- Ask  - Advise  - Arrange (refer)</td>
</tr>
<tr>
<td>Bartlem et al. 2016 [16] Australia</td>
<td>Mental health</td>
<td>Trial to get community MH workers to increase preventive care by assessing for risk factors and referring person for intervention 12 month intervention</td>
<td>- Increase in assessment for nutrition risk  - No significant change in practice advice or referral</td>
<td>Modified 5As (2As and 1R)  - Ask  - Advise  - Refer</td>
</tr>
<tr>
<td>Wiggers et al. 2017 [17] Australia</td>
<td>Community-based preventative care</td>
<td>Practice change intervention with nursing and allied health community base staff delivering adult services over 12 months, aimed at increasing assessment, brief advice and referral for risk factors Interventions include developing policy and electronic medical record based tool; clinician and manager training; audit and feedback; implementation support</td>
<td>- Assessment enhanced but no significant change to rates of brief advice or referral</td>
<td>Modified 5As (2As and 1R)  - Ask  - Advise  - Refer</td>
</tr>
<tr>
<td>Study (type, author, year)</td>
<td>Clinical focus</td>
<td>Summary of review</td>
<td>Main findings and limitations</td>
<td>5As focus (Ask, Assess, Advise/Agree, Assist, Arrange)</td>
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<tr>
<td>Cochrane review Flodgren et al. 2010 [19]</td>
<td>Health professional change</td>
<td>Interventions to change the behaviour of health professionals and the organisation of care to promote weight reduction in o/o adults (RCTs) 6 RCTS- 246 health professionals and 1324 o/o pts</td>
<td>Limited evidence on how to organise care to include prevention. None of the studies evaluated strategies aimed at changing health professionals attitudes or beliefs. N/A focused on changing health professionals behaviour.</td>
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<tr>
<td>Review of reviews Kremers et al. 2010 [20]</td>
<td>Adults</td>
<td>Lit review of interventions targeting prevention of overweight and obesity in adults Looked at 46 studies evaluating interventions aimed at preventing obesity. Interventions looked at setting and target group</td>
<td>More success amongst programmes targeting weight loss than at preventing CV disease or improving general health status. N/A- review focused on service specifically designed for weight management, not process for people to get into programmes. Focussed on interventions i.e. Assist and arrange.</td>
<td></td>
</tr>
<tr>
<td>Synthesis review Kirk et al. 2012 [21]</td>
<td>Adults</td>
<td>Synthesis of obesity management evidence Systematic reviews and meta-analysis</td>
<td>- Highlights the value of multi-component interventions that are delivered over the longer term, and reinforces the role of health care professionals. - Currently, few health professionals are advising their patients about weight management in general, even as the prevalence of obesity increases. Focussed on interventions not process of providing advice.</td>
<td></td>
</tr>
<tr>
<td>Review Vuori et al. 2013 [22]</td>
<td>Physical activity in health services USA</td>
<td>Literature review (2000-2013) of 'exercise training' counselling delivered in health services</td>
<td>Health benefits to physical activity but advice re: increasing is not routinely incorporated into health encounters. Focuses on physical activity in isolation, not how it can link to other lifestyle changes such as diet. N/A Focussed on outcomes not process of providing advice.</td>
<td></td>
</tr>
<tr>
<td>Systematic review Kushner and Ryan 2014 [23]</td>
<td>Clinical guidelines for adults</td>
<td>Systematic review to describe best practice for assessment and lifestyle management of obesity</td>
<td>Best practice for assessment lifestyle management of obesity is - Screen all adults for overweight, with full medical history - Offer weight loss via lifestyle change support for people with BMI &gt; 30 Does not discuss issues relating to factors such as health literacy or how to support people with reduced capacity to make lifestyle changes. Does not discuss any system issues with implementation. Ask Assess (not health literacy) Advise/ agree Assist Arrange.</td>
<td></td>
</tr>
<tr>
<td>Cochrane review Mastellos 2014 [5]</td>
<td>Adults</td>
<td>Transtheoretical model stages of change Looking at Dietary and physical exercise modification in weight loss management for overweight and obese adults 3 RCT studies, 2971 participants</td>
<td>Inconclusive that this model leads to sustained weight loss. The model focuses on 5 stages of change. However, did show changes to behaviour such as improved diet and physical activity. Studies didn’t tend to focus on other outcomes eg, QoL or rates of illness. N/A- looked at outcomes of specific interventions.</td>
<td></td>
</tr>
<tr>
<td>Author</td>
<td>Year</td>
<td>Country</td>
<td>Title</td>
<td>Summary</td>
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<tr>
<td>National Health and Medical Research Council</td>
<td>2013</td>
<td>Australia</td>
<td>Clinical practice guidelines for the management of overweight and obesity in adults, adolescents and children in Australia.</td>
<td>- Guidelines for management of individuals who have a body mass index (BMI) greater than 25.0 kg/m² and are at risk of comorbidities - Intended for use by clinicians including general practitioners, primary health care nurses - Follow the primary care '5As' framework</td>
</tr>
<tr>
<td>Royal Australian College of General Practitioners</td>
<td>2016</td>
<td>Australia</td>
<td>Guidelines for preventive activities in general practice. 9th edition</td>
<td>Aim to provide a practical approach to weight management in general practice with a focus on more intensive interventions</td>
</tr>
<tr>
<td>National Institute for Health and Care Excellence</td>
<td>2006 (updated 2015)</td>
<td>UK</td>
<td>Obesity prevention Clinical guideline [CG43]</td>
<td>Outlines role of health services in increasing physical activity levels and supporting improvements in diet</td>
</tr>
<tr>
<td>Moyer, V. A., 2011 [42] USA recommendations</td>
<td>2012 update of 2003</td>
<td>USA</td>
<td>Screening for and Management of obesity in Adults U.S. Preventive Services Task Force Recommendation Statement</td>
<td>Recommends all adults should be screened for obesity but that how this is done will be influenced by the individual patients circumstances as well as the health setting</td>
</tr>
<tr>
<td>Study (author, year, country)</td>
<td>Clinical focus</td>
<td>Study type</td>
<td>Main findings and limitation</td>
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</table>
| Lindstrom et al., 2005 [60] Finland | Obesity and Diabetes | Description of Finnish Diabetes Prevention Study, focussing on weight management | - Obesity needs to be seen as chronic condition and focus needs to be on behaviour change  
- Individuals require personalised, ongoing, long-term support to make and sustain lifestyle change  
- Screening high risk individuals in health settings and providing obesity prevention is effective in preventing Type 2 Diabetes |
| Lutfiyya et al. 2008 [24] USA | Medical services for adults | Analysis of 2003 Behavioural Risk factor Surveillance Survey to ascertain whether healthy weight patients receive primary obesity prevention advice | - Only a very small proportion of healthy-weight adults received primary prevention |
| Ma et al. 2009 [61] USA | Medical services for adults | Analysis of data from National Ambulatory Medical Care Survey- all patient visits in 2 year period Review of data for doctor visits to look at measurements for obesity plus rates of counselling | - Highlighted number of records that had data on weight and BMI missing plus low rates of intervention for people recorded as being overweight  
- Data based on one visit- not possible to track if individual received advice on other visits |
| Kemper 2010 [25] USA | Adults CVD risk/ BMI and need for weight loss counselling | Reviewed records from nursing lead centre against NHLBI guidelines as to whether people were told to lose weight and how appropriate this advice was. | - Small numbers, but only 12% counselled to lose weight and those that did receive advice, it wasn’t within guidelines  
- Patients in programme self-selected so not reflective of broader society; self-reported risk factors |
| Phelan 2010 [26] USA | Maternity- weight gain during pregnancy | Discusses negatives of excessive weight gain in pregnancy and interventions | - Interventions quite broad, doesn’t highlight definite solutions but does give good summary of reasons to act during pregnancy |
| Heslehurst 2011 [27] UK | Maternity | Broad description of shortcomings of maternity guidelines and potential issues in UK | - Recommends further research into effectiveness of intervention to support women before, during and after pregnancy |
| Post et al 2011 [28] USA | Medical physicians or other community based health professionals | Analysis of survey (2005–08) which included record of BMI and question re: being told about weight status by GP or other health professional and questions re self-identifying as overweight and desire to lose weight | - People told they were overweight more likely to recognise they were overweight and express desire to lose weight  
- Half of overweight and third of obese not told overweight  
- Based on self-reported recall of being provided weight advice |
| Ahn, Smith et al. 2012 [29] USA | Older adults (≥65 years) | Telephone and postal survey evaluating if a doctor or nurse had asked or given advice about weight, healthy diet, or physical activity Study aimed to investigate the correlates of health professional–patient discussions about body weight, healthy diet, and physical activity. | - Being moderately or severely obese, more chronic conditions, and more frequent physician visits increased the likelihood of being recognized as overweight or obese and reporting lifestyle discussions  
- Based on self-reported recall of being provided weight advice |
| Hernandez-Boussard et al. 2012 [63] USA | Community based medical practices | Analysis of data from National Ambulatory Medical Care Survey- all patient visits in 2 year period that recorded height and weight to ascertain whether obese patients receive same preventive care as non-obese | - Obese patients received significantly less preventative exams (e.g. mammogram, pap smear etc.), less tobacco and injury prevention advice and less psychological referrals but more diet, exercise and weight reduction education.  
- Data based on one visit- not possible to track if individual
### Table 4: Scope of literature by category. Category 4: Empirical description of obesity prevention within a health setting (Continued)

<table>
<thead>
<tr>
<th>Study (author, year, country)</th>
<th>Clinical focus</th>
<th>Study type</th>
<th>Main findings and limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oken et al. 2013 [30] USA</td>
<td>Maternity</td>
<td>Interviews regarding gestational weight gain and the use of electronic medical records to support clinical decision making Obstetric clinicians from one practice Duration N/A</td>
<td>- Advice regarding gestational weight gain variable may be enhanced by having clinical decision supports in electronic medical records - Small number of participants, all from one practice</td>
</tr>
<tr>
<td>Miller et al. 2014 [31] Australia</td>
<td>Maternity</td>
<td>A general discussion of reasons for including weight management in pregnancy services and reasons why this is not happening</td>
<td>- A very general summary - references selective research. Gives a good overview of issues but not a definitive solution. Touches on social issues but not in great detail</td>
</tr>
<tr>
<td>Study (author, year, country)</td>
<td>Clinical focus</td>
<td>Study type</td>
<td>Main findings and limitation</td>
</tr>
<tr>
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</tr>
<tr>
<td>Brown, Stride et al. 2007 [51] UK</td>
<td>Primary care nurses</td>
<td>Patterns of clinical practice, beliefs and attitudes of primary care nurses in relation to obesity management</td>
<td>Majority of nurses agreed - Obesity causes health problems - Patients not motivated to change but not due to lack of self-control - Empathy towards patients, rewarding to work with obese - Saw weight management as part of role - Did not find it awkward or sensitive issue to raise but patients perceived awkwardness. Nurses did not feel effective in role - Nurses with higher BMI less likely to have negative view towards obesity - Obesity an issue of lifestyle choice - Very few have specific training and didn’t think had organisational support</td>
</tr>
<tr>
<td>Durant et al. 2009 [32] USA</td>
<td>Community health</td>
<td>Survey to look at patient perception of health impact of weight. Analysis looked at ethnicity</td>
<td>- Large disparities on racial/ethnic grounds as to whether weight seen as negative for health - Those people whose health care provider had discussed weight had better understanding of health issues</td>
</tr>
<tr>
<td>Heslehurst et al. 2011 [33]</td>
<td>Maternity based health professionals</td>
<td>Qualitative interviews with staff working in maternity services on their views of maternity services role in caring for obese women</td>
<td>- Health and safety issues of working with obese women has improved but more needs to be done to address psychosocial issues, to provide clinical guidelines on weight management in pregnancy and population health initiatives to prevent obesity in pregnancy.</td>
</tr>
<tr>
<td>Smith et al. 2011 [34] (UK)</td>
<td>Maternal obesity</td>
<td>Semi-structured interviews and focus groups evaluating understanding of community based maternal obesity initiatives; community service providers views on maternal obesity services and their role in prevention and management of obesity</td>
<td>- Current public health and community service provision lacks structured maternal obesity objectives</td>
</tr>
<tr>
<td>Gunther et al. 2012 [35] United Kingdom</td>
<td>Doctors and nurses in primary healthcare</td>
<td>Barriers and enablers of managing obesity in GP Qualitative interviews Thematic analysis</td>
<td>- Barriers- stigma, cost of private services, previous patient experience, health professionals not wanting to take responsibility for obesity management; lack of consistency, lack of skills, lack of NHS services i.e. found lots of barriers - Highlighted that preventative measures that concentrate on attitudes, behaviour and short-term goals can be associated with significant health benefits</td>
</tr>
<tr>
<td>Nahm 2012 [50] USA</td>
<td>Nurses</td>
<td>Preventive health care behaviours of USA based nurses Online study asked about diet, exercise, weight, stress and preferred preventive health status</td>
<td>- Nurses were aware of appropriate preventive health measures but did not translate into their own self care</td>
</tr>
<tr>
<td>Leslie et al. 2013 [36]</td>
<td>Maternity- Gestational weight gain</td>
<td>Views of socially disadvantaged, O/O newly pregnant women on GWG and resources to help with this Survey at 12 week visit</td>
<td>- Lack of awareness of excessive GWG</td>
</tr>
<tr>
<td>Robson et al. 2013 [37] United Kingdom</td>
<td>Mental health-nursing role</td>
<td>Postal questionnaire to 585 mental health nurses to examine attitudes to physical health care</td>
<td>- Mental health nurses do feel they have role in giving advice on diet and exercise but not cancer screening or smoking cessation. - More positive attitudes amongst nurses who has received physical health training post registration</td>
</tr>
<tr>
<td>Schauer et al. 2014 [38]</td>
<td>Primary healthcare-doctors and nurses</td>
<td>Semi-structured interviews with 30 doctors, doctor assistants and nurses 3</td>
<td>- Clinicians report addressing weight with those who have weight-related chronic conditions, are established patients, or have a change in weight since the previous visit. - Most clinicians address weight in the context of managing or preventing chronic conditions.</td>
</tr>
</tbody>
</table>
### Table 5: Scope of literature by category. Category 5: Health staffs or consumers perceptions of obesity and obesity prevention (Continued)

<table>
<thead>
<tr>
<th>Study (author, year, country)</th>
<th>Clinical focus</th>
<th>Study type</th>
<th>Main findings and limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tol 2014 [46] Holland</td>
<td>Overweight or obese adults</td>
<td>Readiness to change and intentions round how to make change. On-line questionnaire for adults overweight or obese</td>
<td>- Many clinicians base advice on their own experiences with weight. - Found that adults who are medically in need of weight-related care are ready to lose weight, only a few intend to use weight related care.</td>
</tr>
<tr>
<td>Kable et Al 2015 [39] Australia</td>
<td>Nurses</td>
<td>Nurses perceptions, practices and knowledge with regard to providing healthy lifestyle advice to pts. O/O 676 surveys sent, 99 returned, 79 usable (15% response rate)</td>
<td>- Small numbers - 68% considered healthy lifestyle advice within scope; 28% calculated body mass, 44% mentioned physical activity solutions, 25% focused on reducing calories - Knowledge about weight management was variable</td>
</tr>
<tr>
<td>McElwaine et al. 2013 [8]</td>
<td>Community Health</td>
<td>Telephone survey of people accessing community health services regarding what preventive advice they received regarding risk factors (smoking, alcohol consumption, fruit and vegetable intake and physical activity)</td>
<td>- Generally preventive are not opportunistically provided. - Highest rates for smoking, lowest for fruit and vegetable consumption. - Favourable view towards receiving preventive advice</td>
</tr>
<tr>
<td>Bartlem et al. 2015 [40] Australia</td>
<td>Mental health</td>
<td>Telephone interviews with community mental health service clients re: engagement in smoking, fruit and vegetable consumption, alcohol consumption and physical activity</td>
<td>- High prevalence of risk behaviours plus high rate of people wanting to change behaviour</td>
</tr>
</tbody>
</table>
Analysis
The primary aim of analysis was to determine the main factors in delivering adult obesity prevention within a health setting. Analysis commenced with an examination of intervention type, sample size, setting and duration. Studies were then grouped into categories that were empirically derived from the type of studies identified as summarised in Tables 1, 2, 3, 4, 5. Analysis has been framed with the 5As framework [9] which is utilised as a preventative healthcare tool to identify risk factors for chronic disease. It originated as a smoking cessation tool but has been adapted for use with obesity.

Results
Literature search
An initial PubMed search using the search terms “obese” AND “prevent” AND “healthcare/health services” AND “adult”, produced 710 articles. The first 40 of these articles were screened and found to be highly irrelevant. Subsequently, the PubMed search was changed to a title search “The Role of Health Services in the Prevention of Overweight and Obesity in Adults”. This produced 240 references, which on initial scan appeared to highlight more relevant documents. CINAHL and Medline searches using the same search terms produced 584 articles which on screening appeared to hold relevant studies. The Cochrane database search resulted in 151 references.

All references were then screened for duplicates before being assessed against the specific inclusion/exclusion criteria. Further references were highlighted through a manual search of the reference list of those references which met the inclusion criteria. In all, 43 articles were included for review. Figure 1 presents the review flow chart.

Scope of literature by category
Of the 43 papers included in the review, seven were primary studies of a specific health based obesity prevention intervention (Category 1) and seven were scooping or systematic reviews of specific health based obesity prevention interventions (Category 2). Four clinical guidelines were included (Category 3); two specific to the Australian context [9, 41], one from the United States [42] and one from the United Kingdom [43]. One guideline, the Royal Australian Council of General Practitioners (RACGP) Red Book [44] focussed on primary healthcare but was included as it does examine implementation of the 5As framework. This framework is frequently utilised in preventive care and though most commonly used in primary care, is one which is applicable to a range of health services. The other three focus on primary healthcare, but also consider other health services. A group of 12 papers (Category 4) provided general descriptions of obesity prevention interventions within health settings. Thirteen papers (Category 5) surveyed health professionals or consumers about their perceptions or knowledge of obesity and/or obesity prevention. A summary of the papers in each category, and the extracted data can be found in Tables 1, 2, 3, 4, 5.

How the 5A framework informs obesity prevention
The specific health based obesity prevention interventions (Category 1 and 2), were examined using the 5As framework [44]. The 5As framework is used to identify risk factors for chronic disease, including obesity, and to plan interventions to take into account the behavioural and physiological elements to be addressed [45]. The 5As refer to Ask (about risk factors); Assess (level of risk factors, health literacy and readiness to change); Advise/Agree (use motivational interviewing to agree goals); Assist (develop a plan to address goals) and Arrange (organise support to achieve goals and maintain change) [44].

Whilst not all the papers explicitly referred to the 5As, elements of the framework were noted in each of the seven primary studies and three of the six literature reviews concerned with health service based prevention interventions. In the section below we apply the 5A framework to consider different elements of obesity prevention and how these have been reported in the literature.

Ask and assess
For this review, Ask and Assess have been considered together as both focus on gathering the initial information which will determine the next step. A focus on screening is supported by evidence which shows that weighing people and discussing the risks associated with putting on excess weight has an impact on individual knowledge and readiness for change which are basic factors if obesity prevention is to be effective [36, 46]. The US Preventive Task Force and the National Heart, Lung, and Blood Institute guidelines recommend health services screen all adults for obesity [42].

Screening should include not only identifying risk factors but also ascertaining if a person is wanting to make changes to address the risk factors and their ability to do so based on factors such as health literacy, which is an individual’s ability to understand, interpret and apply information to their own health and healthcare [47]. In the included studies, there was a focus on determining risk factors but not on establishing an individual’s health literacy. The seven evaluation based papers identified a need to assess for obesity risk factors and the potential impact of these on health but only one [12] specifically concluded that there is a need to train staff in issues such as health literacy and readiness for change. This factor was missing all together from the systematic review summarising best practice in applying the framework [23].

Advise
All the primary study papers (Category 1) concluded that there is a role for health professionals in the provision of
prevention advice and five of these seven studies discussed providing specific training to support this role [12, 13, 15–17]. However, targeted training does not automatically change practice. Two studies, one with community health staff and one with mental health clinicians, found that training changed practice in terms of assessment of risk factors but did not change practice in relation to providing advice [16, 17]. In studies which reported that clinicians did provide advice, in most cases patients could recall that advice but these papers did not report on whether the people receiving the advice changed their behaviour or on the long term retention of that advice [11–13, 15]. One systematic review [23] framed ‘advise’ in terms of telling people they needed to lose weight and how they should do that on the basis that sustained weight loss has the most significant impact on health. It did not consider supporting people to set their own goals around their weight or risk factors. The remaining six literature reviews did not report on health professionals providing advice.

**Assist**

The next step of the 5As framework is providing intervention aimed at assisting people to set goals to self-manage lifestyle changes. The primary studies (category 1) did not address this element, instead framing the role of health services not as providing support but instead referring to other agencies to provide this support. One literature review concluded that intensive long term
support was required to assist people to embed changes but did not provide specific details of what this might look like [23]. Another concluded that assisting people to set goals related to weight management achieves better outcomes than linking goals to more general improvements in health [20]. The remaining literature reviews did not address the ‘assist’ element.

**Arrange**

The final step of the 5As framework recommends providing support to help people achieve and maintain their weight goals. Three of the Category 1 health service evaluations focussed specifically on this step. All were unsuccessful in increasing health professional’s rate of referral to support services. [15–17]. For example, a recent study undertaken across several community health centres focussed on supporting community health staff to incorporate assessment, brief advice and referral in relation to addressing chronic disease risk factors, including obesity risk factors. The intervention was well supported over the 12 months of implementation by a range of initiatives including pre-intervention policy change, electronic resources and staff training. The intervention was successful in getting staff to undertake more assessments for risk factors but did not change practice in relation to brief advice or referral for intervention [17]. Similar results were obtained within a community mental health setting, concluding that even when clinical guidelines explicitly direct clinicians to incorporate preventive care into interactions, rates of care given around issues such as fruit and vegetable intake or physical activity remain low [16]. The study concluded that prevention may need to be delivered within a different model of care [16]. Two of the systematic reviews concluded that successful obesity prevention needs to include the provision of or referral to intensive, multicomponent behavioural interventions which aim to support weight loss and management [21, 23].

**Clinical areas in which obesity prevention may be warranted**

The National Health and Medical Research Council (NHMRC) Clinical Practice Guidelines [6] identify different life stages where there is a greater risk of weight gain. The empirical studies were therefore analysed to identify the clinical areas where prevention may have the most significant impact and the specific elements key to working with these clinical groups. Fifteen of the papers included in the review focused on a particular life stage or cohort of patients. The clinical areas identified were maternity, which has received the most focus but has not been rigorously evaluated [13, 14, 26, 27, 31, 33, 34, 36, 48] and mental health [37]. Definitive evidence of how obesity prevention should be delivered in mental health services was not available. The papers which focussed on maternity based services highlight the immediate consequences of maternal obesity including higher rates of gestational diabetes, high blood pressure and pre-eclampsia and higher risk births. Excess weight gain in pregnancy combined with not losing the weight after pregnancy are predictors of long-term maternal obesity and increases the risk of the child developing obesity whilst mothers with gestational diabetes are more likely to develop type 2 diabetes later in life [36]. Along with the individual risks to mother and child, there is an increased demand for services and a requirement for more specialised services to support woman and baby both during and after the birth [18, 26, 30, 31, 33, 34].

Only one of the papers targeting obesity prevention in maternity care settings reported on a specific intervention. This found that women at risk of gestational diabetes who receive advice in relation to limiting weight gain during pregnancy are less likely to develop diabetes despite no significant difference in weight gain compared with a control group [13]. The other maternity focussed papers were more descriptive, providing a broad overview of implementation factors including the need for a multidisciplinary approach to reinforce the benefits of diet and physical activity beyond weight management. For example, obese pregnant women who are physically active have been shown to experience less depressive symptoms and report higher quality of life to obese women who are not physically active in pregnancy [14]. Two papers stated that discussions about safe weight gain and weight management needs to be done in a way that does not stigmatise or cause feelings of shame [27, 33].

Only one paper looked at a life stage other than child bearing years, namely older adults [29]. This paper summarised the results of a large survey, focussing specifically on older persons’ perceptions of receiving weight management advice. As with similar studies looking at the adult population more generally [28], it was found that older adults were more likely to receive lifestyle advice if they were already obese or had a number of chronic conditions [29]. The disadvantage of many of the survey based studies was the reliance on self-reported weight and height.

In terms of specific clinical areas, studies have been conducted in mental health and community health services. It was reported that it is very difficult to change the practice of mental health staff to include a focus of physical health risk factors [16] with mental health clinicians not necessarily seeing this as their role [37] despite the fact that people with mental illness do want to reduce their risk factors [40]. Similarly in services delivering general community health care, despite the presence of risk factors and an openness by clients to receive preventive advice, community health staff do not deliver opportunistic prevention, particularly in relation to diet [8, 17].
Perceptions and beliefs towards obesity prevention in health services

This review found that along with practical barriers to changing practice including a lack of time, resources or clinical guidelines [34, 38, 39, 49], a key barrier to healthcare based obesity prevention is the perceptions and beliefs of health professionals towards obesity. As well as lacking confidence or knowledge about how to integrate prevention into clinical care, health professionals may simply not see it as their role [37]. There is also an issue with judgements being made in relation to who might benefit from prevention along with a negative view of the effectiveness of prevention, compounded by a view that preventing obesity is a matter of personal responsibility and choice [25, 38].

The 13 studies which specifically looked at this issue are summarised in Category 5 of Tables 1, 2, 3, 4, 5. These papers used a range of methods to ascertain attitudes, including questionnaires or surveys [8, 32, 36, 37, 39, 40, 46, 49, 50] and semi-structured interviews or focus groups [33–35, 38] and were conducted with health professionals [33–35, 37–39, 49, 50] and consumers [8, 32, 36, 40, 46]. Due to the range of methods and small numbers of many of the studies the results are not necessarily generalisable but a recurrence of themes indicates that perceptions and beliefs should be considered when incorporating obesity prevention into health care services.

The view of health professionals, that prevention is not their role, may be reinforced by the fact that they will probably not have had specific training in assessment and advice [16]. They may make judgements on who would benefit from preventive advice and tend to only raise the issue of weight if they know the patient [38]. Whilst health professionals are aware of the health implications of excess weight there may be a perception that they cannot be effective in their role due to a lack of patient motivation to enact change [25]. Other studies have shown that patients may not be told they are overweight or have the health consequences of being overweight discussed [21, 32]. This is despite evidence to suggest that being told firstly they are overweight and secondly the health risks of excess weight can impact on an individual’s readiness to make changes to diet and levels of physical activity [28]. When discussions do occur, they are more likely to be with people who are already obese [24, 28] or who have more frequent health encounters indicating that they have more complex health problems [29]. By clinicians not discussing weight and lifestyle with people before it becomes a significant problem there is a missed opportunity to prevent illness development based on known risk factors.

The uptake of prevention may also be impacted by a view that obesity is an issue of lifestyle choice and personal responsibility and therefore not the responsibility of health services unless linked to the treatment of a specific clinical condition [35, 38]. Clinical guidelines may not be consistently followed because of a lack of knowledge of the guidelines existence or a belief that the guidelines will be ineffective due to pre-conceived ideas about the group of clients being targeted or a lack of confidence in the guidelines [19, 35]. Specific to maternity services, clinicians acknowledge that weight gain in pregnancy is an issue but do not perceive that their patients see it as a problem [30]. In some instances, health professionals don’t feel confident talking to their patients about excess weight [35, 38, 39, 51]. These findings occur even in areas where policy is in place directing clinicians to incorporate prevention, highlighting the need for more comprehensive, multi component change management strategies to enable health professionals to develop their practice to incorporate prevention routinely into interventions [8].

Without further training, baseline knowledge on appropriate interventions to support obesity prevention is generally poor [39] and advice may be given based on the clinicians own experience of weight management [38]. Educating staff about prevention may lead to an increase in assessment of risk but not a significant increase in brief advice or referral to other services for prevention intervention [15, 17]. Both of these later elements are key to impacting on an individual’s chronic disease risk profile [16]. Training of staff may need to extend beyond principles of prevention and also include training on communicating complex information to people with low health literacy. This should include teaching techniques to ensure health professionals clarify their patient has understood information, [12] as this is a significant element in someone being able to adopt and follow preventive care advice [45].

However, the evidence of what education strategies are most effective, particularly in relation to increasing assessment and referral across all risk factors, is limited [52]. A systematic review of interventions to change the behaviour of health professionals found just six randomised control trials and the combined results of these were ambiguous [19]. When specifically looking at factors influencing health professionals decision to provide counselling regarding physical activity, the health professionals own levels of physical activity, whether or not they have specific training, knowing the patient well and the patient having risk factors for chronic disease were all influencing factors [22].

Discussion

This review examined the literature in order to ascertain the role of hospital and community-based health services in adult obesity prevention as well as the potential enablers and barriers to the delivery of preventive health services. Whilst it is acknowledged that the health care system alone is not the answer to reducing the population impact of obesity [53], there is evidence that health services can significantly contribute to obesity prevention commencing
with screening all patients for risk factors and providing brief advice. This should be followed up with referral to a service which provides long term follow-up with a focus on lifestyle change rather than just weight loss and should include consideration of an individual's health literacy [41–44].

However, the reviewed evidence indicates that existing clinical guidelines, including the application of the 5As framework, are not being fully implemented. Where training and resources have focussed on prevention, there is an increase in the rate of screening provided but only a limited change in the rates of brief advice or referral to an intervention service [12, 15–17]. Whilst assessment of risk factors may offer some benefits, greater change is achieved when this is followed up by advice and clear, individualised input to assist people to apply the advice to their own circumstances [54].

In taking a scoping approach to the role of health services, this review was able to draw out that a significant barrier to the implementation of prevention guidelines are the perceptions of health professionals. They may not see prevention as their role [16], make judgements about the causes of and responsibility for an individual's weight, or make subjective decisions about who will benefit from their advice [25, 35, 38]. Health professionals may also not feel sufficiently confident to raise the issue of weight because of the social meanings attached or lack of knowledge [35, 38, 39, 51]. Our review reveals these issues are common to nursing, allied health and medical staff.

Health care is predominantly delivered within a reactive model of care which is at odds with the concept of prevention [55]. Whilst there are obesity prevention guidelines which highlight the need to apply a framework such as the 5As, this fundamentally linear tool is designed to work within a traditional health care approach which focusses on the diagnosis and treatment of acute disease. As has been shown by this review, health professionals' willingness or ability to change practice may be influenced by a range of factors, including their personal perceptions of obesity and of the potential value of prevention. So, whilst at a macro level policy and guidelines may be in place, implementation is hindered at a meso level by the mismatch between the medical model and the multifactorial causes of obesity and at a micro level by the impact of personal beliefs on patient interaction. Each of the factors dynamically influence the others so need should not be considered in isolation [53].

Changing the health system to implement effective action for the prevention of obesity therefore calls for an examination of the issues through a systems lens rather than taking a simple problem-solution driven approach. Health services are a complex system, constituted of a range of people, processes, activities, settings and structures. The interrelationships, boundaries, processes and perspectives connect in dynamic and non-linear ways which may result in emergent self-organised behaviour [56]. Importantly it should be acknowledged that systems are often nested within other systems with their own dynamics at play. Consequently, a search for solutions means identifying multiple causes as well as multiple points for intervention and being aware of unintended consequences [2, 57]. The studies identified by this review focussed on a linear approach to implementing guidelines or examined the perspectives of just one clinical team or group within a system. There is a need for research to be undertaken which, using a systems approach, examines the opportunities and threats to prevention from the perspective of a range of players within the system and considers how these perspectives might be influenced by policy and guidelines, as well as each other. This could include looking at moving beyond traditional structural boundaries to look at alternative models of care to the medical model including the use of support roles outside of those typically considered to be health professionals, particularly in the role of ongoing support [56, 58].

Conclusions

Obesity is often described as a ‘wicked’ problem due to the multifactorial causes requiring complex solutions. Whilst a population health approach is important to address this complexity, it is important that the remit of health services is extended beyond medical treatment to incorporate obesity prevention [59]. Though this scoping review has demonstrated that there is evidence for incorporating obesity prevention into clinical care, research to date has taken a linear approach to the implementation of guidelines without explicitly factoring in the impact of the perceptions of clinicians and managers to the prevention role or addressing the individual responsibility discourse. Further research into the role of health services in obesity prevention should take a systems approach to examine the impacts of changing models of care whilst also taking into account the perceptions of health staff towards obesity and obesity prevention and the breadth of issues impacting on each individual's ability to make lifestyle changes.

Strengths and limitations of the reviews

This review contributes to an understanding of the role of health services in obesity prevention by specifically focusing on services outside of primary health. The use of a scoping review allowed for broad coverage of the literature in order that the main issues could be highlighted in order to inform health policy, clinical practice and future research. The broad aims of the review may impact on attempts to replicate the review. Limiting the review to English language references may have excluded some evidence.
Abbreviations
NHMRC: National Health and Medical Research Council; RACGP: Royal Australian College of General Practitioners; WHO: World Health Organisation

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Authors’ contributions
CP conceived the study, screened citations and full-text articles, analysed and interpreted the data, and wrote and edited the manuscript. LR reviewed the analysis.
AW, SW and LR conceptualised and edited the manuscript. SW developed the results section and edited the initial drafts of the manuscript. CP, LR and AW have read and approved the final manuscript (not applicable for SW).

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Chapter 3: LITERATURE REVIEW
The role of health services in the prevention of obesity

Chapter Overview

This chapter contains two parts. Firstly an overview of the topic, the role of health services in the prevention of obesity, and secondly a scoping review of the literature which asks the question ‘What does the peer reviewed literature reveal about the role of adult health services (excluding general practice) in the provision of obesity prevention and what are the key elements of implementation?’ The scoping review was published in July 2019 (9).

3.1 Introduction

The World Health Organization (WHO) recommends that health promotion should focus on the skills and capabilities of individuals, groups and whole populations as well as the social, environmental and economic determinants of health and sees health settings as playing a key role (29). Specific to obesity, the Select Committee into the Obesity Epidemic in Australia recommended a role for health services in the prevention of obesity as follows: ‘Health practitioners play a significant role in identifying, supporting and treating people who are overweight and obese. However, issues around access, availability, appropriateness and affordability of treatments are impeding the delivery of effective health interventions’ (66). In other words, every health professional has a role in obesity prevention but the design of health systems is not necessarily conducive to a prevention focus (5).
3.1.1 What should health service-based prevention look like for people with obesity?

At a minimum, health service-based obesity prevention should take the form of an assessment for risk factors followed by advice and, when appropriate, referral to prevention services for support in relation to improving diet and physical activity (49). Health services also have a role in delivering general preventive care to the obese population. This could include cancer screening, tobacco cessation advice, psychological care and vaccinations (74, 75). The imperative for some of this general care is stronger in situations where obesity increases a person’s risk of developing a condition. For example, some cancers are linked to excess weight but can be effectively treated if detected early through proactive screening (76).

3.1.2 Is health service obesity prevention occurring?

Studies have shown that in fact obese patients are less likely to receive preventive care such as cancer screening, smoking cessation advice or referral for psychological support. They are also less likely to be booked for a scheduled follow-up (74). In 2003, the United States Preventive Services Task Force recommended that general practitioners should screen all adults for obesity and offer counselling and behavioural interventions with the aim of supporting weight loss (77). However, not only is counselling not routinely happening but as obesity rates have gone up, obesity counselling rates amongst GPs has gone down. For example, whilst 70 to 86% of Australians have low vegetable intake, only approximately 15 to 30% of GP consultations involve discussions on nutrition. 34 to 54% of people do not have adequate levels of physical activity but only about a third of GP encounters involve discussion of physical activity (69).
This decrease has been more marked with patients who are obese or who have weight-related co-morbidities. The reasons for this are not clear but the change has occurred at the same time as weight discrimination has increased on a societal level. Furthermore, whilst individual visits with GPs have become longer, at the same time there has been increased demand on that time due to an increase in complexity of chronic illnesses and greater rates of multi-morbidities. Increasing rates of obesity may also reinforce to GPs that interventions are ineffective, increasing the sense of nihilism towards the potential benefits of intervening.

3.1.3 Where should health services-based obesity prevention be taking place?

Research into health services-based prevention tends to focus on primary healthcare, with a particular focus on general practitioners. Many people who see GPs are overweight or obese or have risk factors for being overweight including poor nutrition and being physically inactive. Often an individual’s first contact with health services is through primary healthcare, more specifically a general practitioner (GP) (69). Discussion of weight and weight loss by a primary care-based doctor has been shown to have a positive impact on an individual’s attempts at weight loss (78-80). These discussions would ideally include an ‘obesity-focused history’ which looks at not only medical history but life events, the individual’s goals, their history of weight gain and loss and psychological health, along with an assessment of readiness for change. There also needs to be recognition that obesity is a chronic disease so relapses, in the form of re-gaining weight following weight loss, are to be expected (81). Despite primary care being seen as the core service for obesity management, it is estimated that less than 1% of general practice consultations focus on obesity (28, 71).
3.1.4 Barriers to Health Services-Based Obesity Prevention

In Australia, the current fee-for-service GP model means individuals may not be willing to pay to see their GP for preventive care. There are other primary care-based roles which may be more easily and appropriately realigned to incorporate a more prevention-based focus, which may make for a more affordable service. Practice nurses are growing as a profession in Australia and already have a well-established public health role through activities such as providing vaccinations and age-based health checks. With changes to Medicare billing, more allied health is available through primary care. However, at present, there are suboptimal levels of preventive care being provided by nursing and allied health staff based in primary healthcare settings (7, 69, 71).

A further barrier is that GPs and the patients themselves are generally not good at recognising that they are overweight or obese. Often GPs place someone in the lower category. In other words, they see someone who is obese as overweight and someone who is overweight as being of normal weight. Patients do the same, which means they may not see that there is an issue to be addressed (82). There may also be a perception that patients are not motivated. This is despite evidence to suggest that simply having the fact that they are overweight identified by their general practitioner may increase the chances of a person taking action to prevent further weight gain or to lose weight (83). However, a range of studies have shown that patients are often not told they are overweight nor do they have the health consequences of being overweight discussed (84, 85). When discussions do occur, they are more likely for people who are already obese or who have more frequent health encounters, indicating that they have more complex health problems (86). Whilst prevention should not be limited to people with no health issues, by clinicians not discussing
weight and lifestyle with people before it becomes a significant problem there is a missed opportunity to prevent illness development based on known risk factors (5, 87-90).

The significant gains made to public health through enhanced increased scientific knowledge have reinforced a medicalised perspective which leads to an emphasis on a medical solution. This acute, primarily reactive model of care does not necessarily work well for the ongoing management of chronic disease or the large-scale incorporation of prevention and does not go far enough when dealing with an issue as complex as obesity (91). Furthermore, there is a disconnect between acute and community services and a lack of engagement between state funded services and federally funded primary health care services. Consequently, organisational, structural and policy change are required to support improved preventive care. Examples include incentivising preventive care, mandating the collection of particular measures in clinical records (e.g. weight, BMI) and supporting private/public/non-government partnerships along the continuum of preventive care (78). This needs to be underpinned by enhancing training of health professionals to ensure that the issue of obesity prevention is one which health professionals are skilled to address, even if their role is just to refer on to other organisations with specialist skills in delivering prevention programmes (24).

3.1.5 Conclusion

The evidence would suggest that obesity prevention could be optimised if each individual has a primary care provider with whom they have a long-term relationship so that trust can be built, allowing the practitioner the opportunity to develop a full understanding of all the personal factors influencing the patient’s health care needs. Risk factors could be identified
early and brief counselling could be provided to support and monitor change (69). However, there are a number of barriers to increasing the role of health services in obesity prevention, particularly in primary healthcare where much of the research has been based (7). In order to develop an enhanced understanding of other opportunities for obesity prevention within the health system, the barriers and enablers of the roles of hospital and community-based health services will be investigated further in the scoping review to follow.

3.2 Scoping Review of the Literature

In order to develop a more in-depth understanding of the role of hospital and community-based health services in the prevention as well as the enablers and barriers, a scoping review of the literature was undertaken. The paper, titled ‘Obesity prevention and the role of hospital and community health services: a scoping review’ was published in July 2019 (9).
Chapter 4: CONCEPTUAL PARADIGM

Using Systems Thinking to Help Make Sense of Complexity

Chapter Overview

This chapter will outline the theory of systems thinking and how this approach is used as the conceptual paradigm for this research. Whilst there is an expectation that the results of this research will be grounded in the data, systems thinking will be utilised as a way to frame the collection and analysis of the data. This chapter references the systems thinking literature specific to the topics of interest, that is, obesity and health services.

4.1 Introduction

There is an expectation that health care services are continuously improving by incorporating evidence into practice (92). This process is traditionally conceptualised in a linear and precise way. This often involves testing an intervention in a controlled environment and assessing whether and how the outcomes are generalisable to other environments, with a focus on measuring simple causal relationships between interventions and outcomes. Whilst this approach has a role in the development of knowledge, what it does overlook is the inherent complexity of the health system. To translate evidence into practice, what also needs to be considered is the interactions within a system which impact on how open the system is to change, how results may manifest outside of a controlled setting, and the attitudes and perceptions of the individuals who make up the system (92-94).
As described in Chapter 3, clinical guidelines exist for health service-based obesity prevention but they are not consistently implemented. This failure to execute guidelines may be due in part to organisational factors such as staff levels, knowledge or support from management but it is important to also consider the broader elements at play within a system. This will include the perspectives held at organisational and individual levels as well as the effect of inter-relationships across the system (9).

Knowledge translation within a health services setting is enhanced by taking a complex systems approach (31). Taking this approach provides an opportunity to examine a system and the actors within it rather than just focusing on a particular problem or testing a specific solution (95). As the aim of this research is to enhance understanding of how the connections within a health service affect the overall response to the prevention of obesity (96) the research will be framed within complex systems thinking, supported by soft systems methodology including the researcher being aware of their position within the system, using data sources which engage a wide range of perspectives, looking for connections and relationships beyond those of a formal organisational structure, and using regular reflection to support the iterative gathering of empirical data (97).

4.2 Overview of Systems Thinking

A system is ‘a set of things... interconnected in such a way that they produce their own pattern of behaviours over time’ (1). Systems thinking is a broad paradigm concerned with inter-relationships, perspectives and boundaries within that system (2). It is way of examining something that helps us better understand how it works in order influence change. Systems thinking focuses on examining the whole as well as the elements that make up the whole and how these interrelate. It is important to note that systems tend to be
nested within other systems so one important aspect of systems research is defining what is included and excluded.

Systems thinking aims to examine a system in terms of what it is, what people think it is, and what people think it could or should be. The goal of systems thinking is also to anticipate and avoid unintended consequences, facilitate continuous learning, incorporate a range of perspectives, and engage multiple stakeholders (2). When trying to understand a system the key considerations are what the component parts are, how these come together and interconnect, what the overall purpose is of the system, and how the system changes over time (98).

Systems thinking incorporates three overlapping concepts:

1. Perspective: a way of seeing the world that focuses on the way the elements interact and relate to each other. If an assumption is made that everyone brings the same perspective, it makes it much more difficult to understand the ways people react or behave within a system. Examining and being cognisant of the differing perspectives at play within a system can help with understanding and in some cases predict unintended consequences. It moves beyond seeing things in terms of processes and simple cause and effect to an awareness that people’s behaviour within a system is strongly influenced by their perspectives rather than an official policy or management directive (2, 98, 99).

2. Inter-relationships: systems thinking aims to make sense of the nature and structure of relationships, the processes between them, patterns and consequences that
emerge from the processes and why this all matters, to whom and in what context
(100) (1, 101).

3. Boundaries: It cannot be assumed that an organisational structure will be the only
boundaries influencing a system. It is important to recognise that not everyone sees
the same boundaries as being important within a system and this can impact on how
the system behaves or responds (2, 101).

The key elements of systems thinking are summarised in Table 1.

<table>
<thead>
<tr>
<th>FEEDBACK</th>
<th>An essential part of a systems approach, particularly in influencing sustained change</th>
</tr>
</thead>
<tbody>
<tr>
<td>DYNAMIC</td>
<td>Systems are constantly changing</td>
</tr>
<tr>
<td>GUIDING PARADIGM</td>
<td>There is an unstated assumption under which a system operates. It influences the system goals, information flow, feedback and everything else about the systems</td>
</tr>
<tr>
<td>MENTAL MODELS</td>
<td>Need to be aware of these, be prepared to challenge them and to engage with other perspectives. Working in systems requires collaboration and engagement with a range of perspectives</td>
</tr>
<tr>
<td>SELF-ORGANISING</td>
<td>A key element of systems. Evolve iteratively through interactions within the system. Goes against the idea of being able to impose linear processes</td>
</tr>
<tr>
<td>COMPLEXITY</td>
<td>There is no one known answer to a problem or to working within a system and no one person or group within the system can hold all the answers or solutions</td>
</tr>
<tr>
<td>EMERGENT/EVOLVING</td>
<td>Behaviour determined by relationships and interactions of component parts. This emergent behaviour can be for the betterment of the system or can lead to maladaptive elements within the system. Emergent behaviours can be viewed as being both positive and negative depending on where the viewer sits within the system</td>
</tr>
</tbody>
</table>

Table 1 Key elements of systems thinking (99, 102, 103)

Whilst a systems approach is about seeing the whole picture, there is a pragmatic need to
set the boundaries of the system being examined whilst also recognising that the system sits
within a bigger system (2). A system is ultimately a human construct, a way of setting
boundaries in order to make sense of what is going on. There is no perfect or exact answer to what lies within the boundaries of a particular system. The goal is not to precisely describe a system but to organise concepts and elements in a way that facilitates enhanced understanding of the system. To try and describe every element of a system would be a potentially endless task. Systems thinking is more about trying to keep the whole in mind while you examine the detail, including being aware of the impact changes at a detailed level might have on the whole (2). Tools and methods can be used as a way to depict or understand a system or to test the impact of intervening at different points. Defining language and vocabulary helps with understanding the dynamics within a system and can be a way of describing elements such as feedback loops, emergent behaviour or unintended consequences to others (98). A comparison of systems thinking versus a more traditional approach is summarised in Table 2.

<table>
<thead>
<tr>
<th>CONVENTIONAL THINKING</th>
<th>SYSTEMS THINKING</th>
</tr>
</thead>
<tbody>
<tr>
<td>How a problem is explored</td>
<td>Isolate parts to understand behaviour</td>
</tr>
<tr>
<td>Goal</td>
<td>Create a solution to solve the problem</td>
</tr>
<tr>
<td>Nature of the problem</td>
<td>Can be defined and isolated, with a clear cause and a solution. Problems can be understood objectively</td>
</tr>
<tr>
<td>Who is responsible for the solution?</td>
<td>External/others</td>
</tr>
<tr>
<td>How solutions are achieved</td>
<td>Multiple short-term successes lead to long-term solutions</td>
</tr>
<tr>
<td>How the problem can be solved</td>
<td>Improve parts to improve whole</td>
</tr>
<tr>
<td>Problem-solving process</td>
<td>Linear process with clear steps, start and finish</td>
</tr>
</tbody>
</table>

*Table 2 Conventional vs Systems Thinking (97)*
4.2.1 Complex Adaptive Systems

Most systems where humans interact can be viewed as complex adaptive systems (CAS). A CAS will typically have permeable, rather than rigid, boundaries and will be composed of individuals with the freedom to act in ways that are not always predictable. Instead, they are self-organising and naturally adapt as members learn through interactions and adjust to changes in the environment following a set of internalised rules which are not necessarily explicit but often expressed as instincts and mental models (104, 105). The self-organisation is not because of hierarchies or organisational structures but is more likely to be based on what gets the work done (106). Within a CAS, there is capacity for change but due to the numerous interactions and linkages the process of deliberate change is not a simple one.

A key to working within a CAS is to understand that the whole is greater than the sum of its parts and is a manifestation of the relationships between the component parts (102, 103). It is also important to remember that component parts of a system can be part of more than one system (105). A prime example in healthcare is that when someone is in the role of patient, it is clear that they are part of the healthcare system. However, they also continue to be part of a range of other systems including their family, workplace and local community and these systems continue to have an influence on how they might behave within other systems (103).

Complex adaptive systems theory highlights that it can be difficult to predict the factors that will most influence each change. Elements in the system may be ignorant of the behaviour of the system as a whole, responding only to the information or physical stimuli available to them locally. The members of a CAS will be influenced by unique and unpredictable
elements relating to their experience and needs and how they react to other components’ responses to circumstances. As people learn, they also evolve and adapt their behaviour, even if the formal rules seemingly have not changed. Even the presence of process-focused performance indicators won’t stop people within a system responding in unpredictable ways (107). Working within a CAS requires a willingness to change processes in response to any iterative change.

4.3 Application of Systems Thinking to Health Services

A fundamental aspect of systems thinking is understanding the purpose of the system in order to better understand why a system is organised in a particular way (100). Whilst randomised controlled trials have a place in health services research, placing such tight boundaries around what can and cannot be included or studied can lead to a reductionist view of the person and an oversimplification of the issues (108). Systems thinking and methodologies are a good way to look at how treatments or processes can be successfully integrated into a dynamic and at times unpredictable system as well as providing insights into the impact of relationships on the change process.

Health services, particularly hospitals, are traditionally designed to function according to linear principles of management, often with a ‘top-down’ approach. This approach assumes unambiguous information from data, that everyone is working towards the same goal and that interactions lead to predicable results. Problems within the system are generally responded to with new processes and new layers of accountability which take time and energy and, in some cases, may contradict previously imposed processes. The top-down monitoring that often accompanies these process changes can impact negatively on
motivation and reduce opportunities for people to respond more intuitively when issues arise (103).

Macro-, Meso- and Micro-level Analysis

In considering healthcare as a system, more specifically, a complex adaptive system, it is necessary to consider both the direct clinical and policy elements which are made up of a complex web of competing groups with differing hierarchies and views on how to best deliver care, as well as the broader social systems that influence health at an individual and population level (109). One way to do this is to consider the different parts at the micro (patient interaction) level, meso (health care organisation and community) level, and macro (policy) level (110). Each of these are interrelated and interdependent, meaning that together they constitute one system. However, each of these parts may have a different purpose, leading to differing views of the system’s future as well as unique mental models, consisting of beliefs and assumptions about how the system works. Traditionally a healthcare organisation is made up of nested macro, meso and micro levels, often with a traditional ‘top-down’ approach to management where decisions are made at the macro level and spread down through the meso and micro levels. It is important to consider the advantages of change being organically identified at the micro level and snowballing up to influence through the meso and macros levels (111). Figure 5 is a representation of the components at each level of a health service.
Feedback Loops

One of the crucial elements of systems thinking is examining the feedback between different parts of the system. Emergent behaviour may have a different impact on different levels of the system depending on what is measured and what is given value. Feedback loops encourage an examination of the system from a range of perspectives which in turn helps identify how different actions affect the system. If feedback is linear it will reinforce the concept of simple cause and effect. For example, just measuring and reporting on occasions of service will show how much work a clinical team is doing but not if that work is more complex, requires more staff or equipment or is taking longer. It also does not communicate the effectiveness of the work being done. A clinician may undertake longer consultations with clients in order to develop rapport and trust if they observe that the outcome of this is that patients are more willing to comply with treatment, reaping benefits for the individual patient at a micro level. However, the effect of this may be that fewer consultations are completed in a day, leading to longer waiting times, a common measure of
outcome at a meso level. If feedback from the micro to the meso level does not highlight the reason for longer consultations, then there can be no feedback loop to the macro level to help shift policy to reflect the need to deliver services in a different way and in fact can lead to a tightening of service requirements, for example, the setting of maximum consultation times (111).

**Perspectives**

An important factor to consider in complex adaptive systems is the attitudes and beliefs of the staff delivering the health service. Research into the poor uptake of preventive interventions in primary health have highlighted reasons for this as including clinicians’ perceptions of the efficacy of prevention-focused interventions and a belief that prevention is not part of the primary healthcare role, as well as beliefs relating to how receptive patients will be to receiving prevention advice (69, 113). It has also been shown that patients with lower health literacy receive less preventive care (71) which may reflect negative practitioner attitudes towards an individual’s ability to take an active role in their own health management. It is important to understand the impact of the perspectives of staff (32) as well as the views of patients, as a lack of support from the consumers of the service will risk the failure of a change in practice, even in the presence of strong evidence (114).

**Inter-relationships**

Applying CAS to a health system means working outside of typical bureaucratic and linear forms of management. The core element of health interactions is the human element. A hierarchical and rule-based culture can inherently work against the benefits of systems
evolving through relationships by stifling decision making and creativity. Nurturing collaboration enhances the benefits of system evolution based on inter-relationships (111). It is important to recognise and acknowledge the elements of complex systems rather than try and resist them. Overlaying a rigid process on a complex system will impact on the way relationships influence how a system evolves, but not necessarily with the net result of improving outcomes.

**Summary**

There is no one size fits all solution to changing practice (30, 31), but this does not mean changing practice should be avoided. Rather, different approaches need to be taken in different settings (32). It may seem frustrating for health professionals, most of whom are trained to diagnose and treat with the aim of solving a problem, to hear that systems thinking is not necessarily about coming up with a solution. Therefore, it may be more useful to talk about the process of working towards a solution, rather than the focus being on the solution-based outcome. This reorientates thinking to the interactions and interdependencies across a system, which supports ongoing adaptations to the huge number of variables at play in obesity (115). By focusing on understanding the function and process of an intervention rather than adherence to specific components, allowance can be made for the specific dynamics and interactions of an organisation and effectiveness may be improved (116).
4.4 The Application of Systems Thinking to Obesity

At its simplest level, obesity may be seen a biological process, a response to the balance between energy consumed and energy used. The number of confounding factors, the feedback loops at play and the non-linear, unpredictable way that the issue has grown as well as the way it does or does not respond to attempts to mitigate the negative impacts all point towards complexity (117). Applying systems thinking provides an opportunity to place the biological markers of obesity within social, cultural, social, economic and environmental systems (115). The CAS characteristics of obesity are summarised in Table 3.

| GLOBAL SCOPE | Diverse characteristics of the many communities affected highlights that it can’t just be a simple problem sitting with the individual |
| HETEROGENEOUS PATTERNS | Developed in different communities and sub-communities with different patterns |
| WIDE RANGING IMPACTS | Time lag between lifestyle changes and developing obesity, between developing obesity and developing health issues, between addressing obesity and health improving, between changing health care delivery and benefits being measurable |
| COMPLEX CAUSES | No single cause of epidemic and relationship between any two factors not consistent or predictable |
| COMPLEX SOLUTIONS | No single solution |

*Table 3 CAS Characteristics of obesity (101)*

Health professionals are often taught to break a problem down into the component parts of biological measures of wellbeing, in order to find a cure. Whilst the process in itself is not wrong, if a broader view of the system is not taken at the same time, it is likely that any solutions emerging from a linear process will have limited application, as there is no such thing as the ‘average’ patient (102). Considering obesity as a complex problem will enable
health services to harness their inherent ability to adapt and move beyond a simple linear approach.

The advantage of utilising systems thinking is that it opens obesity research up to a cross-disciplinary approach which sees the multiple individual factors as interdependent (118). This, in turn, takes the emphasis off individual responsibility and choice, which is important as many aspects of weight management are beyond the individual’s direct control – the body does not lose weight or respond to weight loss in a linear fashion and can be unpredictable. A systems approach to obesity recognises that individuals are shaped by a wider context, a combination of direct and structural actions and ‘amplifiers’ (43, 119).

Due to the wide range of variables, healthcare systems will not always be able to make decisions based on complete and unambiguous data. Complexity science provides a tool to support people’s inherent ability to be creative and adaptable in making sense of a problem even when faced with incomplete data (120). This is particularly relevant to obesity both at a population and an individual level. Whilst we do have population data on prevalence and specific measures can be made of an individual’s physiological situation in relation to their weight, this does not tell the whole story of obesity. A CAS approach to obesity will support ongoing research and evaluation into interventions across the life course and link obesity to other social issues and inequities (43).

4.4.1 Obesity Systems Map

Time pressures and service criteria in health care settings often encourage health professionals to look at just the immediate issues presenting with the individual patient. This overlooks the range of factors which may be influencing that person’s health and their
ability to respond to advice or treatment. Applying a systems approach can help with visualising the broader context.

One of the most commonly referenced applications of systems thinking to obesity is the Foresight Obesity System Map, as shown in Figure 6 (121). The report was written in response to the growing number of people in the United Kingdom with obesity, with the aim of designing a sustainable response over a 40-year period. The starting point was to map the broad range of factors that influence obesity. The resulting map has become an iconic representation of the complexity of obesity.

Figure 6  Foresight Obesity Map (121)
The use of a causal loop diagram cemented the importance of taking a systems approach to obesity by emphasising the large number of interdependencies and feedback loops at play. By emphasising the complex, multifaceted system of determinants, it allowed for the conversation to be moved away from the more usual paradigm of individual responsibility and provided an opportunity to start looking for leverage points at different levels across the system. Most importantly, the map was developed by consulting with a wide array of stakeholders and evidence, reducing the risk that a particular perspective would influence the report’s recommendations (115).

The risk with a diagram like the Foresight Map is that it will result in members of the system feeling overwhelmed by the magnitude of a problem, leading to a sense of helplessness or nihilism. However, it can also help show how, when harnessed in the right way, a systems approach can enhance capacity to tackle complexity. In contrast, for an individual trying to make sense of the multitude of issues within their own system, capacity is far more limited. If those with responsibility for helping move towards a solution keep this in mind, it can help prioritise action in a way that supports rather than overwhelms members of the system (115).

4.5 Incorporating Systems Thinking into Health Service Research

Often health service research starts with a technique or approach being trialled in a controlled setting, with an expectation that once a solution is found it can be rolled out to real-world settings. What this doesn’t allow for is the complexity both of the health system but also of the system that surrounds each individual patient, both of which contribute to a person’s response to treatment (122). The key differences between a medically focused,
linear approach to research and one which is complexity-informed are outlined in Figure 7 (120).

<table>
<thead>
<tr>
<th>Traditional approach</th>
<th>New paradigm (complexity-informed) approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal of research</td>
<td>Exploring tensions; generating insights and wisdom; exposing multiple perspectives; viewing complex systems as moving targets</td>
</tr>
<tr>
<td>Assumed model of causality</td>
<td>Emergent causality: multiple interacting influences account for a particular outcome but none can be said to have a fixed effect size</td>
</tr>
<tr>
<td>Typical format of research question</td>
<td>“What combination of influences has generated this phenomenon? What does the intervention of interest contribute? What happens to the system and its actors if we intervene in a particular way? What are the unintended consequences elsewhere in the system?”</td>
</tr>
<tr>
<td>Mode of representation</td>
<td>Attempt to illustrate the plurality of voices inherent in the research and phenomena under study</td>
</tr>
<tr>
<td>Good research is characterised by</td>
<td>Strong theory, flexible methods, pragmatic adaptation to emerging circumstances, contribution to generative learning and theoretical transferability</td>
</tr>
<tr>
<td>Purpose of theorising</td>
<td>Conjunctive: drawing parts of the problem together to produce a rich, nuanced picture of what is going on and why</td>
</tr>
<tr>
<td>Approach to data</td>
<td>Data will never be complete or perfect; decisions often need to be made in situations of incomplete or contested data</td>
</tr>
<tr>
<td>Analytic focus</td>
<td>Dualities: inter-relationships and dynamic tensions between A, B, C and other emergent aspects</td>
</tr>
</tbody>
</table>

*Figure 7 Traditional vs Complexity-Informed Approach to Research*

Change in a complex system should not be limited to changing a process or introducing technology. Similarly, reducing an individual to a list of symptoms or diagnostic results will simplify the problem to such an extent that solutions are unlikely to address the root cause of the issue (123). Much of the research identified in the obesity prevention literature review focused on the application of clinical guidelines, with limited impact. What the evidence also showed was that how health professionals and individuals perceive obesity, their role in prevention and the notion of responsibility, all impact on the application of guidelines. However, what was not demonstrated was an approach which incorporates these perspectives into the change process. Practitioners in particular are often in the position to observe and understand how the health system works but often have the least amount of influence on how systems develop and new programmes evolve (123). A CAS approach to change works with the natural creativity of health professionals to support
them to adapt to change rather than providing a top-down list of recommendations. It aims to engage individuals at all levels to lead change, establish feedback loops and attend to history – the people delivering the service often have the best understanding of what has and hasn’t worked in the past and why (124). An approach to better understand this topic would be to apply systems thinking to consider the inter-relationships, boundaries and perspectives impacting on a system and to use this knowledge to inform the development of an overall prevention approach.

**Examples**

The use of systems thinking and methodologies in health services research, particularly in the field of obesity prevention, is beginning to gain traction through the use of both soft systems and hard systems methodologies. Soft systems methodologies place a focus on the need for stakeholder engagement in any process of change which will also consider the local context, which is a central factor in the success of any attempts to introduce change (92, 125). It is an iterative approach to learning about an issue and just as importantly, about the context within which the problem is wanting to be addressed. Figure 8 provides examples of the application of soft systems thinking (97).
Hard systems methodologies involve using particular tools or techniques. Central to the complexity of both these approaches is considering a range of views, taking a flexible approach to theory, examining the range of influences and dynamics, and being open to having incomplete data. Systems thinking provides a framework to consider all these variables as well as the dynamics and inter-relationships between those variables (126).
A soft-system approach is often the first step in beginning to understand a system by conceptualising and visualising the system prior to applying a hard systems methodology (127). Examples of hard systems methodologies include:

- participatory dynamic stimulation modelling to incorporate stakeholder participation into the translation of evidence into service-specific policy responses (128);
- the utilisation of causal loop diagrams to support a system-wide policy approach to address the root causes of obesity (129);
- network-based modelling as a systems tool in public health to track changes in weight within populations with the potential emerging to incorporate prevention approaches into social networks (130, 131).

4.6 Conclusion

It is has been established that obesity is a complex problem (37). However, healthcare-based service delivery continues to be dominated by a linear, process focused medical model which prioritises the ‘patient in the guideline’ over the ‘patient in the bed’. In other words, health care services are drawn back to developing clinical guidelines which assume that a disease follows a predictable course rather than acknowledging that at the centre of health care are people who, due to the growing rates of multimorbidity and social inequalities, do not follow a predictable course (120). A linear approach does not consider the importance of considering the boundaries, inter-relationships and perspectives which influence and shape a system’s development. Failing to take this into account when trying to address the negative elements of obesity within health services will continue a frustrating cycle of disappointment. A change of paradigm is needed, one which embraces change from within rather than a top-down approach. It may be that by harnessing the very elements of
complexity, the emergent and unpredictable elements which don’t respond to simple solutions, the system itself may begin to respond to and address the elements of obesity which are currently impairing the role of health services in prevention. A systems approach may be used to gain a better understanding of a system, to facilitate discussion across a system and as a consequence, develop approaches which, while not perfect, make some inroads into the issue needing to be addressed.
Chapter 5: RESEARCH METHODOLOGY AND METHODS

Chapter Overview

This chapter describes the research methodology of applying grounded theory to a case study to better understand a complex system. The research method will be described in order that an understanding can be gained of how the research data were obtained and the initial stages of analysis were progressed. The results obtained from analysis will be discussed in later chapters.

5.1 Introduction

Qualitative research methodology was used to explore and understand obesity prevention within the case study context of ACT health services. The use of grounded theory as a tool of analysis supported an approach which focused on developing conclusions about the perspectives of the participants and how these had been influenced by the case-study setting, rather than to apply pre-existing theory. This research approach enabled the researcher to empirically develop theoretical concepts related to the research question, as described in the results chapters to follow.

5.2 Research Methodology

The aim of this research was to explore ideas and concepts and to provide insights into the topic of interest rather than test a theory or evaluate the effectiveness of a particular approach or technique (21), so a qualitative methodology was used. Qualitative research is utilised in order to interpret or make sense of an issue within a natural setting, often where the researcher is located within that setting [5]. Broadly speaking, a qualitative approach
uses words as the data source, and seeks to generate rich data but not necessarily to reach a definitive consensus or conclusion [4]. Key to qualitative research is the recognition and acceptance that the researcher, as observer of the context being studied, will bring the influence of their own experiences and professional paradigm. This subjectivity does not have to be discounted as bias but can instead be seen as a potential enhancement of the data interpretation. Information ultimately always has a source and qualitative research provides an opportunity to examine that information at the source [4]. A grounded theory approach informed all aspects of the research including participant recruitment, data collection and data analysis. As a mental framework, a systems approach guided the researcher to engage diverse perspectives and examine relationships and interconnections, rather than approaching the issue with a pre-defined theory [6].

5.2.1 Data Source: Case Study

Case study research is a form of empirical inquiry that investigates a phenomenon within its real-life context in order to undertake intensive analysis of an individual or community which factors in human behaviour in relation to that specific environment (109). The researcher is employed within an ACT public health service, as described in Chapter 1. This presented an opportunity to apply a case study method to enable the focus to be on the exploration of meaning whilst retaining a real-world perspective (132). Conducting this research within one health service provided an opportunity to test real-world views and perspectives of the topic experience within that setting.

The main advantage of using a case study approach is that the data was derived from context-dependent knowledge as the participants refer to and draw on things they have
directly observed or done in order to make decisions or complete actions. Rather than trying to prove a theory, case study methodology allows for learning about a topic within a context (132). Whilst for practical reasons, boundaries are drawn around a case study, the broader environment within which it sits becomes the context. Case studies can test views in real-life settings, in direct relation to a phenomenon in practice, resulting in knowledge that may be transferable rather than generalisable (133).

5.2.3 Data Analysis: Grounded Theory

Defining a case study involves choosing the unit and setting its boundaries but does not dictate the way that the data should be analysed. There are a number of approaches that could be used but a case study lends itself to the use of grounded theory as the tool of analysis. Grounded theory is a set of inductive and iterative techniques designed to identify categories and concepts, ‘grounded’ within the data as opposed to bringing a theory into a setting to test. Obesity is known to have multiple causes and consequently it would not be realistic to expect that a definitive solution could be uncovered. These factors led the researcher to conclude that it was not appropriate to use an implicit model but to instead ground the theory within the data (97).

Grounded theory was most clearly defined as a specific data analysis technique by Barney Glaser and Anselm Strauss in the late 1960s as a tool to better understand the meaning and experience of death and dying in hospitals. Glaser and Strauss encouraged the flexible use of grounded theory and since that time, a number of researchers have continued to evolve its application (134). The overall aim of grounded theory is to build theory from data with an
emphasis on the social processes which underpin that data (21). There are a number of variations of grounded theory, but they all have at their core the following key tenet:

- Data collection and analysis happen simultaneously in an iterative process
- The focus is on actions and processes rather than distinct or concrete structure
- The narratives inherent in the data are accessed to develop conceptual categories
- The emphasis is on theory construction rather than application or disproving existing theory
- Theoretical sampling is utilised as a tool (134).

Grounded theory does not produce generalisable results; it cannot be assumed that the processes observed in one setting can be assumed to be the same in another setting (135). A core tenet of grounded theory is the concept of a ‘basic social process’. This is the ongoing action and interaction that occurs in response to situations or problems. The process may only be observable to the observer and not to those embedded in the area of interest. In grounded theory a social process is generally articulated as a gerund, a verb (an action word) acting as a noun (a naming word). Identifying a basic social process can uncover information about factors such as who is in control of a system, how the system may have adapted to an issue or what meaning different members attribute to the process and how this impacts on the topic of interest (22, 134).

Data collection involves undertaking a series of interviews or observations, with analysis occurring as each interview is completed. Through the process of memo writing, the researcher’s analytical insights are recorded. As more data becomes available, the memos are developed into codes. This is followed by continued analysis across the data, with a focus on theoretical sampling to identify categories. By observing the social process
relationships between the categories, concepts are identified which become the foundation of theory. This method is illustrated in Figure 9 (134, 136).

Figure 9 Analytical Process of Grounded Theory

5.3 Research Method

This section will describe the practical steps taken in order to conduct the research. Utilising the CORE-Q checklist (137), Table 4 provides a summary of the study design.

<table>
<thead>
<tr>
<th>Theoretical framework</th>
<th>Methodological orientation and theory</th>
<th>Grounded theory informed all aspects of the research including participant recruitment, data collection and data analysis</th>
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</thead>
<tbody>
<tr>
<td>1. Methodological orientation and theory</td>
<td>Grounded theory informed all aspects of the research including participant recruitment, data collection and data analysis</td>
<td></td>
</tr>
<tr>
<td>Participant selection</td>
<td>2. Sampling</td>
<td>Macro: The researcher used their knowledge of the organisation to identify the first three participants, who were then asked for recommendations for further participants. Meso: The community health executive contacted the clinical team managers of nursing and allied health teams to introduce the research and provided the researcher with potential participants’ contact details. Micro: The managers informed all clinicians within their teams of the research and the opportunity for them to opt in if they were interested in participating. The primary researcher used a combination of emails sent via the team managers and attendance at team meetings to inform potential participants about the research and to obtain consent to book in the time and location for the interviews</td>
</tr>
<tr>
<td>3. Method of approach</td>
<td>Potential participants were contacted via an email which outlined the aim of the research, information on what participation would entail, and information on what to do next if they were willing to participate</td>
<td></td>
</tr>
<tr>
<td>4. Sample size</td>
<td>11 at macro level, 12 at meso level and 23 at micro level. Total= 46 interviews</td>
<td></td>
</tr>
<tr>
<td>5. Non-participation</td>
<td>No individuals contacted declined to participate</td>
<td></td>
</tr>
</tbody>
</table>
Setting

6. Setting of data collection
   Interviews conducted on ACT Health sites, at location agreed with participant. A private room was used for each interview.

7. Presence of non-participants
   No non-participants were present.

8. Description of sample
   Date of interview, length of interview, job title and professional background of participant.

Data collection

9. Interview guide
   A broad set of questions (see Table 4) were developed following a literature review and thematic analysis of expert interviews. As per grounded theory (134), questions evolved as iterative data analysis occurred after each interview.

10. Repeat interviews
    No repeat interviews required.

11. Audio/visual recording
    Each interview was conducted face-to-face by the researcher and recorded. The recordings were transcribed by an external company and each participant was given.

12. Field notes
    Memos were made by the interviewer after each interview.

13. Duration
    The interviews varied in length from 40 to 80 minutes.

14. Data saturation
    The sample size for the case study was determined by a mix of organisational factors specific to ACT Health and saturation sampling.

15. Transcripts returned
    Participants were given the option of reviewing the transcribed interview. Only 3 of the executives took this option, one executive clarified a point, specifically providing a reference for a piece of research they had referred to.

Table 4 Study Design (CORE-Q)

5.3.1 Ethics Approval

Ethics approval was granted from ACT Health (now Canberra Health Services) and the University of Sydney. The project was rated as low risk as based upon the definition provided by the National Statement on Ethical Conduct in Human Research as follows: ‘...

**low risk research describes research in which the only foreseeable risk is one of discomfort.**

**Research in which the risk for participants is more serious than discomfort is not low risk** (138).

The documents submitted to meet the requirements of a low risk ethics application and approval letter for ACT Health (ethlr.15.250) can be found at Appendix 1. The documents
submitted to meet the requirements of a low risk ethics application for the University of Sydney and approval letter (2016/122) can be found at Appendix 2.

5.3.2 Developing the Interview Questions

*Interviews with Obesity Prevention Academic Experts*

A review of the literature confirmed that there is a potential role for health services in the prevention of obesity and highlighted some of the main barriers. This provided the researcher with a starting point in terms of the themes to be included in the case study data collection. In order to test and further develop these themes, interviews were held with five academics with expertise in the field of obesity prevention, two of whom also held a clinical role outside of the case study health service. The experts were chosen based on recommendations from the research supervisor, who contacted the experts via email to ascertain if they would be willing to participate, prior to contact being made by the researcher.

The interviews were conducted by telephone by the researcher. Semi-structured questions, as shown in Table 5, were developed based on the main issues identified through the literature review. Prior to the interviews, the participants were provided with a participant information statement (Appendix 3) and consent was obtained from each participant (Appendix 4). Each interview took between 30 and 55 minutes. The interviews were recorded and transcribed by a transcription service. The participants were provided with the transcripts and given the opportunity to clarify or add any information.
- How important a role do health services generally have to play in the prevention of obesity?
- What kinds of roles can health services play in obesity prevention? (*Explore distinction between what they think IS happening and what they think SHOULD happen*)
- What should be the focus for health service obesity prevention e.g. reorienting current health services; introducing new models of care; big picture system change?
- What are the advantages of incorporating obesity prevention into health services?
- What are the disadvantages of incorporating obesity prevention into health services?
- What are the key populations currently being targeted and/ or that should be being targeted?
- What are the key factors in ensuring prevention is successfully incorporated into non-admitted health services?
- What are the key challenges which will impede the integration of prevention?
- How do you think that social attitudes towards obesity may influence how obesity prevention can be incorporated into health services?
- What are the arguments made for not including obesity prevention in health services (even arguments you do not agree with or would counter)?

Table 5 Interview Guide for Experts

The researcher conducted a thematic analysis of the interview transcripts in order to identify themes and patterns without referencing a specific theoretical framework (21).

Following the interviews, the thematic analysis was discussed with the secondary researchers. The analysis was then used to develop a structure for the question guide to be used for the case study interviews. A descriptive summary of the core points of discussion derived from each interview can be found at Appendix 5. The thematic analysis of the interview data is described below.

*Thematic Analysis of Expert Interviews*

All the experts felt that health services have a role in obesity prevention but generally it is not occurring. Reasons provided for why health services are not implementing obesity prevention policies and programs included prevention not a being priority in relation to acute care, lack of time to include prevention in clinical encounters, a lack of knowledge of...
how to broach the topic, what to do if obesity was identified as an issue, and a lack of staff training in raising the issue of weight.

From the analysis of these interviews several key themes were identified which served to inform the subsequent case study. These were:

- **DATA**: Weight is not routinely measured for individuals, but rather services measure disease and throughput which means resources may be directed to treating the symptoms but not the cause. The experts all agreed that it would be useful to have key performance indicators as health professionals/services need feedback in relation to problems and interventions, but they did not have a common view on what key performance indicators would be.

- **ATTITUDES/STIGMA or NORMALISATION OF DISCUSSING WEIGHT**: Conversations around weight are not normalised and staff commonly don’t know how to bring up the topic. Patients may be too embarrassed to bring up weight if they’ve previously experienced negative comments, but they expect health professionals to build prevention into their interactions.

- **NIHILISM**: Staff feel nothing can be done for individuals or that the system doesn’t support a prevention approach.

- **COMMUNICATION**: This includes poor communication within teams and between services, communication with the staff who are being asked to change their practice, and staff’s ability to communicate with patients about weight and prevention.

- **POLICY AND TRAINING**: Policy is needed to guide services and needs to be underpinned by clinical tools and guidelines. Staff need training in order to effectively and empathetically have conversations around weight.
- **TIME**: This encompassed a few touch points including the time required for prevention to have an impact on a population, time required for individuals to make changes/lose weight, time required for services to change practice, and time available on a day-to-day basis to undertake prevention within clinical services.

### 5.3.3 Interview Questions Used in the ACT Case Study

The semi-structured interview questions to be used in the case study were based on issues identified through the literature review and the thematic analysis of the interviews with academic experts. The questions were not directly involved in developing the final interview questions. The questions were designed to provide broad areas for discussion which would be developed as iterative analysis of the interviews uncovered concepts not highlighted by the literature review or expert interviews, as per grounded theory (134). Table 4 outlines the areas for discussion and question prompts.
- From a population point of view, how does overweight and obesity impact on the ACT population?
- How do the increasing rates of overweight and obesity across the population impact on health services?

- In your own words, how would you define prevention as applied to chronic disease?
- What are the key elements of a prevention system aimed at reducing rates of overweight and obesity?

- Describe the ACT policies which incorporate overweight and obesity prevention?
- How do these policies link to service delivery within ACT Health?

- What do you see as the role of health services in the prevention of overweight and obesity?

- What are the main barriers to health services being able to incorporate prevention into service delivery?
  Potentially prompt with suggestions: time, skill, embarrassment, not knowing what to do with information

- What data does ACT Health gather in relation to overweight and obesity?
- How does ACT Health measure what is being done to prevent an increase in overweight and obesity?

- Are health professionals equipped with the necessary skills to incorporate prevention into care?

- What do you think are the impacts of the social stigma attached to overweight and obesity?
- How does this (the stigma) impact on the capacity of health services to deliver preventive care?
- Do you think patients expect the topic of weight to be raised if it is impacting on their health?
- Do you think clinical staff are comfortable raising the topic of weight or lifestyle risk factors with their patients?

- Are there any final comments you would like to make or points you would like to raise?
- The interview will be transcribed, and I will check for initial errors. Would you like me to send the transcript to you to allow you to check for accuracy?
- Are you happy for me to contact you if I require clarification of any of the topics we have discussed today? Is email the best way to contact you?

Table 6 Interviewing Guide
5.3.4 Interviewer characteristics

All interviews were conducted by the primary researcher, the doctoral candidate. Using the CORE-Q checklist (137), Table 5 summarises the personal characteristics of the interviewer and their relationship with the participants.

<table>
<thead>
<tr>
<th>Personal Characteristics of the Interviewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Interviewer/facilitator</td>
</tr>
<tr>
<td>All interviews conducted by PhD candidate</td>
</tr>
<tr>
<td>2. Credentials</td>
</tr>
<tr>
<td>Bachelor Applied Science (Occupational Therapy); Master of Science (Health Sciences)</td>
</tr>
<tr>
<td>3. Occupation</td>
</tr>
<tr>
<td>occupational therapist and senior project officer</td>
</tr>
<tr>
<td>4. Gender</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>5. Experience and training</td>
</tr>
<tr>
<td>Training in qualitative research methods; experience in conducting individual and group interviews</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relationship with participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Relationship established</td>
</tr>
<tr>
<td>Researcher employed within case study setting. Contact made with participants either directly or via the person’s manager</td>
</tr>
<tr>
<td>7. Participant knowledge of the interviewer</td>
</tr>
<tr>
<td>Provided with information re: interviewers professional background, aim of research and interviewers interest in the topic. All participants aware that interviewer worked in case study setting</td>
</tr>
<tr>
<td>8. Interviewer characteristics</td>
</tr>
<tr>
<td>Participants aware that interviewers had a background as a health professional and understood the dynamics of the case study setting. Interviewer did not inform participants of their personal views in relation to the questions being asked</td>
</tr>
</tbody>
</table>

Table 7 Interviewer characteristics and relationship with participants (CORE-Q)

5.3.5 Participant recruitment

Potential participants were contacted via an email which outlined the aim of the research, information on what participation would entail, and information on what to do next if they were willing to participate (Appendix 6). Attached to the email was a letter of support from the Director General of the organisation (Appendix 7) along with a participant information sheet and consent form (Appendix 8). A follow-up email or telephone call was used to book in a time and location for the interview.

The sample size for the case study was determined by a mix of organisational factors specific to ACT Health and theoretical saturation sampling (21, 134). The main aim of
theoretical sampling in grounded theory is to undertake data collection and continue iterative analysis to refine categories until no new categories emerge (134). The sampling for the case study aimed to include participants who held a range of roles and who represented the macro (executive), meso (clinical management) and micro (clinical) levels of the health system as described below. In the interests of protecting the anonymity of the participants, an organisational chart has not been included here due to the small size of the organisation.

**Macro Level**

Participants for the first group were drawn from staff with executive level responsibility for policy, population health or operational services. The researcher used their knowledge of the organisation to identify the first three participants, who were then asked for recommendations for further participants. The aim was to draw on a sample of staff who had system-wide responsibility, with a mixture of those whose role may directly relate to obesity policy and those who may not have direct responsibility for obesity policy or services.

Eleven face-to-face interviews were conducted from June to August 2016 with ACT Health or Canberra Health Services employees who had a senior executive role. Five had roles with responsibility for developing policy or strategy, commissioning services or clinical governance but no direct operational responsibility for clinical services. Five were Clinical Executive level with direct responsibility for a range of medical, nursing or allied health clinical services. The initial analysis highlighted that these ten interviewees primarily focused on those health services delivered in a hospital setting. As clinical services within ACT also
include community-based services, it was deemed important to include this perspective. Therefore, an eleventh interview was conducted in October 2016 to include a clinical executive who had responsibility for community-based nursing and allied health services.

**Meso Level**

There were a number of services considered for inclusion at the meso level. The academic experts had highlighted that community-based services have a general prevention role but there is often difficulty getting obesity prevention into routine practice, even when specifically resourced. Community health services in the ACT are based around single-discipline professional groups rather than being structured under a medical disease-based model, which can one of the key barriers to health service-based prevention (52). Therefore, community health was selected as the area of clinical focus, beginning at the meso level with the clinical team managers. The community health executive contacted the clinical team managers of nursing and allied health teams to introduce the research and provided the researcher with potential participants’ contact details. At the meso level, participants were staff with a clinical team management responsibility for either single or multidisciplinary teams within a specific clinical area. At this level staff have responsibility for overseeing clinical service delivery as well as for the implementation of policy.

Twelve Clinical Team Managers were interviewed in May and June 2017. Each managed a community team responsible for treating patients in community centres and/or patients’ homes. Six of the interviewees had a nursing background and had management responsibility for teams of registered and enrolled nurses. Five had allied health backgrounds and had direct responsibility for the management of single discipline allied
health teams. A sixth allied health manager had overall responsibility for allied health teams. The allied health services represented were podiatry, physiotherapy, social work, occupational therapy and dietetics.

*Micro Level*

The third group of interviewees consisted of allied health and nursing clinicians sitting within the teams of the managers interviewed. The managers informed all clinicians within their teams of the research and the opportunity for them to opt in if they were interested in participating. The primary researcher used a combination of emails sent via the team managers and attendance at team meetings to inform potential participants about the research and to obtain consent to book in the time and location for the interviews. It should be noted that initially it was proposed that focus groups could be used as a way of generating discussion within groups. However, due to the clinical commitments of the potential participants, it did not prove possible to identify a time and location which would suit a sufficient number of participants to constitute a focus group. Therefore, interviews were conducted on a one-to-one basis.

Twenty-three clinicians working within the community health clinical teams participated in interviews in August and September 2017. Seventeen were from allied health backgrounds including podiatry, social work, occupational therapy, physiotherapy and nutrition. Six were registered nurses. Years of practice ranged from less than one to more than 20 years and they sat within a range of clinical grades including clinicians in education and clinical specialist roles.
In the development stage of this research, consideration was given to including a cohort of service users. However, the use of grounded theory meant that the research approach was refined as the concepts emerged. It was concluded that focusing on the experience of the people delivering health care at different levels of the system was a contained theory that would contribute to the broader literature in this field, including that which focuses on analysis of the patient experience.

5.3.6 Data Analysis

Each interview was conducted face-to-face by the researcher and recorded. The recordings were transcribed by an external company and each participant was given the opportunity to check and comment on the transcript. The interviews varied in length from 40 to 80 minutes.

Each transcribed and de-identified interview was read through to provide an initial review of the data in relation to the research question. Using the ‘comments’ option, notes were made about points of interest and elements that may have needed further exploration in future interviews. Overall memos of the researcher’s initial observations were tabled at the end of the transcribed interviews. After a second read through, a column for initial coding was added to the transcript and an overall memo relating to the interview was written. This was repeated for 3 to 4 interviews before the researcher used theoretical sampling to cross check the initial codes and begin the process of grouping them together as categories, as described above in 5.3.
Following 3-5 interviews, the primary researcher discussed their findings with one of the secondary researchers to reflect on coding and development of categories. Samples of the primary researchers coding and memos were emailed to the secondary researcher so that feedback could be provided on the coding process.

Examples can be found at Figure 10. The names of the participants have been changed.
Memos were written labelling the grouped codes, initially grouped by the three levels of macro, meso and micro. The memos include an explanation of the category, where appropriate a quote demonstrating an example and if required, a question or comment directing the researcher to think further about the grouping of categories or to examine it further in the data. This is shown in Table 5, with direct participant quotes in italics and researcher’s thoughts/questions in blue text.
### MACRO LEVEL: Executive staff with policy or clinical governance role

- **FUTILITY OF INDIVIDUALISING CARE:** the people in population health roles put much more focus on addressing obesity through population health initiatives and had a more cynical view of individual services. ‘I think that once people are obese, basically there’s nothing they can do to fix that. If they’re a little bit overweight, yeah, you’ve got a moment in time and maybe that will work’ – Population Health role

- **POPULATION APPROACH:** a population health approach would seem to be a systems approach. But what if each person is seen as a system? Also, despite taking a population view, this seemed to be quite solution focused which does not fit with a systems approach.

- **CHOICE: INFLUENCING/ENABLING/DIRECTING/SHAPING:** e.g. not selling cigarettes to minors. Two (slightly contradictory) themes emerged. Firstly, need to change influencing factors to help people make better choices. But also came through a sense that people don’t make the right choices – maybe also links to futility?

  – ‘At the end of the day, who has the responsibility? The individual does. …..I think the role of health services in preventing obesity is to point out the things that can go wrong’ – Professional Governance role (CONTEXT: talking about health role in addressing obesity.) Sense they believe they should keep giving public health messages, but people may not listen anyway and that is their fault/issue – rather than that there needs to be a different approach to how the messages are given.

- **RESOURCING:** cost often comes up as a factor. Population health people say need to consider costs and fund most cost-effective programmes which they would argue are those ones which target biggest group, but individual clinicians say that need to help individuals. Medical model focuses on maintaining that model even if not most cost effective. Can the excuse of not having money continue to be accepted if not preventing obesity means that health care costs become unsustainable?

- **OBESITY AS A DISEASE (? MEDICALISING):** A few different views – calling it a disease could increase stigma as implies a need to cure and so could be seen as blaming the individual. Alternatively, it could help a person to have an ‘excuse’ to change their lifestyle (Doctor’s orders) and could attract health funding. There wasn’t consensus but the arguments tended to be framed within a medical model discourse. Would it make it easier or harder to work outside of the medical model if obesity is called a disease? Or would it even matter? How would I answer this question? Or is it worth looking at arguments in literature and highlighting that it is an issue that needs to be considered?

- **SYSTEMS DRIVERS (of health service response to obesity):** cost versus service criteria versus framing of problem (population versus individual)

- **ASSUMPTIONS:** a range of assumptions made about who does what e.g. that dietitians do lots of weighing and weight loss. Not sure if this is such a strong theme as the assumptions were quite varied and not necessarily connected

- **CHOICE-ENABLING/INFLUENCING/COERCING:** range of ideas including health promotion being about telling people what to do to improve health, that there is a certain level of personal responsibility or self-infliction related to obesity. It is up to the patient to identify weight as an issue. If a person who is obese has ‘chosen’ not to address it before this point, not much point health trying to address (?futility). *Need to go back and re-examine this.*

### MESO LEVEL: Clinical Team Managers

- **NORMALISING/ADAPTING:** Is society just adapting to overweight and obesity? Certainly, community health has adapted by changing equipment, doing double handed visits and seeing people for longer due to obesity. But it is still a taboo subject to raise with someone. Some CMs suggested that they are just adapting

- **ACUITY OF COMMUNITY CASELOADS:** Unintended consequence of pushing caseload into community from hospital – less time for prevention. Criteria driven services means don’t focus on preventing future issues or issues not directly related to the presenting issue – very problem focused

  – ‘But a lot of services seem to be being taken out of the hospital and put into the community. For example, the dialysis patients – that used to be a clinician within the hospital. Then we were given funding to take on those patients. So that’s just added to our clinical load and it leaves less time than do that prevention, to do that health promotion’ – Allied Health Manager

- **ASSUMPTIONS:** A range of assumptions made about who does what e.g. that dietitians do lots of weighing and weight loss. Not sure if this is such a strong theme as the assumptions were quite varied and not necessarily connected

- **CHOICE-ENABLING/INFLUENCING/COERCING:** range of ideas including health promotion being about telling people what to do to improve health, that there is a certain level of personal responsibility or self-infliction related to obesity. It is up to the patient to identify weight as an issue. If a person who is obese has ‘chosen’ not to address it before this point, not much point health trying to address (?futility). *Need to go back and re-examine this.*
RESOURCING: people with obesity may need extra time or equipment. Priority for services is treating clinical need so prevention not a priority when limited resources. Focus seemed to be on idea that resources need to go to clinical care – which is made more resource heavy when people are o/o – rather than resources shouldn’t go to prevention. More that not enough resources for treatment and it should be prioritised.

‘It's had an enormous impact, particularly very heavy bariatric patients. The impact of that has been, not only on the patients themselves in terms of rates of healing, complications, these patients often have significant co-morbidities and it can be quite difficult at times to treat them. Coupled with that, we've had workplace injuries associated with trying to manage that from a manual handling perspective’ – Nurse Manager

HAVING THE CONVERSATION: Is it enough to just give advice or is there a need to also assess readiness for change plus person’s own goals?
Rapport, tone important – may lead to a complaint if person misconstrues intent for raising weight
Created discomfort in people by asking if they would talk to staff about their weight – though most said they would talk about mental health (this issue had been identified by the executive, mentioned by some clinical managers, not all)
Raising the issue of weight could be shaming but ignoring it, particularly not acknowledging or addressing some of the practical barriers, could be more shaming.

OBESITY AS A DISEASE: again, varied views. It is not a disease but becomes one once the person has developed other related conditions; if a disease might give ‘permission’ to intervene; if not a disease, no imperative for health to ask about it, not being disease adds to issue of weight being a taboo subject; may medicalise it too much

HEALTH OF STAFF: raised by many of the managers
DATA/KPIs: don’t measure number of people with obesity, the extra care they need etc.

MICRO LEVEL: Clinicians (allied health and nursing)

COMPLEXITY OF CLIENTS IN COMMUNITY: Podiatry only deal with complex/high need clients; dietitians and nursing noted that are now seeing more clinically complex people; physio and OT have quite specific criteria, SW open criteria. Is increased/high complexity something that needs to be addressed through policy?

PREVENTION–TREATMENT CONTINUUM: focus of clinical services is treatment due to service criteria – but seem to be doing opportunistic prevention? If prevention is just part of everyone’s job, is it difficult to prioritise and measure? Some staff do incorporate advice and others don’t – what is best practice, what should they be doing? Is this where clinical guidelines are needed? Community have such a widely varied demography, it would be difficult to develop a clinical guideline to suit all.

SERVICE CRITERIA: aimed at people who already have significant health problems so prevention is harder. Does this make it even more important to be clear on aim of prevention? Hard to prioritise prevention when people have such complex health issues requiring treatment. Criteria tends to focus on specific treatment goals.

DATA/KPIs: don’t specifically report on this

SPECIALIST vs GENERALIST ROLE: If prevention is part of everyone’s role, it doesn’t get prioritised. However, if it becomes a specialist role, others lose their skills. Links with MDT vs INDIVIDUAL PROFESSIONS based care

POLICY: disconnect between policy and implementation. And between population health information and clinical services – knowing issues could help with service planning plus staff education. Who drives service priorities? Are community priorities driven by what is coming out of hospitals – which won’t focus on prevention – rather than from public health area. ‘...a lot of the stuff that you see in terms of the broader, high level stuff that comes from government, it just seems disconnected from the day to day experience of somebody with obesity’ – Allied Health

BUILDING RAPPORT: Would do this before raising issue of weight or would only address weight if person raised it as an issue. Is it relevant that clinicians prioritised this but not necessarily a theme from executive? Is it a different driver in the system?

What does that suggest? Does this link to HAVING THE CONVERSATION – are different ideas coming out around this? Is having the conversation dependent on age/experience/personality/own weight? Only have self-report information... If so, how do you get a consistency of service? Or is this the same for other issues as well? If someone not referred because of their weight, not so easy to introduce it as a topic. Highlighted again and again that need to have rapport with patient – but this isn’t necessarily emphasised in proposed solutions such as 5As

CHOICE: maybe not coming through as strongly as a theme from clinicians. Something in here about the idea of readiness to change. If try and get people to address weight before they are ready, might cause them to disengage. ‘Some people will just [say], “It’s too hard. There’s too many other things going on.” Respecting that, but also saying, “Just so you know,” so they can make that informed decision, so that they know where to go to, to come back later on when they are ready’ – Allied Health
**OBESITY AS A DISEASE:** people not referred for obesity but have obesity. Link with mental health issues. People engage with community health for chronic disease but not necessarily for obesity. Labelling obesity a disease might add to stigma. ‘So often if they had mental health issues or if they’ve got problems surrounding eating and monitoring their weight. They’ve got both more medical conditions that kind of feed off each other’ – Allied Health

**STIGMA:** obesity links to shame/self-esteem/sense of failure for the individual. Clinicians seemed very mindful of this when thinking about how to address with a patient.

**HELPLESSNESS:** clinicians can see the issues obesity can cause, feel they should do something but not sure what, no policy guidance, people have to want to change, it is very hard for people to change.

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**Table 8 Categories by group**

The categories identified though analysis across all three participant groups were further analysed by continued reading of the interviews which allowed for continued comparison of ideas which then developed into a comparison of codes with codes (22). As codes were refined, theoretical sampling was undertaken across the interviews to integrate the data. This involved the researcher exploring the data for information to define the boundaries of the emerging categories as well as establishing the relevance of the categories in the overall development of theory (134). This process continued until saturation was reached which occurred when the data revealed no new codes and no further insights about the merging grounded theory (22, 134). This resulted in a number of categories, shown in Figure 11.

<table>
<thead>
<tr>
<th>Data, feedback</th>
<th>Policy</th>
<th>Role of health in prevention</th>
<th>Assumptions</th>
<th>Obesity as a disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing complexity of patients</td>
<td>Service criteria</td>
<td>Treatment vs Prevention</td>
<td>Opportunistic prevention</td>
<td>Choice and responsibility</td>
</tr>
<tr>
<td>Population vs individual need</td>
<td>Political will</td>
<td>Effectiveness of prevention</td>
<td></td>
<td>Stigma and shame</td>
</tr>
</tbody>
</table>

*Figure 11 Main categories obtained through data analysis using grounded theory*
Through the process of focused coding, these categories were examined for connections so that concepts could be developed to address the research aim of examining how boundaries, relationships and perspectives may enable or hinder the ability of secondary health services to incorporate adult obesity prevention into practice. These concepts formed the basis of the grounded theory. The process of building these concepts into theory will be the focus of the results chapters (Chapters 6, 7 and 8).

5.4 Conclusion

The aim of this research is to examine how relationships between the interrelated parts of the system, including interactions and perspectives (97) may enable or hinder the ability of secondary health services to incorporate adult obesity prevention into practice. Framing the research within systems thinking supported this aim by providing an opportunity for comparison within and across groups representing different levels of the ACT health system. The use of grounded theory ensured that the data spoke for itself, rather than being used to test a pre-existing theory. The development of codes into categories through the process of memo writing and theoretical sampling moved the data analysis beyond a descriptive account to an empirical observation of the social processes influencing the behaviour and development of the system (134), to be discussed in the chapters to follow.
Chapter 6: RESULTS
The role of health services in preventing adult obesity: unpacking the ACT health system

Chapter Overview

The aim of this chapter is to present an overview of the results obtained from the interviews conducted with three groups of ACT health services employees. A summary of the main categories identified for each of the three groups interviewed is followed by a comparison of the key differences between the groups and a description of the way in which obesity and prevention is framed across the system. The main barriers to obesity prevention, as determined through the data analysis, are outlined by referencing back to the 5As framework (see Chapter 3) to link the results to the tool most commonly recommended for clinical services working with someone with obesity or obesity risk factors. The chapter concludes by introducing the two theoretical concepts grounded in the data, the normalising of obesity and the discoursing of obesity, which will be discussed further in chapters to follow.

6.1 Introduction

Following an initial analysis of the data and the identification of data categories, continued analysis and theoretical sampling was undertaken to determine connections between these categories and to analyse the significance of any similarities and differences across different levels of the system. To commence the process of identifying linkages and overlaps between the categories, the researcher developed a visual representation of the linkages between the categories as shown in Figure 12. This process supported the development of categories into concepts (134, 136).
Figure 12 Connections between Data Categories

The categories in the green boxes relate to the perspectives apparent within the data. These link to the concept of obesity as a disease which impacts on both how the role of health services in the prevention of obesity is perceived and occurs, which is also influenced by the boundaries set by the health service and how these boundaries are interpreted. The final group of categories link with all groupings and are concerned with how obesity-related changes are impacting on health services due to the boundaries and inter-relationships which exist across the system. The connections between the categories and the process of identifying the emergent concepts will be explored in more depth in the sections to follow.
6.2 Results from ACT interviews at Macro, Meso and Micro Levels

This section provides a description of the significant connections between data categories at each level of the system, discerned through data analysis and comparison across the interviews. Focused coding, which involved comparing data with data (134), highlighted the key categories which presented for each group.

6.2.1 Clinical Executive and Policy (Macro)

Summary

The executive staff generally used a population health narrative, talking about obesity in general terms including the overall impact on the population, the link between obesity and chronic disease, and what a population health response should look like. The overall observation from the executives was that while health services can have a role in providing information or education and do take a lead in the treatment of obesity or associated chronic disease, prevention should be led by primary care whilst the actual responsibility for taking action sits with the individual.

In discussing the impact of obesity on health services, the executive focused on the idea that being obese significantly increases the risk of an individual developing chronic disease, which has a direct impact on health service resources. This impact on resources results from the increase in demand for services as well as the extra physical requirements of caring for individual obese patients, including the need for specialised equipment. Productivity cost was also flagged as a resource pressure by those executives who linked the weight of health staff to their ability to perform their role. The opportunity to incorporate prevention into
clinical care was seen as being impeded by funding systems rather than funding availability, with a lack of financial incentives meaning staff are not motivated to change practices.

**Key Categories**

**The Concept of Obesity as a Disease and its Impact on Stigma**

Though this group articulated that obesity has a negative impact on health, there was not a consensus regarding whether or not obesity is a disease. The key argument raised by those who were of the opinion that obesity should not be classified as a disease was that more responsibility and cost would be directly passed onto health services. It was also perceived that labelling obesity as a disease would over-medicalise it which may reduce opportunities to fund non-medical interventions. Others, however, were of the view that obesity is a medical condition and as such should be classified as a disease.

A further argument made for not classifying obesity as a disease was that it might increase stigmatisation by implying the individual needed to be ‘cured’. An alternative view was that a label of disease would remove the idea of individual responsibility which would help reduce stigma and might help direct increased funding to health services. This was in contrast to the view that the concept of individual responsibility needed to be retained so that people could be directed to make lifestyle changes. The dichotomous views expressed by the executives reflected much of the debate within the available literature on this topic (139).
The Concept of Choice and the Impact of Political Will on the Prevention System

The idea of obesity reflecting personal ‘choice’ came through strongly in these interviews, with a focus on obesity being the result of the lifestyle choices of individuals. Where there was a difference of opinion was whether that choice was driven by internal factors, the idea that obesity is primarily determined by ‘will power’, or external factors negatively influencing choice, for example the advertising of or easy availability of energy-dense food.

Choice was also linked to obesity prevention with respondents outlining the need for a population approach which is designed to direct people to the ‘right’ choices, particularly in relation to food. This group were generally supportive of policies such as the ACT Government Healthy Food and Drink policy (19) which they see as being designed to steer staff to better food choices. However, they expressed concern that any attempts by government to influence choice through policy can be criticised as leading to a ‘nanny state’, a phrase which implies the government is giving too much advice, or making laws about, how people should live their lives (140). The executive group seemed to be particularly cognisant of the part that political will plays in major public health reform, that politicians may be reluctant to push for legislative changes related to prevention if the political cost is too high. This group reported that real change in rates of obesity could never be achieved unless there was political will to invest in long-term and large-scale prevention such as occurred with the impact on smoking rates through tobacco control. They were aware that this type of initiative, whilst successful, is still open to being criticised for impinging on individual freedoms as a result of ‘the government’ interfering in people’s lives.

Consequently, whilst they were in favour of economic policies such as taxing certain foods or
beverages or restricting the marketing of energy-dense, easily accessible food they were not optimistic that political support was imminent.

The Effectiveness of Obesity Prevention

A significant finding from the senior executives was their overall sense of futility towards the potential effectiveness of obesity prevention within the health sector, with it being defined as being generally ineffective as well as just being too late by the time people present to health services. Even when explicitly asked about secondary prevention, the dominant idea was that prevention is best done at a population level and should focus on primary prevention. The executive viewed the health services role as taking a medicalised treatment approach with a strong view that health services are not equipped to ‘do’ obesity prevention with adults. The exception was the community executive who articulated that prevention could be linked to the presenting health problem. For example, if someone was getting a wound dressed, providing information on how lifestyle changes could help with the healing is a way to provide education and may open up a conversation about whether the person sees their weight as an issue.

6.2.2 Clinical Team Managers (Meso)

**Summary**

The managers framed their responses in terms of the caseload their service was responsible for rather than a population-wide narrative, highlighting that their immediate priority as clinical team managers was to provide treatment for discrete groups of patients. They focused on the practical issues of caring for people with obesity within their services,
including the requirement for specialist equipment, the physical demands placed on staff and the extra challenges presented when care is being delivered in the home environment.

The pervading view from the clinical managers was that obesity is definitely an issue for community-based services but there is not capacity to undertake obesity prevention as the clinicians are too busy providing treatment for their patients’ immediate health needs. With an ever-increasing demand for health services, particularly as the community caseload takes on more clinically complex issues, treatment rather than prevention has to be the focus. The managers articulated that generally by the time people require community health services, many already have weight-related complications, the treatment of which they acknowledged requires a focused, multidisciplinary approach. However, all the community services are single discipline and other than a limited dietetics service, none of the community teams specifically targets obesity.

Key Categories

Increasing Complexity of Community Patients and the Impact on Prevention

The managers were able to discuss what they saw as the overall causes and impact of obesity but were not able to articulate what the role of their service might be in relation to obesity prevention. Many of the managers reported a perceived increase in the number of people with obesity within caseloads and articulated how health services are adapting to this through the way new buildings are designed to accommodate the bariatric equipment which is becoming more standard. They also reported that community teams had experienced an overall increase in the acuity and clinical complexity of patients which has resulted in community teams having limited capacity for prevention. Services have adapted
to changing caseloads by providing extra equipment, longer treatment sessions or having extra staff attend when treating people who do have obesity. These adaptations to an increased number of patients with obesity have not extended to an increase in the provision of obesity prevention.

**Data and the Absence of a Feedback Loop**

The shift in need related to obesity including factors such as providing more bariatric equipment or needing extra staff to conduct treatment, is not currently captured through the ACT health service data collection. Patients are not routinely weighed or asked their weight. If weight is recorded, the only way of tracking weight change is by manually reviewing each individual patient’s clinical notes. The data does not delineate the reasons for why a visit or clinical appointment may take longer, meaning it cannot be identified if obesity is the main factor. Consequently, despite the managers anecdotally reporting that obesity has increased demand on the time and resources of community services, there is currently no local data available to prove this. The managers acknowledged that as they cannot quantify these changes, there is no feedback loop to those responsible for developing policy or determining resourcing and as a result, they have not received any increase in resources or policy guidance to meet this change in service demand.

**Limiting Service Criteria and Assumptions about Available Care**

“I think everyone’s feeling very pressured in a day, that they’re trying to get in and out and so they’re sticking to the absolute referral needs rather than unpacking further what’s going on”

*Clinical Team Manager 4*
Whilst the managers were able to articulate the overall causes of obesity and describe the practical issues of treating someone who is obese, this didn’t translate to them being able to articulate what the role of their service is, or could be, to proactively address obesity. The clinical teams accept patients on the basis of service criteria and treat people on the basis of reason for referral. None of the community services other than dietetics specifically addresses obesity as part of their service criteria. With no system-based incentive for obesity to be addressed the managers did not see it as part of their team’s role, particularly when demand for services is already high. It is worth noting that community health does routinely assess risk for a number of preventable factors such as falls, pressure injuries and infections. If risk is identified, there is a clinical response available within ACT Health, for example prescribing equipment to reduce pressure injury risk or referring an individual to the Falls Prevention Service. However, this approach is not available for obesity.

‘While we may undertake health education, we’re not really in the health promotion space and that’s a cost-effective decision for the health dollar. We’re busy enough doing the work that we’re doing’

Clinical Team Manager 2

Within this group, there were a number of assumptions made regarding what the role of other services might be for people with obesity. For example, it was assumed that ACT Health dietitians routinely weigh people and that a lot of the focus of their work is on weight loss treatment. In fact, they don’t routinely weigh people; less than 25% of their referrals are for weight management and these referrals are given a low priority. There was
also an assumption that general practice will take responsibility to address an individual’s weight.

The Concept of Choice and its Place in Policy

Whilst there was not a sense of judgement about overweight individuals there was an overall sense that it is really up to the individual to choose a lifestyle that avoids obesity. There was a divided view regarding the ACT Government Healthy Food and Drink Policy. Some felt it was overreach to dictate what food staff could be provided with at work, that as adults they should be able to make their own choices. The alternative view was that the policy supports people to be responsible for their own health. Not all managers enforced the policy in their own teams.

6.2.3 Clinicians (Micro)

Summary

Across both the allied health and nursing groups, the clinicians tended to use an ‘individual care’ narrative by illustrating their answers with de-identified stories relating to particular patients. The clinicians used this approach to highlight why health services should be taking more responsibility for obesity prevention. They expressed empathy towards overweight people and some articulated how they try to incorporate opportunistic prevention into treatment despite an absence of clear policy direction. This lack of guidance was found to result in a sense of helplessness as they want to help their patients, but they don’t really know how.
Building Rapport and the Impact of Complexity on Choice

Choice also came up as a concept amongst the clinicians, who articulated that health services have a role in trying to enable and influence choices around lifestyle factors but ultimately people can choose whether they want to address their weight. Health services should respect a person’s choices and work within the limits set by the individual. Clinicians placed a lot of focus on building rapport with people and the need to introduce the concept of lifestyle change and weight in a timely way, taking into consideration all the other issues the person may be facing. Most clinicians stated they would not raise weight as an issue until they had rapport with the person, unless the patient specifically identified it as one of their goals, in order to avoid embarrassing or upsetting the person. They observed that even if an individual perceived their weight as an issue, other confounding life factors may prevent them from being able to take action to change their lifestyle. The clinicians put a lot of focus on the need to take into consideration all the other issues the person may be facing. Clinical staff also put a lot of emphasis on the connections between mental health and obesity, noting the challenges created by the fact that mental health and physical health services are managed and run separately by ACT health services. They expressed a clear understanding of and concern for the range of challenges faced by people who are both overweight and experiencing mental health issues, but often do not have access to support to address someone’s mental health issues.

The Influence of Service Criteria and Stigma on Prevention

As with the clinical team managers, the clinicians highlighted the structure of community services as a barrier to incorporating obesity prevention into clinical services. Each service
has its own criteria and generally they work as single disciplines with very little multidisciplinary work. Without having obesity as a referral criterion, the clinicians perceive that it makes it more difficult for them to raise obesity as a topic with their patients. The clinicians discussed the social meaning attached to obesity and the sense of shame people can feel in connection to their weight. This led to the idea that if a patient isn’t referred for their weight, but the clinician raises it as an issue, there may be a risk that the patient will disengage from the service, missing out on treatment for the presenting issue.

‘Either they just don’t engage at all, or it scares them off because they’re not ready for that yet’  
Allied Health Clinician 8

The clinicians highlighted that there are limited options available within the system for those patients who do want to address their weight.

Opportunistic Prevention and the Role of Policy

The clinicians articulated that they had a duty of care to their patients to address health issues identified in the referral or by the patient. However, with the demand on services and a lack of guidance, it was not clear to them what they should be doing in terms of prevention. Some clinicians reported doing opportunistic prevention by giving general advice around lifestyle factors or linking a person’s weight to the trajectory of their health issues.

‘...I would say probably the majority of our team if not the whole team is quite focused on prevention in terms of trying to stop things certainly from a personal level I spend a reasonable amount of time trying to initiate prevention or at least healthy lifestyle change usually in terms of education depending on what it is...’  
Allied Health Clinician 10
Staff had mixed feedback about the Healthy Food and Drinks Policy. Some felt it was beyond an employer’s remit to dictate what staff could and couldn’t consume at work while others felt that it sent the ‘right’ message. A small number observed that the policy supported their own attempts to manage their weight by removing temptation.

‘...a lot of the stuff that you see in terms of the broader, high level stuff that comes from government, it just seems disconnected from the day to day experience of somebody with obesity’

Allied Health Clinician 8

Summary

The executive staff, who have the responsibility for driving change, are aware of the growing pressure on inpatient services, some of which is created by the demands of managing people who are obese. However, what the executive are not aware of are the significant day-to-day issues being faced by community-based clinical teams in trying to manage patients with more complex needs being discharged earlier from inpatient services. There is no feedback loop to communicate this information. Nor is the data being collected in order to create a feedback loop regarding the extra resources needed to manage obesity in the community. The weight of patients is not known, the amount of bariatric equipment prescribed is not routinely recorded and the need for longer consultations or for extra members of staff to manage someone with obesity is not explicitly captured in data.

What is apparent is that in the ACT, each community-based profession is taking a different approach to the way that obesity is managed in response to a lack of clinical guidelines
balanced against a need to follow service criteria. There may be some opportunistic prevention occurring, but this is limited by a lack of time and knowledge and not having anywhere appropriate to refer those patients who do want to address their weight. The management of patients who are obese is more time consuming, requires access to different equipment and often means taking a different treatment approach. Whilst the executive staff were very clearly able to articulate that a response to obesity requires a cross-sector approach, it is apparent that as people are moved through the health system on the basis of service criteria, their weight is not addressed as no-one has obesity treatment or prevention explicitly as part of their service criteria. So, while it is recognised that obesity is an issue across all disease groups making it everyone’s problem, the limits put on by service criteria mean it is no-one’s responsibility.

6.3 Framing of Obesity and Prevention: A Comparison of Perspectives

A key to systems thinking is examining perspectives to develop an understanding of how they differ across the system (2). The comparisons of the three groups interviewed highlights that perceptions are different depending on where someone sits within an organisation, that a person’s role will influence how they frame obesity and obesity prevention. This then has an impact on their beliefs and attitudes towards what can or cannot be done to incorporate obesity prevention into healthcare. At each level within the ACT system, there were differing beliefs and assumptions about how the system works as well as differing views of what is needed to make improvements. Across the interviews, there were three main ways that these perspectives were articulated, ‘normative’, ‘descriptive’ and ‘prescriptive’ (see Figure 13 for definitions).
A **NORMATIVE** claim asserts that something OUGHT to be the case. It is one that proffers subjective opinion or a value judgement rather than just making an assertion of fact.

A **DESCRIPTIVE** claim is an assertion that something IS the case. It focuses on describing what is happening, rather than what should be happening.

A **PRESCRIPTIVE** statement suggests a course of action, often based on a judgement of doing what is considered right.

**Figure 13 Definitions of Perspectives**

Some interviewees were more assertive in their responses, using normative claims to affirm that what they were reporting should be the case. This included an element of value judgement in statements, relating either to individual behaviour or what was seen to be best for the population as a whole. This communication style was more typical amongst the executive staff. Descriptive statements focused more on describing what was currently happening rather than what should be happening. These statements were often accompanied by descriptions of the practical reasons for actions occurring, with an absence of analysis or judgement regarding alternatives that could lead to improvement. This style of claim was most frequently articulated by the team managers. The third style of response was prescriptive statements which suggested a course of action, reflecting a proactive problem-solving approach to the issues being raised. These statements were often based on a perception of what was the right or good thing to do. Many of the clinicians articulated their responses in this way.

Executive staff articulated a systems approach, advocating for population health initiatives. However, the reality of working with individuals on a one-to-one basis in a healthcare setting means clinical staff are seeing first hand that many people accessing health services have not been reached by population health prevention initiatives and
clinicians articulated a clearer understanding of the multiple physical, social and psychological issues at play for an individual which reinforce obesity. This suggests that at an individual level people cannot be effectively helped by population focused education but does not resolve the question of what individualised obesity prevention might look like in the current system. This contributes to a sense of helplessness amongst clinicians, which is an issue that has been identified in previous research (141, 142).

6.4 Key Differences between Groups

The three groups interviewed have different roles, but function within an interrelated and interdependent system. As a framework for the first stage of analysis, the three groups are demarcated as being at the micro, or patient interaction level, the meso, which can be the organisation or community being served level and macro, or policy level (112). To further develop an understanding of the ACT health system’s approach to obesity and prevention, analysis focused on the differences across these three groups.

Table 6 summarises the key differences observed within the macro, meso and micro levels of ACT Health when each group was asked to consider the role of the health service in the prevention of adult obesity. The differences have been delineated by the researcher according to the categories identified through constant comparative analysis (22).

Discussion of the differences between the researcher and the secondary researchers supported the next stage of grounded theory, the development of categories into social processes as discussed in section 6.6.
<table>
<thead>
<tr>
<th>Purpose</th>
<th>Executive: Macro</th>
<th>Clinical Managers: Meso</th>
<th>Clinicians: Micro</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>Population health with solution focus</td>
<td>Specific clinical groups with process focus</td>
<td>Individual needs – solution focus on individual systems</td>
</tr>
<tr>
<td><strong>Inter-relationships</strong></td>
<td><strong>Key Source of Feedback</strong></td>
<td>Population health data</td>
<td>Observations of time and resources required to manage individual patient</td>
</tr>
<tr>
<td><strong>Assumptions</strong></td>
<td>Primary care will address obesity</td>
<td>Dietitians will weigh people and lead on weight loss to address obesity</td>
<td>Need to have rapport with person before can raise weight</td>
</tr>
<tr>
<td><strong>Having the Conversation</strong></td>
<td>Communication about obesity needs to be at a population level</td>
<td>Obesity is a taboo topic and can only be discussed if the individual patient wants to discuss</td>
<td>Need to have rapport and would only discuss weight with a patient as linked to presenting health issue</td>
</tr>
<tr>
<td><strong>Perspectives</strong></td>
<td><strong>Concern (in relation to obesity)</strong></td>
<td>Physical demands (extra staff/extra equipment/ increased level of service) of caring for people with obesity in hospital and implications for resources</td>
<td>Managing practical issues relating to caring for people with obesity e.g. equipment, double handed visits</td>
</tr>
<tr>
<td><strong>Role of Health in Prevention</strong></td>
<td>Individual prevention is futile, need population approach</td>
<td>Health theoretically has a prevention role BUT too busy providing treatment</td>
<td>Try to do opportunistic prevention with patients – feel they have duty of care</td>
</tr>
<tr>
<td><strong>Weighing Patients</strong></td>
<td>Clinicians should weigh patients</td>
<td>Have ensured bariatric weighing equipment is available but do not consider impact of weight in planning of services</td>
<td>Do not routinely weigh patients and many feel shouldn’t weigh patients</td>
</tr>
<tr>
<td><strong>Boundaries</strong></td>
<td><strong>What Limits Prevention</strong></td>
<td>Political will to make large scale and legislative changes</td>
<td>Complexity of patients</td>
</tr>
<tr>
<td></td>
<td><strong>Policy</strong></td>
<td>Responsible for policy – in ACT it focuses on population level and health staff</td>
<td>Aware of policy but it does not impact on the service criteria/clinical focus</td>
</tr>
<tr>
<td></td>
<td><strong>Clinical Focus</strong></td>
<td>Moving healthcare from hospital to community/ reducing hospital demand</td>
<td>Providing services that can manage complex needs</td>
</tr>
</tbody>
</table>

*Table 9 Differences between groups*
The executive staff sit at a macro policy level. The main driver of their actions is the whole needs of the system but the lens through which they view this will be determined by factors such as other demands on resources and the political climate. At a clinical executive level, this can translate to a focus on wait times or overall numbers of units of care delivered, with less focus on clinical outcomes at an individual patient level. Policy staff at an executive level have a responsibility for the population health of the ACT, with limited focus on the individual interventions being offered at a clinical level. The clinical managers are at the health service or meso level and are responsible for a particular sub-population within the overall system. Their role is to focus on the accumulated needs of the group balanced against the service resources, which can extend to behaviours such as tightening service criteria to manage overall demand. Clinicians have to work within the confines of these criteria but will also place boundaries around their practice based on how they interpret their professional scope.

The members of each group interviewed for this research may assume they understand the role of the other parts but are likely to have come to this understanding by observing events through a particular lens or perspective (2). It is clear that there are some core differences across the three levels. Executive staff who have responsibility for setting policy or driving care across several layers of the system unsurprisingly tended to have a ‘big picture’ purpose, with a focus on trying to enable change across the whole population. This is in line with a systems approach to obesity which places an emphasis on the wider determinants of health including psychosocial, environmental and economic. However, population-based policy does not necessarily provide clear direction for clinical services working with small cross sections of a population.
The clinical managers’ purpose focused on process, specifically the throughput of those patients covered by the service’s inclusion criteria, whilst clinicians focused on the individuals presenting to the service. As service demand increases, capacity decreases and the clinicians describe having to focus on addressing the reason for referral which, in a system dominated by the medical model, is either a specific disease-related issue or related to a process outcome such as prescribing equipment. This does not nurture an approach which promotes a focus on the broader health needs of the patient within their individual system. This engendered in the clinicians a sense of helplessness – they could recognise the issues related to a person’s obesity but were not supported by the system to address the problem if it was not specifically identified in the service criteria.

Whilst executive staff articulated that addressing obesity by targeting individuals is not a good use of resources, there was a view that clinicians should weigh patients. The reasons for this varied, with some identifying that weight is often needed as a clinical indicator, for example for ensuring correct medication dosage, while others saw it as an opportunity for accurate population-based data. Executives looked to weight and body mass index as a measure of effective individual obesity prevention and were not advocating for a focus on other areas such as functional gains, lifestyle improvements or improved mental health (62).

Both clinical managers and clinicians did not consider weighing all patients a priority even though it was acknowledged that it is a clinical measurement that may be needed for prescribing equipment or confirming medication dosage. In recent years, all community health centres have had bariatric scales installed so lack of equipment is not a barrier to weighing someone in a clinical setting. However, getting an accurate weight is not possible if
the person is being treated in their home and there was a general view that asking someone their weight, even with a clear reason such as prescribing equipment, could cause embarrassment or shame. This view was also articulated across all groups when asked about raising weight as an issue with a colleague, with a consensus that the social stigma around weight continues to be a barrier to raising it as a topic, even if it may be impacting on someone’s work performance. The issue of raising weight with colleagues was identified in early interviews so was added as to the question guide.

‘So we do have that conversation. Do we talk about it in the sense of weight? (PAUSE) I suspect not very often’.

Allied Health Manager 6

6.5 Barriers to Obesity Prevention in Relation to the 5As Framework

As described in Chapter 2, the 5As framework (as shown in Figure 14) is used by clinical health services to identify risk factors for chronic disease, including obesity, and to plan interventions (71). The framework has not been widely implemented for obesity due to practical factors such as time and funding (7). An analysis of the case study results framed within the 5As model provides an opportunity to consider factors outside of these practical issues in order to develop a better understanding of why health services are not incorporating obesity prevention into practice in accordance with clinical guidelines.

Figure 14 5As framework
ASK: A key concept that arose for clinicians interviewed was initiating the conversation, with not all feeling able to raise the issue of weight with a patient. The clinicians and team managers saw the approach taken to having a conversation as an important element to factor into the role of health services in obesity prevention. There was a common perspective across these two groups that in order to raise the issue of weight, there needs to be rapport with the individual, and staff should respect the person’s wishes in terms of whether they want to discuss it or not. It was acknowledged that talking about a person’s weight is a difficult conversation to have, even for those professions who routinely ask about intimate topics such as substance abuse or trauma. This was not identified as an issue by the executive staff. Whilst they were not in a position to use the tool, they are responsible for setting the policy and so need to be aware of this potential barrier to how staff might factor obesity prevention into their practice.

ASSESS: Assessment of obesity places an emphasis on objective measures including weight, BMI and waist circumference. The clinicians interviewed reported that they do not routinely weigh their patients and both clinical managers and clinicians did not consider weighing patients a priority. At an executive level, the idea of first building rapport did not feature in the interviews but there was a view that patients should routinely be weighed, which does not fit with a person-centred approach or the first step of asking permission. A more person-centred approach to assessment would focus more on discussing the person’s health priorities and lived experience of the issues relating to their weight. None of the groups explicitly raised the idea of assessing health literacy as part of standard care or as an element of prevention.
ADVISE: The 5As recommends providing standard advice relating to diet and physical activity as well as ideal weight loss targets (49). In contrast, a systems perspective emphasises that with a complex problem, there will not be a defined or standard solution and that for each intervention outcomes will be different. The executive took the former approach, that is, that standard advice could be given. However, there was a caveat attached to this as with an ever-increasing number of people moving into the overweight or obese category, health services are not in a position to give everyone advice and certainly not to personalise for each individual. The clinicians were aware that they should give advice but either didn’t feel they had the knowledge or skills or felt the advice they could give within the limits of their role was too general.

AGREE: The implied outcome of agree is that once the person has been given all the information, they will agree how to apply the process to themselves. This links to the key concept of choice and individual responsibility. The view from the executives was that whilst health services have a role in providing information or education, ultimately obesity is an individual responsibility and people should make better choices. This was in contrast to the clinicians who put a lot of focus on building rapport with people and introducing the concept of lifestyle change linked to weight in a timely way, taking into consideration all the other issues the person may be facing. The overriding sense expressed by both the executive and the clinical team managers was one of futility, with a commonly held opinion being that once someone is obese, it is too late to address their weight. Clinicians expressed an overall sense of helplessness in terms of implementing effective obesity prevention due to a lack of resources, which links closely with the final step, arrange.
ARRANGE: The RACGP guide is clear on what this step requires: ‘People with obesity should have long-term contact with, and support from, healthcare professionals. Multidisciplinary care from appropriate services or an allied health professional, such as a dietitian and exercise physiologist, is recommended, especially in complex cases and for patients with morbid obesity’ (49). This service does exist within the ACT system in the form of the Obesity Management Service. However, this service is only available for the cohort of patients who meet the criteria. For all others an intense, multidisciplinary service does not exist. Within community health services, teams are arranged around single disciplines, each with different service criteria. Clinical staff articulated that if they identified a problem relating to weight and the person wanted to address it, that they would refer on. However, beyond sending the person to a dietitian, most were not sure what this referral would be.

Summary

Whilst the 5As is based on the principles of behaviour change it is primarily used as a linear and sequential model, which is not a format well suited to addressing a complex issue such as obesity (143). This is most apparent at the first step when an assumption is made that clinicians will be comfortable to talk to their patients about weight. It was highlighted in this research that weight is perceived as a taboo subject and staff are wary of raising it as an issue without first developing rapport. A tool such as the 5As also creates narrow boundaries in terms of what might be suitable measures of success. By emphasising weight as an outcome measure and focusing on standard advice giving, the tool limits clinical reasoning by encouraging clinicians down a particular path regardless of what the problems and priorities for the individual patient may be. The clinicians in this system were most aware of these factors but those who may have responsibility for directing the use of a
clinical tool, the team managers and executive, were not. Without a feedback loop between these parts of the system, there is limited opportunity to shift practice to better align the needs of the patient with the clinical approach.

6.6 Categories Grounded in the Data

Analysis of the data revealed that as obesity rates have increased, adaptations have occurred which are not necessarily reflected in the data or driven by policy. These adaptations help services to manage the treatment of people who are obese but do not extend to encompassing prevention into service delivery. People are not excluded from community services for being obese, but without obesity being an overt reason for referral, there is no incentive or framework to support staff to directly address obesity or the associated risk factors. Furthermore, people sitting within different parts of the health system see the complexity of obesity from different perspectives and these perspectives also influence the health system’s response to obesity. Further analysis of the two categories identified basic social processes – the normalising of obesity and the discoursing of obesity. The grouping of the categories is summarised in Table 7. The processes are briefly described below and will be discussed further in chapters 7 and 8.
6.6.1 The Normalising of Obesity

It became apparent across the interviews that as obesity rates have increased, a normalising process has occurred with services routinely providing bariatric equipment or modifying the treatment approach to accommodate someone’s weight. Whilst this adaptation has in some part been an attempt to mitigate the impact of a larger proportion of patients being obese, the resulting changes have not contributed to a shift either towards a preventive focus or away from a disease focused medical model. With the absence of a feedback loop across the system, different adaptations were being made. At a policy level, this manifested as a focus on the population level at the expense of individual care and the clinical level, and the tightening of service criteria occurred in the absence of agreed policy. This concept will be discussed further in Chapter 7.
6.6.2 Discoursing of Obesity

The obesity discourse was observed to be influenced by a number of factors including personal experience, people’s observations of the impact of obesity on health services, professional philosophy and an internal narrative around how an individual may experience or respond to being obese. It was observed that the discourse around obesity within and across the different levels of the system influenced and shaped the way that this health service is responding to the impact of obesity at a service level as well at an individual care level. This discourse at times saw participants take a dichotomous position, particularly in terms of whether obesity is a disease and if it is a result of individual responsibility. This was observed to be an attempt by participants to limit the complexity of obesity with an emphasis on a biomedical approach focusing on linear cause and effect. This was often accompanied by a sense of futility or helplessness when discoursing the effectiveness of obesity prevention. Participants’ perspectives were seen to influence their views on how to broach the topic of obesity at an individual and a system level, how to have the conversation. They showed awareness of the shame and stigma that is inextricably linked to the societal response to obesity. This concept will be discussed further in Chapter 8.

6.7 Conclusion

This study provided an opportunity to use a systems approach to study in more depth how perspectives within a health service influence the implementation of evidence in relation to obesity prevention. The systems approach also allowed for an analysis of factors relating to the way boundaries occur due to the structure of the system and how these boundaries are then enhanced or inhibited by the inter-relationships across and within the system.
Staff involved directly or indirectly in clinical care bring their own perspectives to their daily interactions and decision-making processes, viewing obesity and prevention through a lens influenced by their personal and professional experiences. Those staff with a policy and population health focus articulated a need to a focus on population wide prevention but in considering obesity as a disease, tended to ‘drift’ back to lifestyle approaches (89). Within clinical services, there was a high level of awareness of the individual complexity of obesity but due to the dominance of the medical model which focuses on curing illness for the individual, priority is given to disease treatment rather than lifestyle-focused prevention.

It is not uncommon for people to behave based on their perspectives rather than an official policy or management directive (2). What is important is recognising and understanding the different perspectives and being aware of where the blockages to communication may be within an organisation. This systems view provides an insight into why health services are struggling with the role they play in obesity. In the following chapters, further analysis of concepts will be used to more closely examine the issues facing ACT health services to develop substantive theory regarding the role of health services in the prevention of obesity.
Chapter 7: RESULTS

The Normalisation of Obesity: Everybody’s Problem, Nobody’s Responsibility

Chapter Overview

This chapter provides further analysis of the interview data, as per the grounded theory technique described in Chapter 5. Analysis focused on the social process of normalising, and how it links to the barriers to obesity prevention facing the ACT health system. The concepts addressed in this chapter and the chapter to follow will be used as the basis of the discussion chapter which, with reference to contextual literature, aims to draw the two key concepts together to provide substantive theory linked to the research questions.

7.1 Introduction

The normalising of obesity has impacted on the way that health services frame both obesity and prevention. As a result, the role of health services is directed by restrictive service criteria and an emphasis on treatment. Obesity is seen as a potential hindrance to ‘normal’ care rather than a chronic condition. As more people present with more complex care needs, there is a growing sense of futility about the potential for prevention. With the absence of a feedback loop across the system, health services are not receiving policy guidance as to how to act. Instead, they focus on treating the health consequences of obesity but frame obesity prevention as a matter of individual responsibility, meaning individuals can be either directed or enabled to make better choices in order to reduce their weight. It was clear from the interviews that across the health system obesity is seen as a
problem, but the adaptations that have occurred do not address the problems and result in no one within the system having responsibility. Figure 15 illustrates these concepts.

![Figure 15 The Normalising of Obesity](Image)

7.2 Results: the impact of obesity in the ACT health system

Analysis of the data showed that as obesity rates have increased, a normalising process has occurred with examples including services routinely providing bariatric equipment or modifying treatment approaches to accommodate someone’s weight. As the population’s health needs have become more complex, hospital services are adapting by discharging more complex patients back into the community, meaning those people being treated by community health-based services have also become increasingly complex. To cope with this change in clinical presentations, community services are tightening their service criteria in a way which prioritises treatment over prevention, further reinforcing a disease focus. At the same time, anecdotally, community-based clinical services are noticing an increase in the number of patients being referred who have obesity. Both of these population-level evolutions have seen community-based health services adapt through actions such as taking longer to perform treatment sessions or, in some cases, having two staff attend to undertake routine care.
These changes are not an explicitly agreed policy directive but rather an unintended consequence of shifting complexity between settings and the increasing number of patients with obesity. As neither the tightening of service criteria nor the increased clinical needs of people with obesity are captured in the current data parameters there is no feedback loop to those setting policy. Consequently, policy makers are not fully aware of how clinical services are struggling with the impact of obesity nor the degree to which this has reduced the capacity for health promotion, a role previously seen as standard practice for community-based services. Paradoxically, the normalisation of obesity has resulted in less capacity for the prevention of obesity.

Underpinning this normalisation process were a number of assumptions. At an executive level, there was an assumption that primary care would provide obesity prevention and that by the time someone presents to secondary health services, it is too late for prevention. The clinical team managers assumed that if a patient doesn’t raise the issue of their weight then they are actively choosing not to address it. Clinicians were more aware of the barriers that may face an individual in being able to address their weight but worked under an assumption that they needed to focus on treatment which should be based on the reason for referral, limiting the possibility for prevention. These assumptions stem from the medical model which emphasises a treatment focused, linear approach to health care delivery.
7.2.1 Adjusting to the increasing complexity of community patients: the limitations of service criteria

There was consensus across the three groups that the increasing number of people presenting to services who have obesity makes delivering care more time consuming and often requires the treatment approach to be modified. The participants reported anecdotally that health services have adapted to some degree by providing more bariatric equipment in clinic and inpatient settings. However, the clinicians noted it continues to be difficult to provide bariatric equipment into the home environment, that obese patients’ needs are not necessarily met by ‘normal’ treatment approaches, and that prevention is not included in usual care. Further adaptations include double handed visits, and people requiring longer episodes of care. The adaptations all place increased pressure on resources but do not address the root cause of the problem.

None of the services provided by ACT health services community care teams have obesity management as a reason for referral, with the exception of dietetics which has a limited, low priority service. Subsequently, there is not an imperative to explicitly address obesity or to deliver obesity prevention even though it was reported that a high proportion of community patients have obesity and clinicians and team managers felt that weight often compounded the presenting problems. Examples may include the impact on wound healing being addressed by nursing services, foot pain presenting to podiatry services, knee or back problems...
pain presenting to physiotherapy or access within the home environment presenting to occupational therapy. People are not excluded for being obese, but as obesity will not be the categorical reason for referral, there is no incentive or framework to support staff to directly address obesity or the associated risk factors.

‘...you do need to have the tools on how to help someone make a behavioural change if that’s what they want to do. Rather than going, “Here’s a pamphlet. Eat more greens. Make sure you get your protein” and walk away. It’s something that needs a more holistic look at what are the barriers for them getting healthy food’ Clinician Nurse 1

Despite this, clinical staff reported that they may mention nutrition and physical activity if they feel it is relevant to the presenting condition. However, as they only have the time and knowledge to provide generic information, they were aware that this may not be enough to help someone as it does not consider individual barriers to change. They see the main barrier to delivering individualised prevention as being a combination of not having time for more in-depth interventions and needing to stay within the limits of service criteria, which is further limited by a lack of clear policy direction regarding how to support people for whom weight may be an issue.

Clinical staff also recognised that addressing obesity requires a longer-term multidisciplinary approach to care. The community services are set up as single discipline teams which manage their own throughput of patients, which means opportunities for interdisciplinary work are severely limited beyond one service referring to another. Clinicians expressed a desire to be able to collaborate with their colleagues, recognising that even when the presenting problem was within their scope of practice, to support patients to implement
lifestyle changes requires a range of approaches and skill sets not found in just one profession.

“It would be fantastic to get true multi-disciplinary care because doing referral to someone is not multi-disciplinary care........ Not only the looking at it purely from a health perspective taking all the other socio and cultural factors out” 
Clinician AH14

The executive staff were not aware that the increasing complexity of patients being seen in the community was impacting on the service’s capacity to deliver obesity prevention. They could articulate the demands on hospital-based services and the need to shift some of this demand but did not relate this to community-based services moving to having a more reactive, sub-acute focus. It may be that they did not see this as an issue as they do not see a role for individual prevention in the secondary health services space. The executive did promote weighing all patients as a way of gathering more accurate population data or in order to obtain clinical data for other reasons such as dispensing medication. Both clinical managers and clinicians did not consider weighing all patients a priority even though it was acknowledged that it is a clinical measurement that may be needed for prescribing equipment or confirming medication dosage.

7.2.2. Defining prevention in the health services context: what does it look like and who should do it

Prevention can be defined in a range of ways, from ensuring the complete absence of a disease or condition, through slowing the development of a disease, to limiting the harm
caused once a disease is present (33, 50). At an executive level, there was a view that successful obesity prevention occurs at a population health level with a focus on primary prevention, that is, stopping people becoming overweight. There were a number of assumptions made by this group in relation to secondary and tertiary prevention. These included that general practitioners would address overweight or obesity, that people who are obese probably do not want to do anything about their weight, and that health staff do not like caring for people who are obese. Whilst the executive seemed to have a good understanding of the complexity of obesity as well as of the different levels of prevention, they view the role of health services as being primarily to treat illness, not prevention. There was no suggestion that the health service either needed to or could change its focus or that prevention could be incorporated into treatment.

“The people on the extreme are the ones that we’re struggling with. Those people just don’t care. They don’t care about the image, they don’t care about the health, they’ve given up on that side” Executive 6

The team managers also drew a distinction between prevention and treatment, relating it to the point in time when people with obesity are seen by services. That is, people at risk of obesity do not tend to access community services until their obesity has caused health issues. At this point, the demands on the service require that the focus remain on treating the presenting illness rather than addressing any underlying cause, and by the time someone is having health-related obesity issues, it is too late to do anything in terms of obesity prevention.
Prevention and treatment were framed by the team managers as separate concepts. This group also made the assumption that general practitioners would address weight and that the main resource for people who are overweight is community health dietitians, even though in practice only a small proportion of the ACT community care dietitians’ clinical time is available to specifically address weight management. The team managers seemed very aware of the adaptations that services made to manage people with obesity, including seeing people for longer, involving two staff in treatments and having more expensive bariatric equipment readily available. These actions were framed in terms of adapting services to enable the treatment of patients, rather than being seen as a way of preventing the progression of a condition linked to obesity. It is not possible to quantify these adaptations or to link them to obesity as neither the individual’s weight nor the reason for actions such as having two members of staff attend treatment is recorded in the service’s datasets.

For some patients who are obese, it means that they have to actually come into our clinic. For some patients it means we have to get special equipment into the homes for us to provide that care. For some patients, we have to have two nurses go into the home to deliver that care, which impacts on our ability to provide care to other people”. Clinical Manager 6 (Nursing)

The clinicians viewed prevention as being part of everyone’s job, particularly in relation to those areas which have defined clinical pathways such as prevention of falls injuries, pressure injuries and infection control. Whilst none of the teams have a defined obesity

“I think that often we’re coming in sort of halfway through a person’s health journey. We’re at the tail end. They’ve usually seen health professionals in some other sphere, either through presentation to hospital, or more commonly through their GP and I think the GP and the GP practices have a big role in that counselling and that ongoing support. These are the people that they are seeing on a day to day, you know, a week to week basis”. Clinical Manager 2 (Nursing)
prevention role and issues related to obesity are not delineated as a reason for referral, many of the patients seen are obese so some clinicians are doing opportunistic prevention. The clinicians described talking to the person about how their weight impacts on the presenting condition, followed by asking about risk factors or offering a referral to a service which may have capacity to address someone’s weight. This was more likely to occur when the patient raised their weight as an issue.

Each of the groups identified specific factors limiting the delivery of prevention within health services but had differing perspectives as to what the main factor was. For the executive, the key to prevention is implementing effective population-wide strategies, requiring political will which is impeded by concerns such as ‘nanny-statism’ and the lobbying of groups with vested interests.

Political will was not a core concept across the team manager and clinician groups. The team managers saw the main limiting factor to obesity prevention within the health system as being capacity; health services are just too busy providing treatment to focus on prevention. The managers were aware of the causes of obesity, but this didn’t translate to
them being able to articulate what role health services could play in prevention. Clinicians also highlighted capacity but described being limited by service criteria which directs them to focus care on treating reasons for referral rather than prevention.

7.2.3 The absence of a data feedback loop: the impact on policy vs practice

There are no obesity prevention policies which specifically direct community-based clinical staff working in the ACT health services. Weight and body mass index are not routinely recorded, meaning base information like how many community clients are overweight or obese is not available. Changes to service delivery because of someone’s weight, for example needing two staff to deliver care, are not captured in data. With no formal measurements of the change to patient demographics or the response to this change, the feedback loop between the macro, meso and micro levels is absent. Without a feedback loop, policy cannot be developed to address the problems being confronted by clinicians who are seeing patients with a range of complex issues related to obesity. This has resulted in each professional group and individual clinicians within these groups taking different approaches. Some work strictly within the boundaries of the service criteria whilst others try to provide opportunistic prevention. However, the success of this is limited by time and knowledge as well as having very few options to refer people on to for longer-term intervention and support.

There are national clinical guidelines (51) which direct health services on how to incorporate obesity prevention into clinical interactions. However, these guidelines were not referred to by any of the ACT staff interviewed. Instead, when asked about obesity policy, they referred to the policy which outlines the use of equipment when physically caring for a larger person
or the ‘Healthy Food and Drink Choices’ policy. This policy, which was first issued in 2013 and reviewed with minor amendments in 2018 (19), aims to direct services on how to provide and promote healthy food and drink choices to staff, visitors and patients at health facilities or events. There was a mixed response to this policy. Some respondents felt that it was important to support staff to make healthy food choices and to provide access to physical activity. Implementing the policy was seen as setting a good example for staff as well as removing temptation for those staff who are trying to address their own weight.

‘I’m glad that they’ve put the healthy foods policy… some people thought it was a bit of a killjoy, but that it’s great to have big feast of cakes and things with their morning teas and I just felt that we should be walking the talk really. I think those things are really positive as far as supporting staff to make better choices, if you have the food there, then you’re obliged to eat somebody’s fatty cake to be part of that culture……’ Team Manager 1

Others had an opposing view which was that staff were adults who should be able to make their own choices and be allowed to have access to ‘treat’ food at the infrequent staff gatherings.

‘…because that [the policy] has had a lot of pushback with staff with feeling why should other people have the right to kind of have that influence over our eating choices or is that a choice that we should be making as individuals….. they describe it as being policed at work and things. …..once a month we’d all share food and that’s certainly – the types of foods being shared have not changed!……. even though we’re seeing the impact of obesity in the community, I’m surprised at how much hit back there’s been within staff that they haven’t been very supportive of that.’ Team Manager 4
The policy does not appear to be implemented consistently and with no evaluation of the implementation at the service delivery level, there is no way for the developers of the policy to measure success or satisfaction. It also became apparent that having a policy directed at staff but no policy to support clinical care was an issue for clinical staff.

Summary

As the complexity of patients presenting to ACT health services has increased, service criteria boundaries have tightened in such a way as to prioritise treating explicit problems to the exclusion of health promotion. However, how these changes in practice relate to rates of obesity is not currently captured in the data.

7.3 Discussion

Despite the management of obesity-related problems having become a normalised component of clinical care within the ACT health system and clinicians consistently acknowledging that obesity can and should be prevented, the focus of community-based care remains on providing treatment. This is due in part to a lack of feedback loops within the system. For example, community-based staff report needing to undertake more treatment sessions with two staff because of obese individuals but this is not formally recorded, and consequently the executive staff at a macro level are unaware of the change. Clinical teams report attempts at opportunistic prevention but this again is not recorded, meaning there is no feedback loop to those with responsibility for setting the direction for health services.
It is also apparent that as the complexity of patient needs has increased there has been a decision at the meso level to tighten service criteria. The criteria set limits on what problems clinicians can address. This process-driven approach does not easily accommodate prevention as it does not take into account the wide range of factors which impact the person with obesity including family, socio-economic status and access to healthier food options (144, 145). As demonstrated by the ACT case study, it is difficult for health services to address all of these if working to restrictive referral criteria and within a disease-focused medical model (146).

In terms of the type of prevention best suited to this setting, executive staff within the ACT placed an emphasis on the need for primary prevention which focuses on stopping people becoming obese through actions which aim to address the needs of the whole population or which target sub-groups (50). However, as identified by both the team managers and clinicians, health services tend to see people once they have obesity and the health problems linked to obesity have arisen. Whilst this could be an opportunity for tertiary prevention which aims to minimise the impact of the conditions the person does have (50), health professionals do not necessarily see prevention as being part of their role. This perspective has developed both from the previously mentioned restrictions created by the service criteria as well as a lack of policy guidance. This lack of policy was observed to contribute to the clinicians not feeling confident talking to their patients about weight, as well as feeling that they could not implement practical changes such as allowing for longer consultations (147, 148). Across most health services, baseline knowledge on appropriate interventions to support obesity prevention is generally poor and clinical guidelines are not consistently implemented (149) (150). However, it is significant that the perspective across
all levels of the system is that health’s main role is disease management, which is reinforced by a lack of policy. This and the lack of feedback across the system creates significant barriers to incorporating obesity prevention into health service delivery.

Creating the New ‘Normal’

There are a range of organisational changes that may need to occur to see an increase in brief counselling around lifestyle changes delivered by health services. Policy needs to prioritise this type of intervention, supported by key performance indicators to monitor progress as well as appropriate incentives. Studies done in a variety of settings show that educating staff about prevention may lead to an increase in assessment of risk but not a significant increase in brief advice or referral to other services for prevention intervention (151). Both of these later elements are key to impacting on an individual’s chronic disease risk profile (152). Screening for obesity is a good first step in clinical practice, but including counselling has been shown to be more effective in supporting people to make lifestyle changes (87).

Across all levels of the ACT system, there was a misapprehension that if a person does not seek out information about preventing potential health issues or does not make lifestyle changes when faced with a chronic disease diagnosis, then they are not interested in their own health status. In the majority of cases, the key determining factor preventing people from seeking support to manage their weight is health literacy (153). Knowing the right questions to ask and being able to understand the information given is key to someone being able to adopt and follow preventive care advice (71). Training of staff may need to extend beyond principles of prevention, and also include training on communicating
complex information to people with low health literacy, as the effectiveness of any advice given will be impacted by the literacy and health literacy levels of the person receiving the advice. This should include teaching techniques to ensure health professionals clarify that their patient has understood information, including inviting questions on areas needing clarification (154).

It is also more likely that if someone is obese, they may delay accessing health care due to concern about being weighed or having the issue of their weight raised. They consequently wait until a problem becomes urgent and attend their health service with a sense of shame that they have not already taken steps to change their lifestyle or lose weight (155). In order for patients to not avoid care and for health professionals to offer the appropriate range of treatment and prevention options, population-focused public health messages should provide positive information relating to obesity, and education around the complex causality of obesity should be standard for all health professionals (156).

There also needs to be less emphasis on weight loss as the main outcome of intervention. Executive level staff, and to a lesser degree the clinical team manager, expressed a sense of futility that patients will not follow advice and even with intervention, they won’t lose weight. However, once someone is obese, it is extremely difficult for them to lose weight and maintain a significant amount of weight loss, and focusing on this as an outcome removes the focus from overall health (155, 157). If health professionals continue to aim to support patients to lose weight, then the feeling of nihilism will only be reinforced.
7.4 Conclusion

It is clear at both a clinical service delivery and at a population level that the impact of obesity is a problem for all. However, a normalising process has occurred which has seen health services adapt to obesity in the way that care is delivered. Whilst these adaptations are understood at all levels, the system impact is not captured in data, so no-one sees them as being their responsibility to address.

The challenge in determining who is responsible for addressing the issues, is striking a balance between providing effective treatment for acute and sub-acute problems whilst also integrating prevention in order to support individuals to change behaviours. The role of health professionals needs to be seen as just one component of an overall approach. Health services are faced with numerous competing priorities and can be vulnerable to change fatigue as they struggle to keep up with any number of pressures including local organisational change, changes to funding models, new techniques and technologies, waiting lists and targets. In trying to shift to a new way of delivering care, it is important to understand the impact of these and other competing demands (32). Changing the principle on which interventions are based rather than just increasing existing resources to do more of the same is an important element of introducing change in a complex adaptive system (124). Individuals can only change their behaviour if their community supports those changes through normalising actions such as providing improved access to public spaces to increase activity, increased access to healthy food choices and a reduction in the marketing of energy-dense foods. Both policy makers and health care practitioners also have a role to play in influencing policy decisions to reduce obesity rates across the entire population.
Chapter 8: RESULTS

The Obesity Discourse: Should health professionals be telling us we’re fat?

Chapter Overview

As per the grounded theory method described in Chapter 5, this chapter provides further analysis of the interview data, concentrating on the social process of discoursing, and how it links to the barriers to obesity prevention facing the ACT health system. The concepts addressed in this chapter, and chapter 7, will be used as the basis of the discussion chapter which, with reference to contextual literature, aims to draw the two key concepts together to provide substantive theory linked to the research questions.

8.1 Introduction

It was observed that the discourse around obesity within and across the different levels of the system influenced and shaped the way that this health service is responding to the impact of obesity at a service level as well as at an individual care level. The obesity discourse was observed to be influenced by a number of factors including personal experience, people’s observations of the impact of obesity on the health services, professional philosophy, and an internal narrative around how an individual may experience or respond to being obese. This discourse at times saw participants take a dichotomous position, particularly in terms of whether obesity is a disease and if it is a matter of individual responsibility. This was often accompanied by a sense of futility or helplessness when discoursing the effectiveness of obesity prevention. Participants’ perspectives were
seen to influence their views on how to broach the topic of obesity at an individual and a system level, how to have the conversation. There was an awareness of the shame and stigma that is inextricably linked to the societal response to obesity, but this did not extend to articulating what role health services could play in addressing this stigma.

An overview of these categories is represented in Figure 16. The relationship between the elements will be described in more detail in the results section.

Figure 16 The Discoursing of Obesity

8.2 Results

Across the ACT health system obesity and prevention is framed differently. At an executive level, obesity is framed as a population issue, with those setting policy focusing on population prevention, whilst those with operational responsibilities see prevention at an individual level, not sitting within the remit of clinical services, instead promoting treatment as the system priority. The system drivers for clinical managers are the service criteria which have primarily developed as a result of the continued focus on treatment within a medical model. The core driver for clinicians is the needs of the individual with an emphasis on building rapport and individualising care. However, they have limited influence over the
overall system drivers and so are constrained in their actions by a lack of prevention policy and restrictive service criteria.

8.2.1 Perspectives on Classifying Obesity as a Disease

The concept of obesity as a disease was not one which was framed by a consensus view within the different levels of the system. Across the groups, there was agreement that obesity is having a significant impact on the delivery of health care and an acknowledgement that there is a link between obesity and a range of chronic diseases. However, there was not a consistent view as to whether obesity is a disease or if in fact it should be classified as a disease.

‘Whether you decide obesity is labelled as a disease or not, I don’t care really. It’s in between. It’s at best an intervening variable between lifestyle issues which are not always about choice but are about the environment in which people live over their life course, and where that life course is going to lead in terms of actual diseases that are going to kill them early, and of course create major health service funding pressure.’ Executive 1

Executive staff with a population health or policy focus expressed a view that because of the way health services are designed to respond once people have a diagnosis, labelling obesity as a disease may help focus the healthcare response. However, overall, they could not settle on a definitive answer as obesity has elements of being both a disease and a lifestyle variable. Amongst executive staff with clinical service responsibility and the team managers, two normative perspectives emerged. There were those who claimed that obesity is a
disease and should be classified as such in order to attract health funding and to give people
an ‘excuse’ to change their lifestyle as a prescribed response to an illness. Those with the
opposing view felt that calling obesity a disease implies a need for a cure, which may imply
that the individual with excess weight is not within ‘normal’ limits, resulting in stigma. There
was also concern that the label of disease would result in health services being held
responsible for treating everyone who is obese, regardless of their health needs, putting
unsustainable pressure on resources.

Many people referred to the clinical services of community health are overweight or obese.
Some of the clinicians articulated that obesity is not a disease but becomes one once a
person with obesity has developed other related conditions, whilst others voiced the view
that obesity is a disease which impacts on people in a broad range of ways. Clinicians did
reflect that calling obesity a disease might give ‘permission’ for them to intervene if they
could see that obesity was impacting on the person’s recovery. In contrast, if obesity is not
considered a disease, there is no imperative for health workers to ask about risk factors and
if weight continues to not be a standard clinical indicator, obesity will continue to be a
taboo subject.
8.2.2 The Role of Choice and Individual Responsibility in Obesity Prevention

The role played by choice and responsibility in the prevention of obesity was a recurring theme across the interviews. Analysis highlighted two core concepts. The first related directly to choice and to the role of prevention being seen as influencing people to make better choices. The second related more to responsibility, specifically in relation to who had the ultimate responsibility for choice, with an emphasis on there being right and wrong choices.

The view from the executives was that whilst health services have a role in providing information or education, ultimately obesity is an individual responsibility and people should make better choices. Those executives with population-focused roles did specify a need for public health initiatives such as placing restrictions on the advertising of unhealthy foods. They identified this as a higher priority than delivering one-to-one prevention interventions. Executives with a clinical governance role were much clearer that, whilst health services can play a direct part in the treatment of people with obesity or associated chronic diseases, prevention is up to the individual. They did not advocate for health services having a role in influencing choice via population health measures.

Team managers were generally of the opinion that with ever-increasing demand for health services, particularly as the community caseload takes on more complex clinical issues,
treatment rather than prevention has to be the primary focus in a health setting. Health professionals can provide health education, but it is up to individuals to choose how they implement that advice. It should also be left to the patient to identify weight as a health issue. If a person who is obese has ‘chosen’ not to address their weight, there is not much point in health services initiating action.

Clinicians articulated that people ultimately can choose but we shouldn’t let this become a reason to stop trying to both influence and enable those choices. The clinicians put a lot of focus on building rapport with people and introducing the concept of lifestyle change linked to weight in a timely way, taking into consideration all the other issues the person may be facing. There was not the same focus on responsibility sitting with the individual; it was framed as being shared between the individual and the services they were accessing.

8.2.3 The Effectiveness of Obesity Prevention

Each of the participants was asked to articulate their definition of obesity prevention. This question was asked to investigate not just their knowledge of what constitutes obesity prevention but also to ascertain what they thought about the role of health services in delivering prevention. There was a broad understanding that there are elements of obesity

'Some people will just say, "It's too hard. There's too many other things going on." Respecting that, but also saying, "Just so you know," so they can make that informed decision, so that they know where to go to, to come back later on when they are ready' Clinician AH6
prevention which relate to a focus on the diseases linked to obesity but the typical response related obesity prevention to stopping people putting on weight as a key to preventing health issues.

Staff at a macro level could not clearly link prevention to the role of health services and generally expressed negativity towards the effectiveness of individual prevention. They put much more focus on addressing obesity through population-based primary prevention initiatives and were sceptical about the potential effectiveness of prevention for people who were already overweight. There seemed to be an overall view that secondary health services are not equipped to ‘do’ obesity prevention for adults and that only primary health should be working with individuals. The overriding sense that came through was one of futility, with a commonly held opinion being that once someone is obese, it is too late to address their weight.

‘I think that once people are obese, basically there’s nothing they can do to fix that. If they’re a little bit overweight, yeah, you’ve got a moment in time and maybe that will work’ Executive 1

The team managers spoke about prevention more generally as being a part of the community health role, for example falls prevention. However, obesity prevention or generally addressing nutrition and physical activity lifestyle factors is not prioritised in any systematic way. From the point of view of the managers, this is due to the increasing complexity of the community caseload, which limits the amount of time available for preventive work. The team managers as a group articulated a pragmatic approach towards the effectiveness of prevention with a descriptive claim that regardless of how effective prevention can be, there just isn’t capacity within community health services.
Clinicians were able to articulate where there was a need for as well as opportunities to implement prevention. They described themselves as having an obligation or duty of care to do something, but it is apparent that teams do not routinely build prevention into the services being delivered. Clinicians expressed an overall sense of helplessness in terms of implementing effective obesity prevention. The key factors impinging on their ability to act are a lack of clinical guidelines and not having ‘permission’ to address obesity due to the way service criteria shape the delivery of care. The clinicians also expressed a view that it is very hard for people to change their lifestyles to address obesity and in a community health setting they do not have the resources to help people make that change.

8.2.4 Having the Conversation: raising the topic of weight with an individual

‘Often you’ll talk to somebody about weight related stuff and the conversation is very difficult at the beginning but after you talk a little while, they generally catch on pretty quickly that there isn’t a judgement placed upon them because they’re obese or overweight. I think it’s that judgement that people struggle with’ Clinician AH3

The concept of ‘having the conversation’ with a patient or even a colleague about their weight was a core theme across the interviews. The clinicians and team managers saw this as an important element to factor into the role of health services in obesity prevention.

There was a common perspective across these two groups that in order to raise the issue of

‘…. the health dollar is stretched enormously and years and years ago, community nursing would do things like … we had walking groups and we’d take people walking around the lake…. Those days are long gone. As service demand has increased, those things have fallen away. To suggest that that could be recaptured, is I think a good idea, but probably somewhat idealistic…..’ Team Manager 2
weight, there needs to be rapport with the individual, and staff should respect the person’s wishes in terms of whether they want to discuss it or not. It was acknowledged that talking about a person’s weight is a difficult conversation to have, even for those professions who self-reported that they routinely ask about intimate topics such as substance abuse or trauma. It is particularly difficult to introduce it as a topic if someone is not referred because of their weight. As none of the services other than dietetics have obesity as a criterion for referral, and obesity is generally not included in the reason for referral, clinicians are left with the dilemma of whether or not to raise weight as an issue. There was agreement across the groups that talking about weight is a taboo subject and even when handled with sensitivity, it can be an upsetting or confronting topic.

The team managers seemed most conscious of the risk that talking about weight may be negatively misinterpreted and also emphasised building rapport. At a macro level, the idea of first building rapport did not feature and there was no clear understanding of whether clinicians can or do raise weight as an issue with patients. The exception was the executive responsible for the community services, who emphasised the need for clinicians to develop a relationship with their patients before raising weight as an important step in moving the person to a stage where they may be ready to discuss and address their weight.

‘Yeah, I think it’s (having the conversation) a case by case situation. I think I’d always approach it sensitively to start with because some people are very sensitive about it and other people are very pragmatic about it’ Clinician AH6

‘It’s about those people on the frontline identifying that, building rapport, having the conversation when they know that the person is comfortable having that conversation. That’s, sometimes, difficult. Because sometimes people do take offence’ Executive 11
8.2.5 Obesity, Stigma and Shame

The more removed from direct patient care study participants sat, the less focus they put on the shame that people may experience if their weight is high or is impacting on their health. The executive staff and team managers seemed to have a heightened awareness of the physical environment changes that had occurred to accommodate people with obesity as well as some of the physical challenges of caring for people with obesity but focused on the impact this has on resources rather than individual patients’ experience of receiving this care. Whilst clinicians were aware that people with obesity have different needs in terms of equipment or being able to engage in best practice interventions, they were more concerned about the impact that this has on the patients’ wellbeing rather than the overall impact on the service.

The clinicians were highly mindful of the impact of stigma on their patients, particularly in terms of raising weight as an issue. They were also very aware of the stigma that is connected to obesity at a societal level. They could see how obesity links to a person’s self-esteem and that being overweight or feeling unable to address weight can lead to a sense of failure for the individual. Clinicians factored in all these elements when thinking about how to address weight with a patient.

‘It’s such a self-esteem issue, I think, weight. Not for everyone who holds weight but definitely, a lot of people I see, are quite ... They’re not happy within themselves, I suppose. They find it quite difficult to, maybe, talk about it or maybe they’re embarrassed about their weight’ Clinician AH15
With a focus on the population health response, the executives’ perspective was less focused on the feelings that may be stimulated in an individual through experiencing shame linked to their weight and more on the negative impact of obesity at a population level. Across the team managers, there was an awareness that talking about weight or identifying weight as an issue can be shaming, with some relating it to their own experiences of trying to manage their weight. The team managers were aware of stigma but did not see it as an issue as they assumed that clinical staff would always be respectful in their interactions with their patients, including when having to raise the topic of weight.

8.3 Discussion

Obesity is often described as a ‘wicked’ problem, one that is difficult to solve because of the complexities inherent in the causes and therefore potential solutions. A key feature of wicked problems is that they may be considered to be a symptom of other problems (115). Certainly, the question of ‘what is the root cause of obesity’ is a vexed one. Does it sit with individual responsibility or is it due to the negative forces of the ‘obesogenic environment’? Is it a disease requiring a medical response, a social issue requiring a population health response or something completely different? Even the notion of prevention as applied to obesity brings with it its own discourse. As a concept, prevention can be difficult to define,

‘I think the biggest thing is not creating a stigma for people, because I think that if people are made to feel as if they are failures or have no hope of either being able to change, then it’s likely that it will fail. Whereas I think if people have got hope that things can improve and that there’s people walking this journey with them and they’re there to support them, then that is encouraging.’ Team Manager 8
even more difficult to measure, and the ideal point of intervention is much debated. There is often a conflation between what constitutes health versus what currently constitutes health care. Do we stop people getting fat or help them once they are fat? Should prevention focus on being supportive or, as has worked with tobacco control, should the focus be on making individuals aware of the damage they are doing to themselves (158), placing the responsibility on the individual to eat less and move more in order to achieve an energy balance conducive to good health?

As demonstrated by this case study, if a range of people are asked their views on obesity, there will be an array of responses (159). However, these perspectives and the conflict and contradictions inherent within them serve as a distraction, impacting on the way obesity and the consequences of obesity are approached by health services. With obesity inextricably linked to the development of chronic disease and with ever-increasing obesity rates, it is important to look at the main problem, which is that the correct systems and policies are not in place to direct health services to actions which support and enhance the array of approaches needed when trying to address complexity.

**8.3.1 The dichotomy of obesity as a disease: limiting or a practical solution?**

The question of whether or not obesity is a disease has been debated over many years (160) and presented itself throughout the interviews. Arguing about calling obesity a disease implies that the solution sits within the traditional health approach, which is designed to treat in hindsight at an individual level rather than prevent at a population level (161). With increased understanding of the aetiology of many diseases, health services favour a curative focus, which in terms of obesity can result in a focus on ‘medical’ solutions such as surgery
or pharmaceuticals, reducing the emphasis on behaviour change and health inequalities. This does not necessarily work for obesity, which isn’t a condition to be ‘cured’ (91).

Alternatively, the argument for formally classifying obesity as a disease is that it may help health professionals to understand that obesity is not a simple condition but is, instead, a complex and chronic condition with multifaceted causation which requires a range of interventions to minimise harm, rather than a definitive cure (162).

The arguments for calling obesity a disease presented by the case study participants aligned with those described in the literature. In particular, proponents of calling obesity a disease suggest that it would strengthen the argument for increased funding for research and treatment. Calling it a disease may help health professionals to understand and accept that obesity is not a simple condition requiring a simple change in habits, that it is a complex and chronic condition with multifaceted causation requiring a range of interventions to improve health and social outcomes. It has been suggested that increasing this understanding could lead to more health professionals raising weight as an issue rather than leaving it for someone else to address (163). However, as discussed in the previous chapter, for the clinical services of the ACT it is the restrictions caused by service criteria and a lack of clarity around the role of health services in obesity prevention which have the greatest impact, not the debate around the status of obesity as a disease.

*What is a disease?*

The concept of disease is not necessarily consistently defined within medicine and there are always exceptions to the rule which make a definitive definition difficult. Typical definitions of disease include some or all the following criteria:
- A condition or disorder of the body, body systems, organs, or bodily functions;
- Identifiable etiologic agent(s);
- Identifiable symptoms or signs;
- Resulting in harm or death to the affected individual (164).

Of course, this definition does not neatly fit all conditions considered to be a disease, in much the same way as it does not fully fit the concept of obesity as a disease. The aetiology or cause of obesity continues to be quite varied across individuals. Likewise, in some cases it may not cause harm to the individual or there may be a significant delay between obesity developing and symptoms of harmful side effects arising.

Is obesity a disease?

Under the World Health Organization’s (WHO) International Classification of Disease (165), obesity is classified as a disease, but currently in Australia it is not. An examination of the literature revealed that arguments for and against vary depending on the setting. In the United States, where health is mainly funded by private insurance, there is much more of an imperative to label obesity a disease in order to direct finance to both treatment and prevention. This was a key factor in the American Medical Association officially recognising obesity as a disease in 2013 (163). In countries with a universal healthcare system there may be the risk that over-medicalising obesity through a disease label might draw resources away from prevention and psychosocial interventions in favour of medical treatments. Alternatively, framing obesity within the medical premise of a disease could lead to an over-reliance on medication and surgery as the solution and move resources and attention away from addressing the impact of the obesogenic environment (166). There was no clear
consensus amongst the people interviewed for this case study and, interestingly, both sides of the discussion were able to frame their argument in terms of what they saw as the best option to enhance outcomes for people with obesity.

The difficulty is determining at what point being obese becomes a disease. Traditionally, a person is considered obese once they have a BMI of 30 or over. This implies a correlation between weight, height and health in relation to an agreed norm. BMI was developed to be used as a population health measure and as such does not take into account an individual’s age, muscle mass or fat distribution (167). As with all arbitrary cut-off points, there will be people on either side of this point who, based on biomedical markers, don’t fit the definition of disease. In other words, there will be people with a BMI under 30 who have clinical signs and symptoms of poor health and there will be people with a BMI over 30 who have low body fat percentages, good metabolic signs and no health issues.

If a person’s weight isn’t seen as a disease and therefore is not ‘diagnosed’, it may follow then that people will be less likely to have a clinical plan, missing an opportunity to document and initiate a combination of prevention and treatment. However, there is also the risk that a diagnosis implies treatment aimed at a cure rather than framing obesity as a chronic condition that needs long-term management to avoid health issues emerging. It has been argued that medicalising obesity in the absence of a ‘cure’ may lead people with obesity to feel there is nothing they can do to ameliorate the problems they have. The treatment of obesity is often viewed as a futile exercise as it is, in fact, difficult to lose significant amounts of weight. Without clear evidence of which will do the most good, both for the individual as well as for general population health, it is difficult to come
down on either side of the argument (168). This lack of clarity around outcomes was articulated in the case study and is further complicated by the ambiguity around obesity’s classification as a disease.

8.3.2 The role of individual responsibility: enabling, influencing or directing choice?

Choice and the link to the idea of individual responsibility came through as a strong concept in the ACT case study. In health services, the dominant biomedical approach to obesity points towards the primary cause being an energy imbalance, that is, the individual eats more than they use. This very much focuses on individual choice and responsibility and was the perspective articulated by staff not directly involved in clinical care. The alternative is framed in the literature as being a socio-ecological model which removes the emphasis from individual responsibility and takes into account economic, cultural and political determinants, which all play a part in influencing the individual. For example, the Foresight report released in 2007 (121) mapped the wider determinants of obesity including psychosocial, infrastructural, and economic. It highlights feedback loops, that is, those factors which reinforce or discourage particular behaviours. Despite the report’s overwhelming evidence, there continue to be opposing views regarding choice and individual responsibility, and policy and practice tend to ‘drift’ back to lifestyle approaches (89).

Clinical staff seemed much more aware of the notion that health is a combination of an individual’s behaviours as well as circumstances and environment; that individuals do not exist within a vacuum. While there are a range of physiological issues which impact on hunger, individuals also often report that for them eating habits may be linked to stress or
low mood, which can result in comfort or binge eating (169). Clinicians were aware of the psychological factors at play and subsequently conceptualised their role as being to enable rather than direct choice. For policy staff, however, obesity tended to err towards an individual responsibility focus, with education-based interventions which directed people to change their behaviour being the preferred approach.

Emphasising individual responsibility is aimed at empowering people to change but it may have the opposite effect, causing people who continue to be obese to be blamed or punished (170). Economic polices such as taxing unhealthy food or restricting the marketing of energy dense food are a move away from the focus on individual responsibility but require a lot more political capital and therefore are often not well supported at a policy level. This pattern was similarly seen in the early days of tobacco control and therefore it may take time to shift the policy response (171). This need for political capital was recognised by study participants at an executive level, particularly those who had a population health component to their role but was not a consideration for team managers and clinicians.

The clinicians and, to a lesser degree, the team managers were cognisant that people with obesity often have quite clear reasons why they put on weight and why it is difficult to lose weight or maintain weight loss. Previous research has demonstrated what the clinicians have observed, that an individual’s changes in eating patterns are often linked to significant life events such as having children or an injury or period of illness. People often identify a psychological trauma such as assault, separation or job loss. Attempts to lose weight will be impacted by a range of factors. Feeling self-conscious about exercising, lack of support from
family and lack of long-term support to maintain lifestyle changes all make it difficult for people to lose and maintain weight loss (169, 172). Previous failed attempts or weight cycling also have a negative impact on people’s ability to make lifestyle changes to improve their health. A focus on making healthier choices implies that weight can be controlled through willpower alone, which implies that overweight people just aren’t disciplined enough. Not acknowledging the myriad of reasons that a person may have a high weight reinforces a sense of failure if the person doesn’t reach the recommended weight, which may result in them giving up on all healthy practices as futile (172). For the clinicians, having heard these types of stories from their patients, they were much more aware that people who are obese may be seen as having ‘failed’ in their choices and of the risk of exposing the person to self-blame, adding to their sense of failing to live up to the ‘normal’ view of a healthy and ideal body (170, 173) (174).

8.3.3 Shaming and stigmatising and the impact on having the conversation

There is acknowledgement that obesity is a complex issue which results from a range of interconnected factors including biological, social and environmental. It is the impact that the combination of these factors has on individuals which leads to obesity. However, often this multitude of intersecting factors is overlooked, and obesity is framed more simply as being something that individuals can control. It is this view that can lead to stigma and discrimination (175). There was an awareness of the links between obesity and stigma across all levels of the ACT case study.

Generally, people who believe obesity is an individual responsibility do not support higher rates of investment in prevention whilst those who relate obesity to causes outside the
control of the individual support policy changes which support obesity prevention (176). This was reflected in the responses of the study participants. However, interventions targeting the general public’s knowledge about obesity and its causes in an attempt to reduce stigma have had mixed results (177) with the risk that drawing attention to a problem and the societal costs of that problem will increase stigma.

The issue of stigma related to obesity is highlighted within the literature. In relation to health, the experience of stigma, particularly the perception that it is the individual’s fault, plays a role in a person’s ability to think clearly about their weight and health and make clear decisions about what they might need to do to address the health risks (178). There is growing evidence that the stress caused by being on the receiving end of discriminatory and stigmatising behaviour can induce physiological changes which may lead to weight gain as well as a greater propensity to depression (179).

Stigmatisation over an extended period can result in a negative sense of self and a complicated relationship with food, where binge or comfort eating becomes a short-term antidote for self-loathing with a sense of failure at having allowed themselves to put on weight. Internalisation of weight stigma can result in the avoidance of physical activity (142, 180, 181). Fat stigma has been shown to result in people with obesity displaying discriminatory behaviour towards other people with obesity (142, 182, 183). The earlier the stigma is experienced, the more significant and long-term the impact (179). Teaching overweight people strategies to cope with obesity-related stigma has a positive effect on body mass, quality of life, perceived weight-related stigma and psychological distress (184).
Patients report that one of the most significant sources of discriminatory behaviour is from health professionals, and in previous studies a significant number of people with obesity reported receiving inappropriate comments about their weight from health professionals (142). This may include having difficulty accessing some services due to a lack of bariatric equipment, which can lead to feelings of shame (185), but can also extend to include the stereotype that obesity correlates with being lazy and unmotivated and characteristics not related to weight gain such as the person being dishonest or lacking intelligence (186). Health care professionals have been shown to spend less time with obese patients, provide less education about general health issues and undertake less screening (24) (142) (187). The consequence of this entrenched discrimination is that obese patients may be reluctant to seek essential care, particularly preventive care. Whilst the ACT case study did not include the views or experiences of patients, both the clinicians and team managers demonstrated a clear understanding of the stigma that a person might experience in their health care encounters and articulated that having access to appropriate equipment, as well as building a rapport with patients, were important tools to minimise the negative experience of receiving healthcare as a person with obesity.

It is significant that the ACT clinicians and team managers were aware of the need for rapport with their patients. Other research has found that patients may not wish for their health care provider to discuss their weight or may feel sensitive about the topic being raised. They are more likely to be open to the discussion if they have had the opportunity to build rapport and perceive that the health professional is sympathetic to the issues that have led them to gain weight. This factor, combined with the fact that those patients treated sympathetically are likely to be more successful in managing their weight, suggests
that despite a lack of policy guidance, ACT community-based services are in a position to deliver care in an understanding way, which is essential for success (88).

The language used to address weight in a health setting is important. Negative terms may be less stigmatising if used in the context of a conversation which generally shows more sensitivity to the person’s needs (188). The term ‘obesity’, though the most commonly used, is the least preferred with studies showing that patients prefer health professionals to talk about weight. Some studies have highlighted that ‘fat’ is not a word people like to be used, but in other cases, using the word has positive implications. Terms such as ‘obesity’, ‘fatness’, ‘excess fat’ and ‘heaviness’ have been shown to have negative connotations for people with obesity. Preferred terms tend to be those that are linked with the word ‘weight’ such as ‘excess weight’ or ‘unhealthy weight’. It should be noted that no term used to describe weight is completely non-stigmatising for patients and regardless of language used there is a chance that talking about weight may invoke a negative response from the person (189).

The health professionals consistently expressed concern over what language to use when raising the issue of weight and indicated a general reluctance to ‘have the conversation’. Their own weight was seen to have an impact on this, with some staff feeling that if they are overweight themselves they are not the appropriate person to be giving advice, while others felt that their own weight issues, or those of their colleagues, might make patients feel more at ease with discussing the challenges associated with weight maintenance. Public health practitioners look to previous prevention successes for possible ideas to tackle rates of obesity. Examples include reducing injury rates from car accidents by legislating the
wearing of seatbelts (146). The ACT executives with policy or population health roles focused on this element the most, drawing parallels with actions taken to reduce rates of smoking. However, it must be remembered that part of the success of tobacco control was the ‘de-normalising’ of smoking, which was a deliberate attempt to increase the stigmatisation around smoking. This was combined with legislative and health promotion messages (190). Though these types of initiatives can be successful, the executives were aware of them being criticised as being a product of a ‘nanny state’, where individual freedoms are impinged on and ‘the government’ interferes in people’s lives.

8.4 Conclusion

There is a widely held view that obesity is the responsibility of the individual – eat less, move more and energy will balance. Clearly it is not that simple, or the prevalence of obesity would not be rising in developed and developing nations alike. The way we frame obesity as a matter of choice and sit it within the disease-centric medical model prevents health services from playing an effective role in the prevention of obesity. It may also be used as a reason for inaction if there is a belief that being obese is the person’s choice, that we can’t choose for them to change their lifestyle and we need to prioritise treatment over prevention. Stigma is inextricably linked to the concept of choice. The shame that accompanies obesity can create blocks both in terms of people accessing health services and in health professionals feeling able to initiate a conversation about weight.

A higher level of knowledge on the complex, multifactorial causes of obesity has been shown to lead to a less negative attitude to those people with obesity. Even though, at a service delivery level, ACT staff were aware of the stigmatisation and discrimination that
accompanies obesity and the need for rapport, this was not as clearly articulated by those people with responsibility for setting policy. Challenging the discourse around obesity, including the assumptions made, needs to be a starting point in moving forward in enhancing the role of health services in the prevention of obesity.
Chapter 9: DISCUSSION

The Obesity Paradigm: Choice, Responsibility and the Role of Health Services in the Prevention of Obesity

Chapter Overview

The aim of this chapter is to discuss the concepts grounded in the data of the ACT case study in order to develop substantive theory. The focus of this chapter will be on discussing the implications of these theoretical concepts and how they relate to the existing body of knowledge on this topic.

9.1 Summary of results from the ACT case study

It was observed that across the ACT health system, services have evolved in response to the growing complexity of clinical care needs and the growing rates of chronic disease and obesity. At a macro level, the policy response has focused on population level initiatives, which reflects the data available on self-reported lifestyle factors and overall rates of obesity (12). At the meso level, the focus is on outcomes such as waiting times, occasions of service and length of stay. As demand has increased, service criteria have been tightened to cope with the increased demands of caring for people with obesity. This has impacted on the micro level response, with clinical services focusing on treatment with little capacity or opportunity for prevention.

A systems approach requires feedback between the different levels of the system (2) and this is not occurring in the ACT health services. Analysis of the case study data showed that the ACT health service response to obesity is influenced by the perspectives of the ‘actors’, and that these perspectives, along with the barriers created by system-imposed boundaries
between the levels, and particularly the lack of feedback between the levels of the system, underpin two social processes:

1. The Normalisation of Obesity: a normalising process has influenced the health service response to obesity which impacts on the ‘doing’ of action in relation to prevention.

2. The Obesity Discourse: there is a discourse underpinning the perspectives of staff within the system. Analysis of this discourse accentuated contested concepts, such as whether obesity is a disease and whether raising obesity in a health encounter reinforces stigma.

The perspectives and the underlying assumptions supporting each of these social processes frame obesity as a matter of individual choice and responsibility and sit the health service role within a disease-centric medicalised model, resulting in an emphasis on treatment over prevention.

9.2 The Obesity Prevention Paradigm

Central to each of the social processes grounded in the data, is the obesity prevention paradigm. A paradigm refers to the way in which an issue is framed, a way of considering or understanding something. It is the source of a system’s goals and it encapsulates the socially constructed values, beliefs, practices and assumptions of a group or community (21). Identifying a systems paradigm can help highlight the source of any blockages to change as well as potential solutions (119, 191) (192). Underlying a paradigm is the discourse which contributes to the way a system is understood and therefore framed (21). For example, within a health system, a medical obesity paradigm concentrates on medical approaches
with an emphasis on technical interventions. This paradigm does not support a person-centred approach which would consider a range of factors including the person’s individual circumstances and the context where the service is being delivered (193, 194). Alternative paradigms include one which stems from the social discourse underpinning the way obesity is portrayed and discussed in the media, or a personal paradigm which influences how someone responds to their own weight and body image (4, 195).

At the heart of the ACT health service obesity paradigm is the concept of choice and how this relates to the idea of responsibility applied to obesity prevention. This central premise is determined by the discourse around obesity, in particular the status of obesity as a disease and how this links to stigma. Figure 17 provides an overview of the key elements influencing the paradigm at each level of the system.

Figure 17 Factors contributing to the Obesity Paradigm
A key to systems thinking is to ensure that a range of views are challenged and explored from a variety of perspectives to ensure that priority isn’t given to just one paradigm (97). As was observed within this research, often groups can suggest or enact solutions that sit within their own paradigms, such as tightening service criteria to cope with increased demand. Yet no one level of the system is equipped to assume health-service wide stewardship (196) or to present a solution that can address the complex social and psychological factors influencing a person’s weight journey (91, 197).

9.2.1 The implications of placing choice at the centre of the obesity paradigm

Despite a shift in understanding of the societal level causes of obesity, it continues to be framed as a problem underpinned by an expectation that it is up to the individual to fix (90). Even people with obesity tend to apply an individual blame-centred discourse to their own situation, framing their weight gain as being a shortcoming of their own motivation or inability to deal with specific challenges (3). Media portrayal of obesity is often framed in negative terms with the use of words such as ‘epidemic’ which can convey a sense of panic or contagion. There is also a constant emphasis of the cost of obesity as being a problem for society, which reinforces a pattern of blame (176). Even public health campaigns aimed at reducing obesity rates have typically focused on targeting the behaviour of individuals within particular demographics, encouraging them to make lifestyle changes for the sake of the collective health of the community (176). There is a lack of empathy towards the individuals in terms of the health issues they may be experiencing or the discrimination they may be facing (198).
In reality, individuals do not exist within a vacuum, there are numerous elements which influence weight gain as well as a person’s likelihood of reversing obesity through weight loss. Psychological trauma such as assault, relationship breakdown or job loss, or a significant life event such as having children or an injury, are often at the root of weight gain (169). Factors which make it hard for people to lose weight and maintain weight loss include feeling self-conscious about exercising, lack of support from family and lack of long-term support to maintain lifestyle changes. Previous failed attempts or weight cycling, controlling hunger, and psychological factors such as stress or low mood also have an impact on people’s ability to make lifestyle changes (169, 179). Assuming that an individual has a choice about being obese and then using that assumption as a link to make the supposition that they have responsibility for dealing with the negative health outcomes can lead to obesity being framed as a moral failing. Once a moral judgement is made, it is very difficult to get people to change their point of view, resulting in a belief that ‘permission’ has been granted to discriminate against someone due to their weight (199).

A continued emphasis on choice as the central factor in obesity prevention could be translated to mean, as advocated by the food industry, that people should be given lots of choice and then educated about what correct choices to make. Others argue that choice should be influenced by putting limits on things such as packet sizes, providing space for physical activity, or restricting the marketing of ‘unhealthy’ products so the choices available have parameters re-set (200). Others may argue that choice and responsibility need to go further, with individuals being held responsible for the health problems that occur as a result of lifestyle choices. This could take the form of denying them treatment for ‘lifestyle’ conditions, giving someone lower priority or requiring a greater financial
contribution if the person is deemed ‘responsible’ for their health need. It could also be extended to using incentives to motivate people to make ‘better’ choices. The problem with this approach is that it does not sufficiently account for health inequalities and can in fact reinforce them. It also risks exposing individuals to self-blame and adds to their sense of shame (174).

Socially sanctioned criticism of weight gain and a focus on personal responsibility (201) also extends into healthcare encounters, with biases and unfounded assumptions about the characteristics of obese individuals and the futility of treatment. Health care professionals have been shown to spend less time with obese patients, provide less education about general health issues and undertake less screening (24, 142, 187). There is an assumption that health-service based obesity prevention means that at every health encounter everyone should be told about the risks of excess weight and given clear advice on what to do to avoid being obese. A ‘choice and responsibility’ paradigm reinforces the idea that it is then up to them to do something about their own weight or be prepared to be responsible for the consequences. This approach has not been shown to work as the determinants of someone’s behaviour are not primarily about choice, meaning it is not appropriate to attribute responsibility (161).

Framing obesity as a matter of choice is an attempt to simplify what is in fact very much a complex problem (202). The framing of a problem can influence policy so inaccurate framing can mean an inaccurate policy response. Focusing on choice can also become an ‘excuse’ for inaction – if we can shift responsibility to the person with obesity, then it reduces the level
of responsibility in the system, a response that thus far, has not achieved meaningful results (4, 161, 191, 203).

9.2.2 Framing obesity as a disease

‘To say whether a condition is a disease or a mere variation, we are forced to consider not only its physical nature but also the nature of our own agency and the condition’s relationship to some agreed upon definition of morality.’ What Makes a Disease a Disease? Unwell (page 152) (204)

The framing of obesity as a disease was raised across each level of the ACT health system and it is a recurring concept in the obesity prevention literature, as described in Chapter 8. On face value, debating the status of obesity as a disease may assist health services to resolve practical matters such as directing resources to the treatment of obesity. However, the case study data analysis disclosed that a focus on a dichotomous view of obesity as a disease contributes to a medicalised framing of obesity which, in turn, prevents health services from expanding their role beyond obesity treatment to a focus on prevention.

Conventionally, disease is associated with suffering or disability and therefore seen as being undesirable. It suggests a digression from a ‘normal’ state and may label the obese body deviant (194). Using ‘normal’ as a yardstick attaches a social judgment leading to an increase in stigma, overlooking the fact that social values change and evolve, and vary across and within cultures. Calling something a disease risks changing the values attributed to the person with that condition, potentially impacting on their social status and their right to access health and social support (205). Promoting the view that obesity is inextricably linked
to ill health, and therefore a burden on the health system, reinforces the negativity faced by people who are outside the ‘normal’ weight limits.

Whilst being diagnosed with a disease may add legitimacy to an issue it may also be grounded in the values of a specific culture. Not all societies view obesity as a negative state and there may be a range of views on what is considered ‘normal’ weight. Excess weight may be viewed as a sign of prosperity or, in communities where under-nourishment is an issue, as a positive alternative to starvation (204).

There is a risk that inextricably linking obesity to ill health will reinforce the stigma and discrimination faced by people who are outside the ‘normal’ weight limits (206). The more strongly someone feels that obesity is caused by the individual’s lack of control, the more likely the person holding that view is to have negative views about people with obesity (198). An externalised manifestation of stigma results in people with obesity experiencing discrimination and personal criticism. This leads to an entrenchment of internal stigma where the view of self is negative. This can result in behaviours such as social isolation, disordered eating and avoiding health care encounters (207).

In Australia, even as a greater proportion of the community become obese with increasing numbers on the higher end of the classification, being obese is seen as being undesirable and harmful but not officially classified as diseased. Studies asking children to rank how much they like children with a range of characteristics have shown that children who are obese have been ranked as being liked less increasingly over time (182). The portrayal of people who are overweight or obese via the media or entertainment often sets them up as characters for ridicule and they are rarely cast in heroic or central character roles.
Comments about or towards heavier characters are generally negative. They are also likely to be depicted as having poor or excessive eating habits. Conversely, thin characters are portrayed as being positive in terms of their personal characteristics, popularity and success. This stereotypical portrayal has been shown to reinforce stigmatising attitudes, particularly amongst young people (142). Obesity stigma or fat-shaming is often excused as being necessary or in someone’s best interests, with an accompanying assumption that the person has control over their weight.

Health professionals generally have a negative attitude towards obesity at similar rates to the general population and feel it is more difficult to treat people with obesity. Patients report that one of the most significant sources of discriminatory behaviour is from health professionals and a significant number of people with obesity report receiving inappropriate comments about their weight from health professionals (142). Studies of doctors consistently find that they believe non-compliance and lack of motivation by their patients is the biggest barrier to supporting weight management. Physicians’ assessments of obese patients’ level of motivation are much lower than patients’ own reported motivation levels. Similar results have been found amongst nursing staff, even when the nurses articulate an understanding of the significance of obesity being a stigmatised condition (142). The disconnect between the perception that they should be helping the obese patient, and the sense that intervention is futile and limited by a patient’s motivation, may leave health professionals with the dilemma of not knowing what it is they should and can do. The consequence of this entrenched discrimination is that obese patients may be more reluctant to seek essential care, particularly preventive care.
Stigma was raised in the case study as an issue both supporting and rejecting the labelling of obesity as a disease. People are stigmatised when they are marked as different and possessing qualities that are not valued, and obesity stigma is tied up in stigma relating to socio-economic status, race and culture (190). Those who say obesity is not a disease believe that labelling someone as having a disease will only increase the stigmatisation of how they look and may also have a negative impact on their ability to manage or control their weight by promoting the view that obesity is inextricably linked to ill health and therefore a burden on the health system. Alternatively, calling it a disease may take away the implication of individual responsibility and frame it as something that individuals need to be supported to manage, an argument to increase the funding of research and provision of prevention and treatment (139). It is difficult to determine which of these perspectives may be the most accurate as obesity stigma is multi-layered and interventions targeting the general public’s knowledge about obesity in an attempt to reduce stigma have had mixed results (208).

As a stigmatised condition, explicit or implicit discrimination is not uncommon and may impede access to services or decrease effectiveness (208). Arguing for or against obesity as a disease should be done with a view to reducing the medical, psychological and social challenges faced by people with obesity, not just stopping them being fat. Continuing to debate whether or not obesity is a disease risks losing sight of the real issue, which is that health services need to take different action and be part of a whole-system approach. If taking the step to call obesity as a disease is not effective in reducing stigma or the negative views associated with obesity, then whether or not obesity is a disease is a somewhat redundant point (207). A focus away from the concept of obesity as a disease, with
increased focus on prevention rather than treatment, may present a large shift in philosophical approach for many health services currently driven by symptom-based targets. Whether or not it is a disease matters less than what we decide we are going to do about it and how health services are supported to shift to a prevention focus.

9.3 Discussion: how should we frame obesity?

‘It is much more important to know what sort of a patient has a disease than what sort of a disease a patient has.’ Attributed to William Osler

The framing of obesity has changed over the years, with increased awareness of the impact of the environment and genetics. There is now a clearly established link between socio-economic disadvantage and obesity; the greater the disadvantage, the higher the rates of obesity (209). The term ‘obesogenic environment’ focuses on the negative forces at play in an individual’s system, which reinforce or discourage a particular behaviour. Gender, mental health, behavioural factors such as amount of sleep and coping mechanisms, occupational demands and access to positive food environments also influence individual and population levels of obesity and there are intersecting feedback loops between these elements (121). This shift in thinking has gone some way to shifting the emphasis from something that people do to themselves to something that they experience (210). Despite this, the paradigm of choice continues.

The current policy response within clinical health services is to approach obesity as a problem that needs to be fixed through treatment, which is measured in terms of weight loss and framed within a biomedical perspective which focuses on the concept of energy in,
energy out. That is, if an individual consumes more than they expend, an excess of weight will result. This medical model favoured by health professionals is insufficient as a tool for obesity prevention as action tends to occur once health problems linked to obesity have arisen, therefore impacting very little on the overall prevalence of obesity. Furthermore, the focus on weight loss as an outcome takes the emphasis away from overall health and wellbeing. In this paradigm, the solution to obesity is for individuals to be educated on how to change their energy imbalance so that they will lose weight. The concept of prevention within this paradigm focuses on an absence of disease (211) and the relationship between patient and healthcare professional is often simple and binary, which does not help when attempting to address a complex problem such as obesity (192) (119, 143).

An extension of the medical model is the chronic disease management approach, which highlights the complexity of chronic conditions including the lifelong nature of the condition and the reality that relapses will occur. Framing obesity as a chronic relapsing condition shifts the focus of behaviour change from outcome to process, which opens the possibility of addressing a range of factors (212, 213). This approach can provide more opportunities to introduce prevention into a health care encounter by moving the emphasis from treating obesity through weight loss to preventing the development of poor health or preventing the exacerbation of existing co-morbidities impacted by weight. Obesity and its associated health problems can develop over a number of years, so it may also encourage a model of intervening based on an individual’s readiness for change rather than an arbitrary symptom or set of clinical markers (160).
However, there is a risk that working towards patient empowerment is getting the person to agree to more self-control and to conform to a prescribed programme, which can bring the focus back onto choice and individual responsibility. Health professionals may view a patient’s inability to self-manage or make recommended changes to lifestyle behaviours as a personal failing of the individual when it may in fact be linked to their sense of identity around their obesity (180). It is important that health professionals understand the high prevalence of weight cycling that occurs for people with obesity. Many people utilising health services will have been obese for an extended period and are likely to have attempted to lose weight multiple times. Some may have lost weight and then regained it; others may have struggled to lose significant weight. Patients report that they would like their health care professional to understand this cycle and believe them when they describe the lifestyle changes they have attempted (214).

An alternative is to look beyond traditional healthcare models. The social-ecological perspective focuses on the influence of the environment and how it impacts on the food choices made and physical activity undertaken by individuals, and actions which promote universal prevention to help reduce the overall chronic disease burden, increase productivity resulting in economic benefits, improve quality of life and protect the environment (201). This approach favours ‘upstream’ cross sector changes to impact areas such as taxation, urban planning to improve transport and the built environment, and interventions such as regulation of the food industry. These interventions aim to support healthier lifestyles whilst moving away from a focus on individual-driven change. A population response to the issue of obesity ideally promotes less blame-based messages supported by policy change which positively influences individual behaviour. For example,
the marketing of unhealthy food may influence an individual’s choice of food, so it may be that restrictions on marketing decrease this influence. These changes are aimed at influencing individuals and addressing health inequalities, but need buy-in at a social and political level (3). Prevention is at the core of this paradigm, with an emphasis on addressing the social determinants of health for a whole population and subsets within that population who are vulnerable or marginalised (211).

However, having knowledge does not equate to having an ability to modify behaviour and there is no evidence that information campaigns, particularly for those disadvantaged groups disproportionately impacted by obesity, result in a reduction in rates of obesity (203). Public health messages often focus on a simplistic narrative about the amounts we eat and amount of physical activity we do, reinforcing the idea of obesity being about willpower and personal responsibility. The media is shifting to focusing on environmental causes of obesity such as fast food providers but there is still an underlying message that people have to make better choices to avoid these outlets (202). This contributes to a social narrative that obesity is self-inflicted through choice, leading to a view that the solution to obesity relies on individual responsibility (201, 207).

There has been a move to challenge the way that obesity is framed by media and the food and beverage industry, with a call to recognise stigma and move away from a blame model. However, if health services continue to frame obesity in a disease model, more specifically that the ideal is a complete absence of ‘disease’, the response may continue to be framed as looking for a cure, which does not help remove the stigma of obesity being an abnormal or deviant state (191). Prevention is also notably difficult to prioritise over more immediate
issues, particularly in the health space (43, 158). This issue is exacerbated by what has been labelled a policy cacophony as different parts of the system attempt to translate evidence into policy within a range of varying paradigms, making the task seem overwhelming and hopeless (43, 191).

A further barrier is that prevention policy is a highly politicised subject. Legislation to improve the obesogenic environment may be met by accusations of ‘nanny-statism’ (215), with governments afraid to interfere too much in people’s lives or to upset key lobby groups whose interests aren’t necessarily focused on the long-term wellbeing of society. Politicising an issue may have the benefit of drawing attention to it but whether or not this will have a positive outcome will depend on how the problem is framed. The long-term nature of potential approaches mean that they often don’t fit within an electoral cycle and this can make it a challenge to get support in the face of more immediate and tangible issues. What this results in, though, is that prevention policy ends up not being one focus, but a collection of policies attempting to direct the actions of a range of disparate services. This adds to the fundamental difficulties with measuring effectiveness, recognising the best point to intervene with the fewest negative unintended consequences, and knowing whose evidence to draw upon.

One approach to public health, as proposed by John Stuart Mill, is based on the premise that the government should only interfere in individuals’ lives when their behaviour risks harm to the health of others. If individuals are informed and have capacity, they have the right to engage in behaviours even if they may be harmful. This rule may be broken for sudden onset or communicable public health issues (216). But how does obesity fit into this? The
risk to the population’s health from the increasing rates of obesity has occurred over an extended period of time so while there is an absence of sudden onset, it is clear that any attempts to mitigate the rates of obesity will also take time. To further complicate matters, the consequences of obesity are highly variable between individuals, and there are good evidence-based options to treat the disease conditions which may occur in conjunction with obesity. So, is obesity the public health emergency or is it the diseases associated with obesity? If obesity is seen as a health emergency then interventionist polices take precedence over individual liberties, but declaring obesity a public health emergency may increase individual stigma, which could in fact compound the negative physical and mental health issues experienced at an individual level (216). This suggests the need for a way of framing obesity beyond traditional medical and public health paradigms.

The challenge of complex problems is that the solution is rarely simple and certainly does not follow a linear process (97). In responding to obesity, consideration needs to be given to all perspectives in order to combat stigma and to find ways to raise the issue of someone’s weight without blame. The ACT case study affirmed that people acting within different parts of the health system see the complexity of obesity from different angles. Whilst their role may reinforce thinking with an ‘either or’ approach, the opportunity may sit with bringing those divergent views together in order to challenge the dichotomous discourse and to shift beyond a disease-focused medical model which emphasises individual responsibility, to instead look at options for models of care which focus on the broad range of social, biological and environmental factors which contribute to obesity, opening up the possibility of shifting to an approach where obesity is not seen as being the fault of the individual but is in fact everybody’s responsibility.
9.4 Conclusion

It is difficult to avoid the dominant obesity discourse of choice and responsibility while we continue to blame individuals not just for their own issues but also how their weight is impacting negatively on broader society. It is not helpful to blame people for their weight nor is it fair or realistic to expect that a simple approach will enable them to make the wide and varied adjustments that are needed for people to change their lifestyle. Obesity is a complex problem and the system that health services sit within is also highly complex. Simplifying complex messages runs the risk of resulting in simplified solutions which won’t actually address some of the core issues and only serve to reinforce stigma and shame. If the dominant narrative continues to be that obesity is bad for individuals and for society, it only serves to underpin discrimination (207, 217).

The clinicians working in health services understand this but are not supported by health service policies or systems. Those responsible for the policy level understand the need for a population approach but not how to apply this through to the individual level. There is a clear need to bring these perspectives together. If health services frame obesity as a social problem, as one of health inequality rather than a disease to be cured, there will be an opportunity to frame the response as a series of actions and principles rather than being a one size fits all linear solution. Health services have a role to play in challenging the assumptions and negative stereotypes that frame obesity and to develop a paradigm which does recognise complexity and moves beyond the concept of choice, as people do not make a dichotomous choice to be obese or not.
Chapter 10: CONCLUSION

Reframing the Obesity Paradigm

Chapter Overview

This chapter concludes the ACT case study by summarising the findings in relation to the study aims, discussing the implications of the findings, outlining the strengths and limitations and recommending next steps in terms of future research.

10.1 Introduction

With an issue as complex as obesity, whilst dichotomies abound it is naïve to think that there is a simple or singular right way of thinking about the issues. Systems thinking highlights that a complex problem is emergent and has a high level of uncertainty with highly unpredictable outcomes. Success is not dependent on following a simple set of linear rules but follows a non-linear path with multiple entry points and opportunities for learning. Applying a systems approach to obesity switches the focus from the need for everybody to lose weight by eating less and moving more to identifying the multitude of influences on someone’s behaviour and a range of ways to address change. At a healthcare delivery level, this could help support clinicians in working with individual patients as well as in the ways that policy and service criteria are developed.

The improved control of communicable disease, combined with the rise of non-communicable lifestyle related conditions, has seen the burden of care on health services shift from acute to chronic illnesses (218). Obesity, which has also seen a rise in prevalence, is associated with many chronic conditions. However, unique to obesity is the way it is
framed as a social problem with a focus on individual responsibility and behaviour change (173). This overlooks the many interacting drivers that lead to chronic weight problems and simplifies the response to obesity as being to just eat less and move more. This is reflected in many public health messages which outline the recommended number of minutes of physical activity children and adults should be doing and guidance on healthy eating (13, 14). While this may be straightforward for some, for many people, particularly for those with limited resources or those who are managing other chronic mental or physical health conditions, adopting behaviour change is a significant challenge. For those who cannot make change, guilt and worry can result. There may be a perceived implication that not following the plethora of information available on how to not get fat or how to lose weight, is in fact a conscious choice made by the individual. Those who are obese may be seen as having ‘failed’ in their choices and failing to live up to the ‘normal’ view of a healthy and ideal body (170, 173).

This perceived failure carries over into the provision of healthcare. In an ideal world, individual interventions provided in a health setting would aim to support people to adopt lifestyle practices which minimise the risk of weight gain and the development of associated chronic disease. However, often it is not until people develop the health issues related to obesity that they have contact with hospital and community-based health services where the focus is on the treatment of disease. The key indicator of obesity as a disease is weight and body mass index (BMI) so a treatment-based solution tends to focus on interventions which target weight loss. However, this solution-focused approach centres on individual responsibility (3, 4) and overlooks the societal factors contributing to weight gain, particularly the impact of negative perceptions levelled at people with obesity (119). Rather
than seeing the goal of obesity prevention as only targeting weight modification it may be that what is needed is for health system policy to address how people perceive and treat others who have obesity, in order to reduce stigma and discrimination within the health system (119).

10.2 Summary of Findings in Relation to Research Questions

This research set out to answer three key questions. These questions were deliberately kept quite broad as the aim of the research was not to test a specific hypothesis but instead to examine two broad concepts, namely the potential for a secondary health service to incorporate obesity prevention into its service delivery and how local perspectives, relationships and system boundaries may enable or hinder this potential. The findings in relation to each question can be summarised as follows:

i. What is the evidence for effective secondary health service-based obesity prevention interventions targeting an adult population?

A review of the literature established that health services should aim to screen for obesity and refer to appropriate intervention services. However, on the whole this is not happening. The literature proposes that this is due to practical issues such as time and resourcing as well as the impact of the perspectives of individual health professionals. The conclusion following the literature review was that health services need to move beyond medical treatment in order to incorporate obesity prevention which provides more than screening and referral (9).
ii. How is obesity and the prevention of obesity currently perceived by people working in roles at different levels of a secondary health service including:

- **Macro: policy development or executive oversight of operational services**
- **Meso: management of clinical services**
- **Micro: clinical service delivery.**

The analysis of the case study interviews demonstrated that people sitting within different parts of the health system see the complexity of obesity from different angles. Obesity is framed as a problem which emphasises individual responsibility, leading to a view that the solution lies with individual behaviour change (119). There is collective doubt around the benefits of the health sector intervening once someone is already obese, due to a prevailing view that preventing obesity is a matter of personal responsibility and choice. Executive staff (macro) hold a population level focus, with a belief that obesity prevention is the responsibility of the person affected and at a clinical health service level effort is futile. Clinical managers (meso) have a high level of awareness of the complexity of obesity but with increasing demand on services, their focus remains on disease treatment, with a view that there is not much that health services can do to introduce obesity prevention in an individual encounter. Clinicians expressed empathy towards overweight people but in the absence of clear policy direction and concern around the sensitivities of raising the issue of weight, had limited opportunity to focus on prevention.

iii. How do these perceptions impact on the implementation of health service-based obesity prevention?

The use of grounded theory to analyse interviews with staff working at macro, meso or micro levels of one health system established that the way we frame obesity (within health
services) as a matter of choice, and deliver services within a medical disease model, prevents health services from playing an effective role in the prevention of obesity. This prevailing narrative leads to unintended consequences as the continued focus on the need for individual change contributes to blame and stigma which compounds the negative elements associated with obesity for the individual, which ultimately does not result in any positive change at an individual or a societal level (217).

10.3 Reframing the obesity paradigm

In March 2019, the Obesity Collective released a report entitled ‘Weighing in: Australia’s growing obesity epidemic’, which highlighted the growing rates of obesity, the impact of obesity on society and the cost of obesity (219). The report also outlined that there has been a growth in the number of people with the highest class of obesity, measured in terms of their body mass index. If we frame obesity within a paradigm of choice and responsibility, we would view this change as being the result of people with obesity not taking on board public health messages to eat better and to increase their physical activity, along with an assumption that people with obesity are not motivated to change. Or we could frame the changing rates of obesity differently and start to look not at how individuals are failing society, but how society may be failing individuals. It could be because simply telling people they are fat isn’t enough to stop them being fat. As highlighted in the report, blaming people is unfair and it doesn’t work.

As people with obesity tend to access healthcare services more often, and on admission stay longer (90), there is a need to move past the dominant medical model and to evolve the way that health services conceptualise the approach to obesity. Treatment is ‘normal’ for
health so they just keep treating problems as they arise rather than looking at ways of stopping the need for treatment (91). The opportunity may sit with bringing together the divergent views of people based within different parts of the system in order to shift the framing of obesity and of prevention. Utilising a systems approach provides an opportunity to develop a shared view of the problem and potentially to work through a solution that is understood by and meaningful to all (220).

Health services are a complex web of competing groups entrenched in differing hierarchies and views on how to best deliver care. The perspectives of the individuals who make up the system will be influenced by a range of factors which sit outside of the obesity system (217). Consequently, shifting a paradigm takes time as well as requiring an enhanced feedback loop (119). This does not mean changing practice should be avoided. Rather, it means that different approaches need to be taken in different settings, even when the overall goal of change is the same.

The Challenges of Change

The role of health services in the prevention of obesity is fundamentally challenging across a number of domains. It is difficult to know when best to intervene – do we stop people becoming obese, or wait until there is a risk of health issues and then intervene? It is also difficult to know what to measure as success – is it fewer people becoming obese, fewer people developing related disease, or should we measure population benefits such as reducing inequalities or reducing economic burden (43)? The reality is that health services have a role to play in advocating for a population health approach as well as incorporating a prevention focus into clinical services, but they cannot act alone. Responses to obesity need
to be multifactorial and tailored to the local environment and circumstances (51). This may include population-based responses such as improvements to infrastructure to enable physical activity, legislation to regulate the advertising of energy-dense foods to reduce the misinformation being presented to people, or school-based education programmes on healthy eating to support people to develop lifelong skills.

Whilst there has been much written about the wider determinants of obesity including psychosocial, environmental and economic, in considering obesity as a disease, policy and practice tend to ‘drift’ back to lifestyle approaches (89). This may be why health services are struggling with the role they play in preventing obesity. Health processes are often looked at through a reductionist lens, with the aim of repairing or solving issues linked with disease. This approach does not translate to obesity prevention. Human health is a ‘complex system’, meaning it is non-linear, chaotic and unpredictable, whilst health services tend to be divided into specialisations which look at narrow parts of the whole system and don’t often communicate between groups. Specialist areas are ideal to treat specific diseases of certain parts of the body but not necessarily for whole person care. This makes it difficult when people develop obesity and may need access to a range of specialisms or an approach which falls outside the medical model (108). Linear processes are much easier to measure as indicators can be applied across a range of settings with similar client groups or service goals. There is a risk inherent in judging health performance only on the basis of a linear patient trajectory or at a fixed point in care as this does not measure ‘process’, which can into account for things such as the way different professional groups interact, the complexity of the individual’s needs or variations in a patient’s journey. There needs to be a
balance between measuring throughput in a linear fashion and attempting to factor in the complexity of the specific setting.

The medicalised model serves to reinforce the concept of individual responsibility by focusing on treatment as a pathway to cure or a more significant resolution than that which is available. Treatment, in most cases, won’t stop someone being obese. We should be looking at what obesity is a symptom of rather than treating the visible result. Participants in the ACT case study acknowledged that they will opportunistically provide brief advice, but this is not the same as offering ongoing and individualised support. This means moving beyond looking just at diet and physical activity to considering what might be the root cause, including factors such as mental health issues, past trauma, poor stress management or family dynamics.

There are several normalised elements that need to be challenged in order to evolve the way health services respond to obesity. The ‘normal’ goal of obesity management is weight loss. Despite an ever-growing weight loss industry, the vast majority of people who attempt to lose weight are either unsuccessful or regain the weight lost and in many cases, end up weighing more (157). Meanwhile, rates of obesity and demands on the health service continue to climb. Whilst health services have adapted to obesity as it has become the ‘normal’ state, obesity is still perceived as being ‘abnormal’ and health services continue to deliver ‘normal’ services focusing on treatment. This leads to a frustrating cycle of futility for health services which results in increased stigma and discrimination and an assumption that people don’t lose weight due to a lack of self-control.
In other domains, prevention delivered by health services is part of normal practice, including falls, infection and pressure injury prevention. These are all issues which can potentially incur great cost to health services and so through policy and national standards have clear clinical pathways designed to prevent the problem occurring. However, obesity is more complex than any of these issues so the goal should not be to provide more of the same but to consider how the whole system can do things differently and more efficiently.

At the moment, feedback does not occur across the system as focus moves from the population at a planning level to the individual at a clinical level. Enhancing feedback and bringing in all perspectives – including those of consumers – will help evolve models of care which focus on factors which contribute to obesity. This will need to include moving past the narrow definition of disease and beyond the medical model.

Health is a combination of an individual’s behaviours as well as circumstances and environment. A biomedical approach to obesity points towards the primary cause being an energy imbalance, i.e. the individual eats more than they use. This very much focuses on individual choice and responsibility. The socio-ecological model removes the emphasis from individual responsibility and considers economic, cultural and political determinants, which all play a part in influencing the individual. Each of these models on its own does not capture the full complexity of obesity, which is not only influenced by a range of issues or characteristics, but the interconnectedness between those factors. A move to a prevention focus may present a large shift in philosophical approach for many health services currently driven by symptom-based targets.
Changing the principle on which interventions are based as opposed to just the concrete targets is an important element of introducing change in a complex adaptive system (124). What is important to recognise, is that perceptions are different depending on where someone sits within an organisation, that a person’s role will have an influence on their perceptions of what we can or can’t do to incorporate obesity prevention into healthcare. The reality of working with individuals on a one-to-one basis in a healthcare setting provides a different perspective to the population health view of obesity. What the clinicians are seeing firsthand is that many people accessing health services have not been reached by population health prevention initiatives and they often have multiple physical, social and psychological issues reinforcing their obesity, whilst they are also trying to manage complex health issues. These people cannot be effectively helped by population focused education but need more individualised care.

Health services are faced with numerous competing priorities and can be vulnerable to change fatigue as they struggle to keep up with any number of pressures including local organisational change, changes to funding models, new techniques and technologies, waiting lists and targets. It is important to understand the impact of these and other competing demands (32), as well as the views of the patients, as a lack of support from the consumers of the service will risk the failure of a change in practice, even in the presence of strong evidence (114). In looking at what and when prevention activities should be incorporated into the health system, it is also important to assess the readiness to change of various levels of the system – the national and local environment, the organisations delivering care, and the components of the organisations at unit level through to an individual practitioner level (221).
The Benefits of Change

The state of an individual’s health is determined by their circumstances and environment, far more than by the health services they can access (222). Health services are designed around a linear medical model approach to disease treatment, which is not appropriate to support the complexities of behaviour change required to effectively support people who have developed health problems linked to their weight (143). Health professionals are often able to recognise the issues that are preventing their patients from improving their wellbeing but are not able to address the root causes which are often the social, behavioural and economic determinants of health. This can be due to a number of factors including restrictive service access criteria, professional scope of practice and restrictive performance indicators which focus on quantifiable outcomes rather than process. By moving away from a paradigm which places choice and individual responsibility at the centre of all decisions to one which focuses on a person’s overall experience of wellbeing, health services can play a more proactive and successful role in the prevention of obesity.

Obesity is described as a problem of epidemic proportions for society, but obesity policy continues to frame obesity as a disease, with responsibility for achieving mastery over choice sitting with the individual. People with obesity, overall, know that they are overweight. They may not understand the full extent of the impact on their health, but they will be aware of the stigma and discrimination that occurs because of the way they look. Telling someone they are overweight won’t help stop them being overweight and may make it worse. Health is often judged by body size with slim being seen as ‘normal and healthy’. Consequently, people in larger bodies are judged as not taking care of their health. Reminding them that they are overweight or pointing out when they fail to lose weight may
lead to an internalised sense of failure and shame that people with obesity will experience (173). Focusing on weight loss as a solution may reinforce the idea that all overweight people are a burden on society and may shift the emphasis away from overall health (155).

The Foresight obesity model depicts over 100 drivers and 300 interconnections which are having an impact on increasing rates of obesity (170). The overwhelming scale of the issue should not be an excuse for inaction. Neither should it be used by health services as an excuse to only address the extreme ends of the issues with medicalised approaches such as bariatric surgery. Obesity as a risk factor needs a prevention approach whilst obesity as a disease needs a treatment approach. There is a need to look at a shared message, rather than one trying to overrule the other, as well as striking a balance between respecting diversity in body size and supporting people who have obesity and disease (217). We also need to accept that society has changed and accept that a huge part of this change is the environmental and social influences on weight which may help shift from framing obesity as being the individual’s fault (192). This shift has the potential to reduce the impact of obesity at a population level, not just by reframing how we view obesity as an issue but shifting our focus onto a collective responsibility where change is achieved at a collective level.

10.4 Recommendations for the ACT health system

At the core of systems change is the interconnections between previously siloed groups to support the emergence of new ideas and ways of working (119). Getting sub-systems to talk to each other and to connect so that they function as one system will not only improve the quality of the service delivered to the consumer but will also offer value to the provider by potentially reducing costs and demand for services.
The ACT initiated a policy response to obesity by focusing initially on primary prevention at a population level. This consisted of focusing programme delivery within the food environment, schools and workplaces and taking into consideration the impact of urban planning and social inclusion (15). This was followed by the development of a treatment-focused obesity management service sitting within the health services (18). However, what has not been developed is a response which supports clinical health services to deliver prevention across the spectrum of care.

This research has highlighted that what is missing within the system is feedback between the different areas. Feedback is an essential part of a systems approach, particularly in influencing sustained change (97). The recommended next step in developing the ACT health obesity prevention system is the facilitation of an iterative series of dialogues between the macro, meso and micro levels of the system to begin to identify and implement locally appropriate, concrete solutions that could be embedded into the system. This will highlight the practical blockages that have resulted from the differing perspectives and open up the possibility of applying an approach beyond that of the traditional medical model to the issues facing health services as a result of increasing rates of obesity. A systems approach will provide practical tools to facilitate this process. For example, bringing together representatives from a policy and a clinical delivery space, as well as consumers within the system to develop a causal loop diagram, will not just lay out what happens within the system, but will also identify the linkages and gaps within the relationships and dynamics impacting on the system in order to identify leverage points (223) (98).
There are also some practical changes which could be made to enhance the experience of people with obesity who are accessing ACT services. This change in approach should not be focused on just doing things differently for people who have a visibly higher weight, as this can only add to the possibility of their encounter with health services being stigmatising. Instead, ACT health services need to consider explicitly recognising and addressing the weight bias that is carried by many individuals, including health service staff, which is reinforced by the way that the current policy emphasises choice and individual responsibility. Practical strategies to address this could include providing training for health professionals to understand and combat weight stigma, including developing people’s knowledge of the complexities of obesity. There is also a role for health services to advocate for public health messages to frame a message of health and wellbeing in relation to weight and to take the word ‘choice’ out of the public health dialogue (224, 225).

10.5 Conclusion

Obesity is framed as a negative state, a problem to be fixed. But this leads to the question, at what point does weight become a problem? Is it at an arbitrary measurement such as BMI or not until associated health issues arise? Should it only be addressed when the individual says it’s a problem or is there an objective point such as when ‘normal’ practice can’t occur?

The dichotomy of obesity as a disease simplifies complex issues to a simple problem with two extremes – one of blame (it is not a disease therefore the person has to fix the problem themselves) and one of biology (it is a disease therefore there needs to be a treatment and ideally a cure) (204). Health systems are inherently risk-averse when it comes to a systems
approach, wanting to control all the variables in order to ‘do no harm’. But we need to start somewhere and wherever we start, we need to be prepared to be adaptive. The complexity of obesity does represent a challenge for health services but we need to move away from viewing obesity as an illness or disease to be cured (119). The medical model works for disease. The chronic disease model works for chronic disease. It is time to evolve to a third approach that works in parallel with these to address obesity. This approach will need to be non-linear and will need to recognise that for each individual there is no set way of addressing the factors that have contributed to weight gain to the point of developing health issues. Services need to be flexible enough to work through the multitude of elements reinforcing or contributing to obesity and to work out what each person’s ideal outcomes would be beyond weight loss.

Above all, as a society we need to move away from a paradigm of blame which defines people by their weight, to stop attributing a range of negative and unrelated characteristics to a number on a scale. Obesity is not a choice nor is it a sign of failure or weakness (224, 225). It is a measure of size which for each individual is the result of a complex combination of many factors and influences. What we can do instead is focus on a paradigm of holistic wellbeing and treat everyone with respect and kindness as they work out what wellbeing might look like for them.

10.6 Strengths and Limitations

This research employed a qualitative approach, specifically using grounded theory to avoid introducing a preconceived idea or hypothesis but to instead approach the topics of interest with an open mind. Grounded theory requires a methodical approach but also facilitates an
intuitive approach to the data, which can elucidate innovative conclusions in relation to the research questions (22, 134, 135). As with all research methods, there are limitations. Grounded theory does not produce generalisable results and limits the transferability of the finding; it cannot be assumed that the processes observed in one setting will also be observed in another setting (135). However, the development of substantive theory, when considered within the broader literature, can add to the body of knowledge, which is relevant to an issue of complexity such as obesity as there is no finite right or wrong approach.

With any qualitative research, and particularly with grounded theory, it is important to consider the role of ‘self’ (22). In this research, the researcher is a part of the system being studied and as a health professional, will inevitably have personal views on the role of health services in the prevention of obesity. Developing the research questions following a review of the literature and interviews with academic experts was one technique used to mitigate the risk of bias. The use of a secondary researcher reviewing the primary researcher’s coding was also used as a tool to minimise any potential bias.

The use of a case study also has its advantages and disadvantages. Case studies are useful in situations where the topic is complex but there is a benefit in retaining a real-world perspective (132). The ACT was chosen as the profile of its health services and of its population have similarities to many other populations across Australia. The researcher is based within the health service, providing an opportunity to access staff as participants and policy information as contextual information. However, being part of the system meant that there was also a risk that participants may modify what they said to a potential colleague.
As with the use of grounded theory, caution needs to be employed in considering how results may be generalised or transferred (226).

The literature review (Chapter 3) focussed on evidence obtained within high income countries. The research was conducted within an Australian health system. Both elements may impact on the ability to generalise the findings to different health service contexts. However, it should also be noted that the findings relating to the impact of perceptions on the role of health services have also been identified in research conducted in high-income countries with universal healthcare systems (3, 4) as described in the Preface. In the course of conducting this research, I have been asked ‘So what is the solution?’ Obesity is a topic that often elicits an emotive response, because some people hold firmly held views regarding the causes, consequences and cures for a condition that is visible to all. For others, a personal experience of being obese can cause people to express embarrassment about their own weight journey and prompt them to apologise for contributing to what is so often viewed as a societal scourge. The major limitation of this research therefore is maybe that there isn’t a definitive solution or an easy answer to the question of what the role of health services might be. While there may be no easy or quick fix, there is an opportunity to reframe how we see the problem, not to ignore the real-world impact of obesity but to adopt a more compassionate and benevolent view of the impact it has on individuals and to adopt an approach where obesity is everybody’s responsibility.
10.7 Implications for Future Research

The overall finding of this research was that the way we frame obesity (within health services) as a matter of choice, and deliver services within a medical disease model, prevents health services from playing an effective role in the prevention of obesity. This builds on previous research which found a lack of dissonance across the health system in terms of the perceptions of obesity (3) and which highlighted blame as being at the centre of a lack of clarity around obesity management versus obesity prevention, whilst also highlighting the limitations of the medical management discourse (4). There is now an opportunity for research which tests ways to reframe the obesity paradigm within health service settings. This includes challenging the obesity discourse which currently focuses on the dichotomy of obesity as a disease, thereby reinforcing biases and stigma. The normalising of obesity, and the lack of quantifiable data to fully understand the impact of the normalising process also presents a research opportunity to investigate ways to improve feedback across the health system so that the experience of clinicians and consumers is reflected in decisions made in relation to obesity policy.
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Satisfying Low Risk Criteria

The Low Risk Sub-Committee (LRSC) process is designed to provide an expedited review and approval option for low risk applications. Where a proposal requires consideration or approval of documents other than the Low Risk Application Form, associated patient information and consent forms, surveys etc. the proposal should be submitted to the main Human Research Ethics Committee (HREC).

To satisfy the Low Risk criteria, the research must comply with the definition provided by the National Statement on Ethical Conduct in Human Research, page 16:

The expression ‘low risk research’ describes research in which the only foreseeable risk is one of discomfort. Research in which the risk for participants is more serious than discomfort is not low risk.

In compliance with the National Statement on Ethical Conduct in Human Research, 5.1.21, if the LRSC considers a proposal involves more than low risk, the LRSC will refer the proposal to the HREC.

If in the opinion of the LRSC more technical expertise is required to assess the proposal than is available to the LRSC, then the LRSC may refer the matter to HREC and its sub-committees.

Do you consider that your proposal meets the criteria above? Yes ☒ No ☐
The following questions will help to determine the need for a low risk ethics application

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<td>Is the project designed only to evaluate, audit, quality assure or improve services provided by ACT Health?</td>
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<td>Will the results of the project only be reported and used within ACT Health or published in a journal or resource not requiring ethical approval for publication?</td>
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If you answered **YES** to all four questions your project is considered quality improvement/quality assurance and **does not** require ethical approval.

Note: these questions do not apply to student projects. Student projects are considered part of research training and as such ethical approval is required.

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The following questions will help to determine what to include with the low risk ethics application

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<td>Does your research involve survey tools or interview questions?</td>
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<tr>
<td>Does your research involve any form of contact with participants?</td>
<td>☐</td>
<td>✗</td>
</tr>
<tr>
<td>• If yes, please provide participant information and consent forms</td>
<td>☐</td>
<td>✗</td>
</tr>
<tr>
<td>Does your research require a waiver of consent?</td>
<td>☐</td>
<td>✗</td>
</tr>
<tr>
<td>• If yes, the waiver request will be forwarded to the Human Research Ethics Committee for consideration. Please complete the waiver of consent request template and submit with this application</td>
<td>☐</td>
<td>✗</td>
</tr>
</tbody>
</table>
Section A – Statements and Signatures Required

*Please ensure you have appropriate signatures in either A1 (if you are a student) or A2 (if you are not a student).*

### A.1 – Student Projects

The student researcher and supervisor have read the NHMRC *National Statement on Ethical Conduct in Human Research 2007 (National Statement)* and the *Code for the Responsible Conduct of Research 2007*

The student researcher and supervisor believe that the proposed study complies with the National Statement definition and guidelines for Low Risk research (NS 5.2)

The student researcher and supervisor are aware of their responsibilities in relation to privacy and confidentiality in respect to individuals' medical records and personal information

#### Student

<table>
<thead>
<tr>
<th>Name: Claire Pearce</th>
<th>University/Institution: University of Sydney, School of Public Health</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Course: Doctor of Philosophy</th>
<th>Year of Course: 1</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Signature: [Signature]</th>
<th>Date: 27.11.15</th>
</tr>
</thead>
</table>

#### Student Supervisor

<table>
<thead>
<tr>
<th>Name: Prof Andrew Wilson</th>
<th>University/Institution: University of Sydney</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Discipline/Department: School of Public Health</th>
<th>Position/Job Title: Director, Menzies Centre for Health Policy</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Signature: [Signature]</th>
<th>Date: 27.11.15</th>
</tr>
</thead>
</table>
### A.2 – Non-Student Projects

The principal investigator at the sites covered by this application has read the NHMRC *National Statement on Ethical Conduct in Human Research 2007* (National Statement) and the *Code for the Responsible Conduct of Research 2007*.

The principal investigator is aware of their responsibilities in relation to privacy and confidentiality in respect to individuals’ medical records and personal information.

#### Principal Investigator

<table>
<thead>
<tr>
<th>Name:</th>
<th>University/Institution:</th>
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<table>
<thead>
<tr>
<th>Discipline/Department:</th>
<th>Position/Job Title:</th>
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</table>

<table>
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<tr>
<th>Signature:</th>
<th>Date:</th>
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</table>

For all non-student projects involving ACT Health patients, human or other resources, records, information or facilities, and for which the principal investigator is not the appropriate Head of Department or Division, a signature is required below.

#### ACT Health Head of Department/Division

I agree that this low risk research project may be undertaken in my department or division and the researcher(s) may approach patients, and/or utilise staff resources, records or facilities as specified in this application.

<table>
<thead>
<tr>
<th>Name: Associate Professor Paul Dugdale</th>
<th>Department/Division: Chronic Disease Management</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Position/Job Title: Director</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Signature: [REDACTION]</th>
<th>Date: 27.11.15</th>
</tr>
</thead>
</table>
Section B – About the Research Project

This section contains a number of questions where only yes/no answers are required. You may wish to include additional comments to save the committee coming back to you for further information.

### B.1 Project Type
- Single-centre [x] Multi-centre [ ]

### B.2 Project Title (State the full title of the project)
The role of non-admitted health services in the prevention of adult overweight and obesity: a systems approach to supporting the translation of evidence into practice.

### B.2a Short Title (State the short title of the project if applicable)
The role of non-admitted health services in the prevention of adult overweight and obesity.

### B.3 Research Personnel N.S 1.1(e)

#### B.3a Principal Investigator at the sites covered by this application (includes student investigators)

<table>
<thead>
<tr>
<th>Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Claire Pearce</td>
</tr>
</tbody>
</table>
| Position | 1. PhD Candidate  
          2. Senior Project Officer  |
| Department | 1. Menzies Centre for Health Policy  
              2. Chronic Disease Management Unit |
| Organisation | 1. University of Sydney  
                  2. ACT Health |
| Mailing Address | 123 Carruthers St, Curtin ACT 2605 |
| Phone (Business) | 02 6207 9290 |
| Phone (Mobile) | REDACTION |
| Email | Claire.pearce@act.gov.au |
| Qualifications, Skills, Experience | Ms Pearce has received formal training in research methods at an undergraduate level (Bachelor of Applied Science Occupational Therapy) and a postgraduate level (Master of Science, Health Sciences). Her Master's research project involved analysing the clinical reasoning of occupational therapists which included writing a |
null hypothesis; designing a methodology to explore the hypothesis; statistical analysis and documenting the results in the context of the literature. She received a distinction (highest award) for this piece of work.

Ms Pearce works as a Senior Project Officer undertaking service evaluation and redesign with the ACT Health Chronic Disease Management Unit. Her projects have included designing and conducting semi-structured interviews and focus groups with staff and consumers. In 2010/2011 she was an associate investigator on a project which received a $108,000 grant from Health Workforce Australia. This project employed both qualitative and quantitative methodology to investigate a new workforce initiative to support the discharge of older adults from the acute setting.

<table>
<thead>
<tr>
<th>Role in Research Project</th>
<th>As the principal researcher, Ms Pearce will conduct the research as fulfillment of the degree of Doctor of Philosophy (Medicine). This will include research design; conducting interviews; analysing data and report writing.</th>
</tr>
</thead>
</table>

Is this person the nominated contact person for this project?  
Yes ☑ No □

Is the Principal Investigator a student?  
Yes ☑ No □

If yes, supervisor must be listed at section A.1

B.3b Co-investigators at the sites covered by this application

*Please list names, positions and departments of all co-investigators at the sites covered by this application.*

Professor Andrew Wilson, Menzies Centre for Health Policy, University of Sydney

Associate Professor Sonia Wutzke, Deputy Director, The Australian Prevention Partnership Centre, Sax Institute

B.3c Other Personnel

How many other personnel are involved in this project? Please provide details (for example study nurses, research assistants)

B.3d Nominated Contact for Project *(not required if the Principal Investigator is the contact person)*
<table>
<thead>
<tr>
<th>Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
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<tr>
<td>Position</td>
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<td>Department</td>
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<td>Organisation</td>
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<td>Mailing Address</td>
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<td>Phone (Business)</td>
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<tr>
<td>Phone (Mobile)</td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td></td>
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</tbody>
</table>

### B.4 Sites Involved in the Research Project

**B.4a Please list all sites for which ethical and scientific approval is being sought from this HREC. List all sites within the ACT (e.g. university, private clinic, ACT Health) involved in the project**

| ACT Health |  |

**B.4b In how many other sites in Australia or internationally will the project be undertaken?**

Interviews regarding prevention interventions to be undertaken with experts based within NSW

| 1 |  |

**B.4c Previous ethical review N.S 5.3 Is this project being submitted to (or has it previously been submitted to) other ethical review bodies?**

To be submitted to University of Sydney ethics committee to satisfy requirements of PhD candidature following approval by ACT Health HREC

| Yes ❑ No ❑ |  |

**B.4d Peer review N.S 1.2 has the project been through a formal peer review process? (if yes, please provide details)**

| Yes ❑ No ❑ |  |
B.5 Funding N.S 1.1(f) What is the source of funds available to conduct this project? 
*Provide details in the table below*

<table>
<thead>
<tr>
<th>Type of Funding</th>
<th>Name of funding organisation/source of funding</th>
<th>Amount $</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD Scholarship</td>
<td>The Australian Prevention Partnership Centre, Sax Institute</td>
<td>$30,000/ annum</td>
</tr>
<tr>
<td>Financial support to transcribe interviews</td>
<td>The Australian Prevention Partnership Centre, Sax Institute</td>
<td>To be determined</td>
</tr>
</tbody>
</table>

B.6 Conflicts of Interest N.S 5.4: Are any ‘conflict of interest’ issues likely to arise in relation to this research?  
**Yes ☐ No ☒**

B.7 Publications and Dissemination of results N.S 1.3 How is it intended to disseminate the results of the research? For example a report, publication or thesis.

Outcomes of the research will be disseminated by thesis, journal articles and conference papers.

B.8 Anticipated Start and End Dates

<table>
<thead>
<tr>
<th>B.8a Anticipated Start Date</th>
<th>February 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.8b Anticipated End Date</td>
<td>February 2018</td>
</tr>
</tbody>
</table>
The prevalence of chronic disease is on the rise. In Australia, it is the major cause of death and disability. Half of all Australians have at least one chronic disease with many managing more than one chronic illness\(^1\). The cost to the health system is significant with more than a third of the Australian health budget attributed to chronic disease management\(^2\). Interventions developed to prevent chronic disease can improve quality of life and productivity, reduce morbidity and mortality and reduce demand for health care\(^3\). However, despite evidence available on effective interventions, prevention activity is not routinely integrated into health services, even where it is considered appropriate\(^4\).

A major risk factor for many chronic diseases is being overweight or obese. Being overweight or obese can impede the management of chronic conditions and is the second highest contributor to burden of disease. In Australia, rates are increasing across all age and socioeconomic groups. Approximately two thirds of adults and a quarter of children are overweight or obese\(^5\). As well as the treatment of weight related conditions, the health system has a key role to play in obesity and overweight prevention. The prevention role of general practice and to a degree, primary healthcare more broadly has been well described\(^6,7\). The role of other aspects of the health service has been less well described and consequently there is not clear direction for the incorporation of prevention into the broader health system.

The aim of this research is to examine the role health services have in delivering chronic disease prevention focused care and to identify the barriers and enablers to incorporating a prevention focus into clinical care. The area being used as a focal point is the prevention of overweight and obesity by non-admitted health services. A non-admitted service is a unit or organisational arrangement under which a hospital provides services for individuals not admitted to hospital. It includes all arrangements made to deliver healthcare to non-admitted patients irrespective of location or funding source. This includes non-admitted emergency department contact, outpatient care and services such as community nursing and allied health and diagnostic procedures. There are approximately 46 million non-admitted patient occasions of care in Australia per year\(^8\).

The first phase of this project will involve a literature review and interviews with experts to examine the current evidence for obesity and overweight prevention in the health services system, including barriers and enablers to implementation. The experts will sit outside of ACT Health and therefore ethics approval will be sought from the University of Sydney HREC for this phase of the project.
The second phase will involve utilising ACT Health as a case study and it is for this phase of the project that ethical approval is being sought. It is proposed that interviews will be conducted with key stakeholders including policy makers, clinical managers, clinicians and consumers with the aim of eliciting how preventive care can be embedded in health services; how it is perceived by key stakeholders and how these perceptions enable or block the uptake of prevention activity. All information collected will be examined within the theoretical framework of complex adaptive systems in order to develop a model/framework to support the increased uptake of chronic disease prevention within the health system.

5. National Health and Medical Research Council, Clinical practice guidelines for the management of overweight and obesity in adults, adolescents and children in Australia, National Health and Medical Research Council, Editor. 2013: Melbourne.

B.9b Research Aims and Hypothesis Briefly state the aims, research objectives, key research questions and/or the hypothesis to be tested, where appropriate.

The main aim of this project is to examine the role of non-admitted health services in the prevention of overweight and obesity in the adult population and explore and describe the key barriers and enablers to incorporating obesity prevention into non-admitted health services for adults.

Key research questions to be examined via the literature review and experts interviews are:

- What is the evidence for incorporating the prevention of overweight and obesity into non-admitted health services for the adult population?
- Who are the key groups who would most benefit from overweight and obesity prevention interventions being delivered via non-admitted health services?

The key research questions to be explored through the case study interviews are:

- What do health service planners, clinicians and consumers view as the role of health services in the prevention of overweight and obesity?
- What are the key barriers and enablers to incorporating the prevention of overweight and obesity into non-admitted health services for the adult population?
- What are the attitudes and beliefs of staff and consumers towards incorporating obesity prevention into health services?
B.9c Research methodology NS 1.1(a-d) Provide details of the proposed method to achieve the aims, including project design, data collection techniques, data to be collected, number of participants, tasks participants will be asked to complete, recruitment of participants and analysis of results. Provide a justification of the proposed sample size, including details of statistical power of the sample, where appropriate.

This research will primarily employ qualitative methodology to investigate both the organisational factors influencing the uptake of prevention as well as the influence of staff and consumer attitudes and beliefs. Empirical material collected by the use of a case study will undergo thematic analysis. This information will be further analysed within the context of quantitative data obtained from national and local data sets describing the prevalence and incidence of obesity both generally and with reference to specific population subsets.

The sample size for the case study will be determined by a mix of organisational factors specific to ACT Health and saturation sampling. Participants will be identified as follows:

a. Policy: determined by organisational structure i.e. there are two key ACT Health units responsible for setting the policy and strategic direction in relation to obesity prevention so face-to-face semi-structured interviews will be conducted with the two unit directors and the policy officer within each unit responsible for this area. The questions will focus on how health services might support obesity prevention within the broader system and a discussion of barriers and enablers.

b. Clinical Service Planning: Face-to-face semi-structured interviews will be held with Executive Directors of 4-5 clinical divisions. This will ensure that the study includes those divisions who deliver services to populations most at risk of developing obesity. The next phase of this sampling will involve face-to-face semi-structured interviews with 6-8 clinical managers as identified by the executive directors, again to cover a range of at risk populations. The questions will focus on ascertaining if and how obesity prevention services are currently being delivered; if the informants believe prevention should be incorporated into service delivery and what the issues are for clinical services in relation to obesity prevention.

c. Clinical Service Delivery: Semi-structured focus groups (face-to-face) will be held with the staff of 2-3 services who are or who plan to incorporate obesity prevention and 2-3 services who have not considered prevention but who service at risk groups. These services will be identified with the assistance of the clinical managers. Final numbers may alter depending on the point of saturation. Focus groups are being utilised as an effective way to reach a number of staff members and increase reassurance to staff that their responses will be merged to ensure anonymity.
d. Consumers: it is important that the consumer perspective is incorporated into a systems analysis of health service delivery. Consumers will be invited to participate in a semi-structured focus group (face-to-face). 2 groups will be held with approximately 8-10 participants in each group. The questions will explore the concept of obesity prevention and its role within health services generally rather than specifically targeting individual experiences of prevention within the health service.

The potential consumers will be identified in consultation with the clinical service planning and delivery informants. Current patients of those services taking place in the clinical implementation interviews will be contacted by letter and invited to attend a focus group.

An outline of questions is attached. Please note, that these questions are indicative of the topics to be covered as the specific questions will evolve as information emerges through the interview process.

**B.9d Likely benefits of the project for the participants, institution and/or community N.S 2.1**

There is an emerging base of evidence in relation to how chronic disease prevention programmes, including obesity prevention, should be formulated and delivered across a number of different settings and populations. However, the overall role of health services has not been described and therefore interventions in this setting have tended to be implemented in silos rather than incorporated at a system level. The complexity of obesity and the associated health problems provides a significant challenge for health service planning and delivery. Health services find it particularly challenging to incorporate prevention into an illness focused model of care. This research provides participants with the opportunity to influence the way services may evolve and to contribute to the development of a systems model / framework which supports increased prevention interventions by addressing organisational and attitudinal barriers.

**B.9.e Actual or potential risk associated with the project N.S 2.1**

The main risk is inconvenience to the participants. This will be minimised through the following technique:

- Undertaking semi structured interviews to help focus questions and therefore reduce length of interviews
- Undertaking focus groups in existing team meeting time to avoid taking staff away from clinical duties
- Reimbursement of travel costs for consumers
- Providing clear participant information and consent forms
- Giving all potential participants opt out options
<table>
<thead>
<tr>
<th>B.10 Consent N.S 2.2-2.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.10a Will informed consent be obtained from participants?</td>
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</table>

<table>
<thead>
<tr>
<th>B.11 Data and Privacy N.S 3.2</th>
</tr>
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<tbody>
<tr>
<td>B.11a Is there a requirement for the project to collect, use or disclose individually identifiable or re-identifiable data of a personal nature (including personal health information) about participants from:</td>
</tr>
<tr>
<td>Commonwealth departments or agencies</td>
</tr>
<tr>
<td>State/Territory departments or agencies (including ACT Health)</td>
</tr>
<tr>
<td>Private Sector agencies</td>
</tr>
</tbody>
</table>

**B.11b Storage and security of data** *(detail secure data management plan including protocols for maintaining privacy and confidentiality). Provide this information for each site which requires ethical and scientific approval from this HREC.*

All interviews will be audio recorded then transcribed. All data will be de-identified by using codes instead of names and removing any potentially identifying text from transcripts. Data will be stored on the password protected computer of the researcher, on the ACT Health secure server. Recordings will be deleted as soon as practicable after transcription.

Hardcopies of transcriptions will remain in the possession of the principal investigator, stored in a locked filing cabinet in a secure ACT Health office. Following completion of the study, data will be stored on the ACT Health secure server for seven years in accordance with ACT Government Records Disposal Schedule.

Please return the completed form via email to acthealth-hrec@act.gov.au
HUMAN RESEARCH ETHICS COMMITTEE FORM

Please Note:

This form was created via the University’s online system (IRMA) and the information provided is recorded in the University’s research office database.

This information is used to assess the ethics submission under the National Health and Medical Research Council’s (NHMRCs) National Statement on Ethical Conduct in Human Research (2007) by the University Ethics Committee and its expert advisers, including the RPAH Clinical Trials Subcommittee.

Sign off by researchers is provided online in IRMA and will not be displayed in this document.

ADMINISTRATIVE DETAILS

Title: The role of non-admitted health services in the prevention of adult overweight and obesity: a systems approach to supporting the translation of evidence into practice.

Chief Investigator: Prof Andrew Wilson

Primary Faculty/Department: Medicine; Faculty of Medicine and Health

Investigators: Wilson Andrew; Wutzke Sonia; Rychetnik Lucie; Pearce Claire;

Grants linked:

External Authorities: ACT Health Human Research Ethics Committee

Additional Information:

This project has been approved by the ACT Health Human Research Ethics committee. The approved application has been attached but other documents also approved in that process, such as participant information sheets have not been included. Approval is being sought from the University committee to undertake interviews with non-ACT based academic experts, the results of which may be included in publications. Documents pertaining to this part of the project have been attached.

The aim of this research is to examine the role health services have in delivering chronic disease prevention focused care and to identify the barriers and enablers to incorporating a prevention focus into clinical care. The area being used as a focal point is the prevention of overweight and obesity by non-admitted health services. A non-admitted service is a unit or organisational arrangement under which a hospital provides services for individuals not admitted to hospital.

QUESTIONNAIRE

1 - Welcome to the University of Sydney’s Human Ethics Application Questionnaire. Please be aware that there is a limit of fifteen minutes to complete each individual
question. If you exceed this time then your answer may not be saved by the system. We recommend that you prepare long answers outside of IRMA before pasting it back into the report questionnaire and/or save your answers regularly. If you choose to edit a previous question, your responses to subsequent questions will be deleted. The restore button can be used to refill your subsequent answers if this happens. For further information on the application procedure, please consult our website or email the Human Ethics team at ro.humanethics@sydney.edu.au. If you experience any technical difficulties, please do not hesitate to contact Research Support using the details below: T +61 2 8627 8183E research.support@sydney.edu.au

Continue

2 - SECTION A Section A is designed to distinguish between staff and student projects. In addition, this Section also seeks to identify projects that have been approved by other ethics committees. Is this project a University of Sydney student project ONLY (i.e. ethics application restricted to the activities of the student research project)?

Yes

4 - Select appropriate student classification:

PhD

3 - Indicate whether this project has been or will be submitted to any other ethics committees

Yes

6 - Is the responsible ethics committee Australian?

Yes

8 - Is the responsible ethics committee registered with the National Health and Medical Research Council (NHMRC)?

Yes

9 - Under the University of Sydney Procedures you do not require ethics approval from the University HREC if:- your study has already been approved by an ethics committee registered with the NHMRC and that committee has stated in writing its willingness to be responsible for ALL sites at which the research is to be conducted. Or - your study has already been approved by an overseas ethics committee AND there is no funding, or the funding is being administered by another institution. Please clarify below why you are applying for ethics approval from the University of Sydney HREC. (If you do not wish to continue please contact the Ethics Office on ro.humanethics@sydney.edu.au to unsubmit your application).

The ACT Health Human Research Ethics Committee has approved the main part of the study which will involve interviewing ACT Health staff and patients. The initial phase of the study involves interviewing experts outside of the ACT in order to develop key themes to be incorporated into the ACT based interviews. The information from these initial interviews will be incorporated into the study report and publications. Therefore approval is sought from the University in relation to this component of the study i.e. interviewing experts within the field of obesity prevention not based in the ACT.

5 - SECTION B Section B is designed to determine whether your study falls within the National Statement’s definition of low or negligible risk. Throughout this section, you may be asked specific additional questions where you indicate that your study involves particular participant and/or project types. Please note that the option ‘Possible Recruitment’ with reference to specific participant populations indicates that these people MAY be recruited into your study, but are not the specific population of interest. If this population is the focus of your study, you should select ‘Yes’. Please answer the following questions:

Does your research involve women who are pregnant and the human foetus?

No

Does your study involve children and/or young people (i.e. younger than 18 years)?

No

Does your study involve people in existing dependent or unequal relationships with the researcher(s)?
No

29 - Does your research involve people with a cognitive impairment, an intellectual disability or a mental illness?
No

33 - Does your research involve people highly dependent on medical care who may be unable to give consent?
No

38 - Does your study have the potential to discover illegal activity by participants or others? This includes research intending to expose illegal activity, as well as research not specifically designed to, but likely to discover, illegal activity.
No

41 - Does your research involve Aboriginal and/or Torres Strait Islander peoples?
No

47 - Does your research involve CALD ( Culturally and Linguistically Diverse) people?
No

63 - Does your research involve travel overseas?
No

64 - Is your study likely to cause or elicit distress in participants due to its subject matter, the procedures involved, information that might be revealed about the participant or related persons, or in some other way?
No

78 - Does your study involve research that could jeopardise a participant's employment?
No

79 - Is your proposed research a clinical trial? A clinical trial is a form of research designed to find out the effects of an intervention, including a treatment or diagnostic procedure. A clinical trial can involve testing a drug, a surgical procedure, other therapeutic procedures and devices, a preventive procedure, or a diagnostic device or procedure.
No

84 - Does your study involve the use of human tissue?
No

138 - Does your study involve human genetics or human stem cells?
No

185 - Does your study involve limited disclosure involving active concealment and/or planned deception?
No

186 - Does your study involve research that poses a risk to the physical or emotional safety or welfare of a University of Sydney student researcher (e.g. honours student or postgraduate student)? If you are a student and your research takes place off-campus a completion of a safety protocol may be necessary.
No

192 - Does your research involve any of the following: Collection of biological samples (e.g. blood, saliva, bodily fluids), Physical screening (e.g. blood pressure, cholesterol, physical fitness, MRI scans), Physical exertion? (i.e. physical activity, exercise).
No
200 - Does the research ONLY involve existing collections of data or records about human beings (collected with appropriate ethical approval)?

No

201 - Is there a foreseeable risk of more than ‘discomfort’? For a useful description of the differences between harm, discomfort and inconvenience please refer to the National Statement on Ethical Conduct in Human Research, Chapter 2.1

No

196 - SECTION C The questions in Section C are designed to determine whether there are any conflicts of interests which may compromise the research process. Are any "conflict of interest" issues likely to arise in relation to this research?

No

209 - Do the researchers have any affiliation with, or financial involvement in, any organisation or entity with direct or indirect interests in the subject matter or materials of this research? (Note that such benefits must be declared in the Participant Information Statement)

Yes

212 - Please provide details of this financial affiliation or involvement

Claire Pearce (PhD student) receives a scholarship from The Australian Prevention Partnership Centre (TAPPC). The other 3 investigators are employees of the centre. The research is being done as part of TAPPC portfolio of research.

211 - Do the researchers expect to obtain any direct or indirect financial or other benefits from conducting this research? (Note that such benefits must be declared in the Participant Information Statement)

No

213 - Have conditions already been imposed OR are likely to be imposed in the future, upon the use (e.g. publication), or ownership of the results (e.g. scientific presentations) or materials (e.g. audio-recordings), by any party other than the listed researchers?

No

215 - SECTION D The questions in Section D are specifically directed at the consent process. Describe how you will identify and select potential participants for recruitment into the study. You should include information about how you will obtain contact details for potential participants.

Interviews will be requested with academics with expertise in the prevention of obesity. They are all known to the one or all of the supervisors of the project. They will be contacted via email by one of the project supervisors to request their participation in an interview. Participation will be on a voluntary basis. Once consent has been given, they will be contacted to arrange a suitable time and place for interview and provided with a participant information sheet.

Recruitment of participants in the ACT has received approval from the ACT Health Human Research Ethics. Please see attached approved application.

217 - Describe how and where initial contact will be made with potential participants and how you will avoid real or perceived coercion. Copies of all relevant correspondence (e.g. email, letter of introduction, covering letter, circular/flyer etc.) need to be uploaded with your application. If you are using email addresses please outline how their use will not be in breach of privacy or spam legislation.

Initial contact will be made by the research supervisors, asking if they would be willing to participate in the project (see attached email example). The contact details will already be known to the supervisors. If they agree, their contact details will be shared with the PhD student who will then send through the participant information sheet (attached).

218 - If a participant, or person on behalf of a participant, chooses to withdraw from the research, what specific consequences should they be made aware of, prior to giving consent? These details should be included in the Participant Information Statement.
There are no consequences to withdrawing from the research. If withdrawal occurs after an interview has taken place, all records of the interview will be destroyed and the results will not be included in any reports or publications.

219 - Will participants receive any reimbursement of out-of-pocket expenses, or financial or other "rewards" as a result of participation?
No

220 - How will consent be obtained (more than one may apply)
Written

222 - Please clarify your response to the question above and justify with reference to the National Statement (e.g. sections 2.2.5, 3.1.16, 5.2.16). For instance, if you indicated that consent will be written and oral, does this refer to all participants undergoing written and oral consent or does it refer to different consent processes for different participant groups? You should also justify why you have chosen these forms of consent. If you are using oral consent, explain how it will be recorded (e.g. in field notes, using tape recording).

All participants will be provided with a participant information sheet which will include a page for them to sign to give consent. This has been chosen as a suitable method as the requirements of participation are not complex and it ensures that all participants receive the same information provided in suitable language.

223 - Will there be participants who are not fluent in English or who have difficulty understanding English?
No

224 - Will a Participant Information Statement be provided? If so, please attach this in the Documents tab.
Yes

230 - Is there an intention to recruit participants who have a physical impairment or disability that may affect the consent process (e.g. blind/vision impaired/deaf/hearing impaired/speech impaired)?
No

232 - SECTION E The questions in Section E relate to how you will protect participants’ privacy and the confidentiality of their information in your research project. Will any part of the project involve recordings (e.g. audio, video, online surveys)?
Yes

235 - Which of the following recordings will be used in the project? More than one may apply.
Audio recordings

236 - Outline how these recordings will be used and why they are necessary to achieve the aims of the research project. If your project involves online surveys, state where the surveys will be hosted and comment on any security, data ownership and privacy constraints associated with this survey host.

All interviews will be audio recorded then transcribed. All data will be de-identified by using codes instead of names and removing any potentially identifying text from transcripts. Data will be stored on the password protected computer of the researcher, on the ACT Health secure server. Recordings will be deleted as soon as practicable after transcription.

Hardcopies of transcriptions will remain in the possession of the principal investigator, stored in a locked filing cabinet in a secure ACT Health office. Following completion of the study, hard copies will be securely destroyed and an electronic copy of the data will be stored on the ACT Health secure server for seven years in accordance with ACT Government Records Disposal Schedule.

234 - Will you be collecting information/data about a participant from a third party (i.e. another individual)? Please note that this DOES NOT include agencies or organisations.
No
237 - The following questions will establish whether the HREC needs to apply federal or state/territory privacy legislation when reviewing your ethics application. Will you use, collect or disclose information about human participants from an agency, authority or organisation? This includes Commonwealth agencies, private sector organisations, state/territory agencies and international organisations. For instance, you may be using information from a medical practice, a hospital, a university, a state or federal government department. You should say "yes" even if it is your own organisation (e.g. your medical practice).

No

241 - Is the research project likely to produce information or results that are of personal significance to individual participants? For instance, a project may reveal that participants are at risk of developing a particular disease, provide insight into their intellectual/other abilities, or indicate that they have physical or mental health problems.

No

335 - Is the research project likely to reveal a significant risk to the health or wellbeing of persons other than the participant (e.g. family members, colleagues, community members)?

No

319 - Does this project involve the use of information that you or your organisation had collected previously for another purpose?

No

344 - Describe how the overall results of this research project will be disseminated (e.g. journal publications and book chapters, conference presentations, student theses, creative works).

The Principal Investigator will use the results in a Doctor of Philosophy research thesis (University of Sydney). The results will also be published in journal articles and conference papers.

347 - Will the confidentiality of participants and privacy of their data be protected in the dissemination of overall research results? Please note that if you propose to identify individuals in publications, you should select "no" here and obtain their consent for this. Please also note that if you have obtained personal information without individual consent under a waiver of consent, you can only publish this information in de-identified form.

Yes

349 - Explain how confidentiality of participants and privacy of their data will be protected in the dissemination of research results.

In any publication or presentation, information provided will be presented in such a way that individuals cannot be identified (e.g. real names will not be used, job titles or place of work will not be included).

350 - Will the information generated in this research project be used for any purpose(s) other than those outlined in this application? For example, will data be retained and used in future research projects, used to establish a database/research register, provided to a third party or to a public data sharing resource? Please note that this question does not refer to the use of the data for the purposes of this project (e.g. publication of results).

No

351 - Outline how feedback concerning the overall results of the project will be made available to participants (e.g. via a lay summary or newsletter). If participants are not to receive feedback, please justify why not.

Specific feedback will not be provided unless requested.

353 - Describe where study materials will be stored DURING the project (including electronic and hard copy files, consent forms, audio recordings, questionnaires, interview transcripts, video recordings, photographs etc). Please include building and room numbers for hard copy materials.

Data will be stored on the password protected computer of the researcher, on the ACT Health secure server. Recordings will be deleted as soon as practicable after transcription. Hardcopies of
transcriptions will remain in the possession of the principal investigator, stored in a locked filing cabinet in a secure ACT Health office at 123 Carruthers St Curtin, ACT.

354 - Describe where study materials will be stored upon COMPLETION of the project (including electronic and hardcopy files, consent forms, audio recordings, questionnaires, interview transcripts, video recordings, photographs etc). Please include building and room numbers for hardcopy materials. Note that on conclusion of the project a copy of all materials must be kept in an accessible and secure location on University premises.

Following completion of the study, hard copies will be securely destroyed. Electronic copies of data will be stored on the ACT Health secure server for seven years in accordance with ACT Government Records Disposal Schedule.

355 - Outline the security measures that will be used to protect study materials from misuse, loss or unauthorised access during and after the project (e.g. removal of identifiers, secure storage, restriction of access to appropriate personnel etc).

Only the researchers will have access to the interview transcripts which will be held securely at ACT Health. Participants will be identified by a code rather than name or other identifiable features such as job title. The audio recordings will be destroyed following transcription. The transcripts will be stored on a secure drive on the ACT Health network for a period of seven years as per ACT Health policy. Hard copies will be kept in a secure office in a locked filing cabinet and destroyed at the completion of the project.

356 - Specify how long study materials will be retained for after project completion. Please note that the options provided below are intended to facilitate compliance with relevant legislation from the State Records Authority of NSW. Data from research involving children; and from clinical trials, scanning and radioactivity studies, clinical studies, genetic manipulation, human tissue studies, and psychological research that has potential long term effects must be retained for a minimum of 20 years or until participants are 25 years of age (whichever is longer). Data from other types of studies must be retained for a minimum of 5 years. For some types of research (e.g. oral history, gene therapy) or where it is intended to reuse data in the future, it is appropriate to retain data in perpetuity (i.e. indefinitely).

Other

357 - Explain why this storage period has been chosen.

7 Years for electronic copies of data as required by ACT legislation- as advised by ACT Health Human Research Ethics Committee.

358 - At the end of the project, will study materials/information be stored in individually identifiable or re-identifiable form? Please note that this does not refer to the consent forms. Individually identifiable information is that from which the identity of a specific individual can reasonably be ascertained. Re-identifiable information has had identifiers removed and replaced by a code, so it is possible to identify individuals by using the code. Non-identifiable information has had all identifiers irreversibly removed or was never identifiable (see Chapter 3.2 of the National Statement for more information).

No

359 - If they are not to be kept in perpetuity, how will project materials ultimately be disposed of?

A request will be made to the appropriate ACT department to remove/ destroy the folders the information will be kept in on the ACT Health server, on a specified date.

361 - SECTION FThe questions in Section F concern risks to both participants and others connected with the study. Participation in research can involve potential harm to participants including physical, psychological, reputational, financial, spiritual, emotional and social distress. Please outline any potential harm and justify it with regard to the potential benefits of the project. What steps will the researchers take to minimise potential harm endured as a consequence of participation? (e.g. by providing access/information to counselling)

There are no anticipated risks from participating in the study
362 - Are there any other risks involved in this research? For example, to the research team, the organisation, others? What are these risks? Explain how these risks will be negated/ minimised/ managed.

There are no anticipated risks from participating in or conducting the study.

363 - The questions in Section G concern details of the research study. Please answer the following questions:

**The nature of this project is most appropriately described as research involving (more than one may apply):**

- Interviews (including oral history)
- Focus groups

364 - Are you doing research in a context which requires you to get permission from an appropriate authority e.g. a school, corporation, NGO, or similar?

No

365 - Outline in lay language the theoretical, empirical and/or conceptual basis, background evidence for the research proposal with reference to the relevant literature (include at least four research citations). Note, that your study should be "based on a thorough study of the current literature, as well as previous studies" (NS 1.1 c).

The prevalence of chronic disease is on the rise. In Australia, it is the major cause of death and disability. Half of all Australians have at least one chronic disease with many managing more than one chronic illness. The cost to the health system is significant with more than a third of the Australian health budget attributed to chronic disease management. Interventions developed to prevent chronic disease can improve quality of life and productivity, reduce morbidity and mortality and reduce demand for health care. However, despite evidence available on effective interventions, prevention activity is not routinely integrated into health services, even where it is considered appropriate.

A major risk factor for many chronic diseases is being overweight or obese. Being overweight or obese can impede the management of chronic conditions and is the second highest contributor to burden of disease. In Australia, rates are increasing across all age and socioeconomic groups. Approximately two thirds of adults and a quarter of children are overweight or obese. As well as the treatment of weight related conditions, the health system has a key role to play in obesity and overweight prevention. The prevention role of general practice and to a degree, primary healthcare more broadly has been well described. The role of other aspects of the health service has been less well described and consequently there is not clear direction for the incorporation of prevention into the broader health system.

The aim of this research is to examine the role health services have in delivering chronic disease prevention focused care and to identify the barriers and enablers to incorporating a prevention focus into clinical care. The area being used as a focal point is the prevention of overweight and obesity by non-admitted health services. A non-admitted service is a unit or organisational arrangement under which a hospital provides services for individuals not admitted to hospital. It includes all arrangements made to deliver healthcare to non-admitted patients irrespective of location or funding source. This includes non-admitted emergency department contact, outpatient care and services such as community nursing and allied health and diagnostic procedures. There are approximately 46 million non-admitted patient occasions of care in Australia per year.

The first phase of this project will involve a literature review and interviews with academic experts in obesity prevention, to examine the current evidence for obesity and overweight prevention in the health services system, including barriers and enablers to implementation, along with an analysis of descriptive data pertaining to obesity prevalence, at risk groups etc. The second phase will involve interviews with key stakeholders including policy makers, clinical managers, clinicians and consumers with the aim of eliciting how preventive care can be embedded in health services; how it is perceived by key stakeholders and how these perceptions enable or block the uptake of prevention activity. To access an appropriate range of stakeholders, it is proposed that ACT Health will be utilised as a case study for this project and it is for this phase of the project that ethical approval is being sought. All information collected will be examined within the theoretical framework of complex adaptive systems in order to develop a model/ framework to support the increased uptake of chronic disease prevention within the health system.


5. National Health and Medical Research Council, Clinical practice guidelines for the management of overweight and obesity in adults, adolescents and children in Australia, National Health and Medical Research Council, Editor. 2013: Melbourne.


367 - Outline in lay language the methodology for the research proposal. Note, that you study should be “designed or developed using methods appropriate for achieving the aims of the proposal” (NS 1.1 b). Your response should include:

- Aims and hypotheses/research questions
- Research plan including duration of the study and/or timeline
- Participant characteristics including sex, age range and inclusion/exclusion criteria (if relevant)
- The intended sample size with a justification, and/or the participant sampling/selection strategy (as relevant to your study)
- Details of where the study will be undertaken (location/site/URL)
- Details of how data will be collected and analysed
- Potential significance of the study

The main aim of this project is to examine the role of non-admitted health services in the prevention of overweight and obesity in the adult population and explore and describe the key barriers and enablers to incorporating obesity prevention into non-admitted health services for adults.

Key research questions to be examined via the literature review are:

- What is the evidence for incorporating the prevention of overweight and obesity into non-admitted health services for the adult population?
- Who are the key groups who would most benefit from overweight and obesity prevention interventions being delivered via non-admitted health services?

The key research questions to be explored through the case study interviews are:

- What do health service planners, clinicians and consumers view as the role of health services in the prevention of overweight and obesity?
- What are the key barriers and enablers to incorporating the prevention of overweight and obesity into non-admitted health services for the adult population?
- What are the attitudes and beliefs of staff and consumers towards incorporating obesity prevention into health services?

This research will primarily employ qualitative methodology to investigate both the organisational factors influencing the uptake of prevention as well as the influence of staff and consumer attitudes and beliefs. Empirical material collected by the use of a case study will undergo thematic analysis. This information will be further analysed within the context of quantitative data obtained from national and local data sets describing the prevalence and incidence of obesity both generally and with reference to specific population subsets.

The sample size for the case study will be determined by a mix of organisational factors specific to ACT Health and saturation sampling.

ACT Health has been selected as a case study for my research. As an employee of ACT Health the principal investigators understanding of the structure of the organisation and the various levels of
expertise, allows for purposive sampling within a typical health service structure in order to best answer the research questions. The ordering of the interviews has been developed to mimic the linear development of health services i.e. a strategic goal influences policy which then aims to direct clinical service planning. Clinicians are then directed by clinical service planners to modify or develop the clinical service being delivered. Whilst the consumer voice has some influence at each of these stages, typically users of the service do not have the opportunity to feedback until after they have accessed a service.

It is acknowledged that as complex systems, health services do not always follow this linear design. However, using the linear design provides a practical structure to the sampling technique in order to gain a better understanding of the complex concepts being examined. Consequently, the analysis of the data will not be considered in this linear fashion. As each member of the structure will have a different perspective based on their knowledge and experience, this research aims to combine all those experiences in order to draw out the key elements which need to be considered if health services are to be supported to incorporate prevention.

There is an emerging base of evidence in relation to how chronic disease prevention programmes, including obesity prevention, should be formulated and delivered across a number of different settings and populations. However, the overall role of health services has not been described and therefore interventions in this setting have tended to be implemented in silos rather than incorporated at a system level. The complexity of obesity and the associated health problems provides a significant challenge for health service planning and delivery. Health services find it particularly challenging to incorporate prevention into an illness focused model of care. This research provides participants with the opportunity to influence the way services may evolve and to contribute to the development of a systems model / framework which supports increased prevention interventions by addressing organisational and attitudinal barriers.

207 - Thank you for completing the University of Sydney’s Human Ethics Application Questionnaire. After selecting ‘Completed’ below, please remember to attach any documents relevant to your application in the next tab. After completing your application, return to the ‘Coversheet’ tab and press the ‘Submit’ button. You will receive an email shortly after confirming your submission. Once again, if you require further information on the application procedure, please consult our website or email the Human Ethics team at ro.humanethics@sydney.edu.au if you experience any technical difficulties, please do not hesitate to contact Research Support using the details below: T +61 2 8627 8183 E research.support@sydney.edu.au

Continue

**LIST OF ATTACHED DOCUMENTS**

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<tr>
<td>11/01/2016</td>
<td>Human Ethics Application Form</td>
<td>Application to ACT Ethics (approved)</td>
</tr>
<tr>
<td>11/01/2016</td>
<td>Recruitment Letter/Email</td>
<td>Draft email</td>
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<tr>
<td>11/01/2016</td>
<td>Advertisements/Flyer</td>
<td>participant information sheet</td>
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Research Integrity
Human Research Ethics Committee

Wednesday, 23 March 2016

Prof Andrew Wilson
Medicine; Sydney Medical School
Email: a.wilson@sydney.edu.au

Dear Andrew

I am pleased to inform you that the University of Sydney Human Research Ethics Committee (HREC) has approved your project entitled “The role of non-admitted health services in the prevention of adult overweight and obesity: a systems approach to supporting the translation of evidence into practice.”

Details of the approval are as follows:

Project No.: 2016/122
Approval Date: 23rd of March 2016
First Annual Report Due: 23rd of March 2017
Authorised Personnel: Wilson Andrew; Rychetnik Lucie; Wutzke Sonia, Pearce Claire

Documents Approved:

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<tr>
<td>27/02/2016</td>
<td>Participant Consent Form</td>
<td>Uni of Sydney PCF</td>
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<tr>
<td>27/02/2016</td>
<td>Participant Info Statement</td>
<td>Uni of Sydney PIS</td>
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<tr>
<td>27/02/2016</td>
<td>Interview Questions</td>
<td>Interview Guide</td>
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HREC approval is valid for four (4) years from the approval date stated in this letter and is granted pending the following conditions being met:

**Condition/s of Approval**

- Continuing compliance with the National Statement on Ethical Conduct in Research Involving Humans.
- Provision of an annual report on this research to the Human Research Ethics Committee from the approval date and at the completion of the study. Failure to submit reports will result in withdrawal of ethics approval for the project.
- All serious and unexpected adverse events should be reported to the HREC within 72 hours.
• All unforeseen events that might affect continued ethical acceptability of the project should be reported to the HREC as soon as possible.

• Any changes to the project including changes to research personnel must be approved by the HREC before the research project can proceed.

• Note that for student research projects, a copy of this letter must be included in the candidate’s thesis.

**Chief Investigator / Supervisor’s responsibilities:**

1. You must retain copies of all signed Consent Forms (if applicable) and provide these to the HREC on request.

2. It is your responsibility to provide a copy of this letter to any internal/external granting agencies if requested.

Please do not hesitate to contact Research Integrity (Human Ethics) should you require further information or clarification.

Yours sincerely

Professor Glen Davis  
Chair  
Human Research Ethics Committee

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This HREC is constituted and operates in accordance with the National Health and Medical Research Council’s (NHMRC) National Statement on Ethical Conduct in Human Research (2007), NHMRC and Universities Australia Australian Code for the Responsible Conduct of Research (2007) and the CPMP/ICH Note for Guidance on Good Clinical Practice.
The role of non-admitted health services in the prevention of overweight and obesity.

PARTICIPANT INFORMATION STATEMENT

(1) What is this study about?

You are invited to take part in a research study about the factors required to successfully incorporate chronic disease prevention into health services. A major risk factor for many chronic diseases is being overweight or obese. This study will specifically explore the potential role of health services in preventing obesity and what factors need to be addressed to incorporate evidence into practice.

You have been invited to participate in this study because you have been identified as an expert working in the area of obesity prevention, particularly in relation to the role of health services. This Participant Information Statement tells you about the research study. Knowing what is involved will help you decide if you want to take part in the research. Please read this sheet carefully and ask questions about anything that you don’t understand or want to know more about.

Participation in this research study is voluntary.

By giving your consent to take part in this study you are telling us that you:

✓ Understand what you have read.
✓ Agree to take part in the research study as outlined below.
✓ Agree to the use of your personal information as described.

You will be given a copy of this Participant Information Statement to keep.

(2) Who is running the study?

The study is being carried out by the following researchers:

- Professor Andrew Wilson of the Menzies Centre for Health Policy and the Australian Prevention Partnership Centre.
- Associate Professor Sonia Wutze, the Australian Prevention and Partnership Centre
- Associate Professor Luce Rychetnik, the Sax Institute
Claire Pearce is conducting this study as the basis for the degree of a Doctor of Philosophy at The University of Sydney. This will take place under the supervision of Professor Andrew Wilson.

This study is being funded by the Australian Prevention Partnership Centre.

(3) What will the study involve for me?

If you agree to participate in this study, you will be interviewed face-to-face or by telephone. The interview will take approximately one hour and will be audio recorded. The recording will be transcribed at which stage all identifying information will be removed. The interview will take place at a time and place agreed with you and will be conducted by the student leading this project.

Following transcription of the interview, you will be sent a copy for review.

(4) How much of my time will the study take?

The interview will take approximately one hour.

(5) Who can take part in the study?

For this stage of the research, participants are researchers with expertise in obesity prevention.

(6) Do I have to be in the study? Can I withdraw from the study once I've started?

Being in this study is completely voluntary and you do not have to take part. Your decision whether to participate will not affect your current or future relationship with the researchers or anyone else at the University of Sydney or the Australian Prevention Partnership Centre.

If you decide to take part in the study and then change your mind later, you are free to withdraw at any time. You can do this by informing the chief investigator or research student.

You are free to stop the interview at any time. Unless you say that you want us to keep them, any recordings will be erased and the information you have provided will not be included in the study results. You may also refuse to answer any questions that you do not wish to answer during the interview.

(7) Are there any risks or costs associated with being in the study?

Aside from giving up your time, we do not expect that there will be any risks or costs associated with taking part in this study.

(8) Are there any benefits associated with being in the study?

We cannot guarantee that you will receive any direct benefits from being in the study.

(9) What will happen to information about me that is collected during the study?

By providing your consent, you are agreeing to us collecting personal information about you for the purposes of this research study. Your information will only be used for the purposes outlined in this Participant Information Statement, unless you consent otherwise.
Your information will be stored securely and your identity/information will be kept strictly confidential, except as required by law. Study findings may be published, but you will not be individually identifiable in these publications.

(10) Can I tell other people about the study?

Yes, you are welcome to tell other people about the study.

(11) What if I would like further information about the study?

When you have read this information, Claire Pearce will be available to discuss it with you further and answer any questions you may have. If you would like to know more at any stage during the study, please feel free to contact Claire Pearce on 02 6207 9290, claire.pearce@act.gov.au OR Andrew Wilson on 02 9036 6357 or a.wilson@sydney.edu.au

(12) Will I be told the results of the study?

You have a right to receive feedback about the overall results of this study. You can tell us that you wish to receive feedback by ticking the relevant box on the consent form. This feedback will be in the form of a summary of the information obtained from the interviews. You will receive this feedback after the study is finished.

(13) What if I have a complaint or any concerns about the study?

Research involving humans in Australia is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). The ethical aspects of this study have been approved by the HREC of the University of Sydney [INSERT protocol number once approval is obtained]. As part of this process, we have agreed to carry out the study according to the National Statement on Ethical Conduct in Human Research (2007). This statement has been developed to protect people who agree to take part in research studies.

If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the university using the details outlined below. Please quote the study title and protocol number.

The Manager, Ethics Administration, University of Sydney:

- **Telephone:** +61 2 8627 8176
- **Email:** ro.humanethics@sydney.edu.au
- **Fax:** +61 2 8627 8177 (Facsimile)

This information sheet is for you to keep
The role of non-admitted health services in the prevention of overweight and obesity.

PARTICIPANT CONSENT FORM

I, ................................................................................... [PRINT NAME], agree to take part in this research study.

In giving my consent I state that:

✔ I understand the purpose of the study, what I will be asked to do, and any risks/benefits involved.

✔ I have read the Participant Information Statement and have been able to discuss my involvement in the study with the researchers if I wished to do so.

✔ The researchers have answered any questions that I had about the study and I am happy with the answers.

✔ I understand that being in this study is completely voluntary and I do not have to take part. My decision whether to be in the study will not affect my relationship with the researchers or anyone else at the University of Sydney or the Australian Prevention Partnership Centre now or in the future.

✔ I understand that I can withdraw from the study at any time.

✔ I understand that I may stop the interview at any time if I do not wish to continue, and that unless I indicate otherwise any recordings will then be erased and the information provided will not be included in the study. I also understand that I may refuse to answer any questions I don’t wish to answer.

✔ I understand that personal information about me that is collected over the course of this project will be stored securely and will only be used for purposes that I have agreed to. I understand that information about me will only be told to others with my permission, except as required by law.

The role of non-admitted health services in the prevention of obesity.
✓ I understand that the results of this study may be published, and that I will be identified in these publications.

I consent to:

- **Audio-recording**
  - YES ☐ NO ☐
- **Permanent archiving of study materials**
  - YES ☐ NO ☐
- **Reviewing transcripts**
  - YES ☐ NO ☐

**Would you like to receive feedback about the overall results of this study?**

- YES ☐ NO ☐

If you answered YES, please indicate your preferred form of feedback and address:

☐ Postal: ___________________________________________________________
  ___________________________________________________________

☐ Email: __________________________________________________________

.................................................................
**Signature**

.................................................................
**PRINT name**

.................................................................
**Date**

The role of non-admitted health services in the prevention of obesity.
APPENDIX 5: Summary of responses from expert interviews

EXPERT 1: Academic
- Health services have a role to play in obesity prevention but presently that role is not being fulfilled due to combination of knowledge (don’t know what to do); politics and priority. Policy is needed which provides guidelines and tools for clinicians, including ways to collect data relating to weight.
- Did not highlight particular populations to target for prevention; health services need to determine how prevention is prioritised. The key actions are identifying the issues, providing information and referring to appropriate providers.
- Potential barriers: staff knowing how to have a conversation about weight and knowing how prevention fits in their practice were. Enabler: staff training.

EXPERT 2: Academic
- Health services have a large role to play in obesity prevention, but at the moment it is potential rather than actual. Ideally, every health consultation should include assessment of key risk factors relating to smoking, nutrition, alcohol use and physical activity (SNAP); advice giving and referral.
- Barriers: professional cultures not prioritising prevention; lack of time or perceived lack of time; perceived lack of role relevance; lack of enabling tools and resources and lack of skill. Enablers: strong clinical leadership; systems such as computer prompts and staff training
- Preventive care should be delivered on an opportunistic, universal care basis. This would mean introducing weight as a clinical measurement plus focusing on assessment questions about fruit and vegetable consumption and physical activity. Evidence based clinical guidelines are essential to support this, but these cannot be onerous. Key performance indicators will support prevention being incorporated into clinical services.
- The stigma of weight is an issue but evidence shows that people expect their health professional to discuss issues relating to preventive care. The way the topic of weight is introduced will impact on how effective the message is.

EXPERT 3: Academic
- Health services have a key role in providing education, advice and support relating to obesity prevention but are a long way off delivering optimal care. There are systems changes required to support this, particularly having accurate data on populations in relation to risk factors and IT systems to record and share information. Linkages between primary care and prevention services are poor and often prevention focussed services are not long term, leaving primary care with nowhere to refer people to.
- Teamwork is key to effective prevention and this may mean developing different roles such as the ‘community health worker’ role in the USA. Ongoing funding is also required and funding for things such as prevention care plans.
- Stigma in relation to weight is an issue. Patients can feel stigmatised by health services but also, obese health professionals may not feel able to raise weight as an issue. However, patients expect their health professional to raise the issue of weight but would like it done in a non-judgemental way.
**EXPERT 4: Academic and Clinical role**

- Health services have role in obesity prevention that is not being achieved. The role may just to be to assess, have a conversation and refer on. The interview placed more of an emphasis on the practical issues of building prevention into services, including engaging staff in redesigning interventions. Health services need to promote a healthy lifestyle message to their staff and in health settings e.g. through what food is available in hospital cafes.

- Weight is not routinely measured and data relating to weight is not routinely used as a clinical indicator. Problems are more likely to be coded by the symptoms of obesity (diabetes, sleep apnoea, orthopaedic problems etc) rather than obesity itself or be based on service throughput. Key performance indicators may be something like number of referrals made to a prevention program.

- Health professionals may not have the time to raise weight/healthy lifestyle with their clients or may avoid doing as there is nowhere for them to then refer to for treatment. They also are not trained in how to raise the issue of weight and may have negative stigmatised views on obesity. Training should be built in at the undergraduate level and be available to all staff.

- Barriers include the upfront costs of introducing prevention in relation to the length of time before results are seen; difficulty prioritising future or potential problems over acute problems in the present.

- Increasing prevention in health services may mean incorporating into current services; reconfiguring current services; adding to current services or dismantling and rebuilding existing services.

**EXPERT 5: Academic and Clinical role**

- Raised issue of obesity as a disease—obesity prevention should sit within chronic disease model rather than as a separate issues, the link between obesity and disease helps support the argument for prevention more generally in health services. Need an integrated service working from primary prevention through to specialised treatment. Should not separate prevention from management. Health services are broken into silos, in part due to funding models. This reduces capacity to provide an integrated approach to prevention.

- Weight may not be raised as an issue with patients due to time, knowledge and concern at not having the skills to address weight as an issue. Obesity requires a multidisciplinary approach but at the moment this is not built into existing services.

- Not effectively measuring prevention intervention or the outcomes if it does occur. Need to strengthen ties between public health and clinical services in order to develop meaningful and long term measures. Need to resolve issue of whether obesity is a disease which also means seeing that it needs both a clinical and a public health approach. Also to move away from a personal responsibility model, factor in social/environmental factors.
Dear

I am writing to invite you to participate in a research study which aims to examine how chronic disease prevention can be effectively included in health services. As a major risk factor for many chronic diseases is being overweight or obese, this study will specifically look at what health services can do to help prevent obesity. As part of the research, ACT Health has been selected as a case study in order to examine the barriers and enablers to incorporating more prevention into clinical services.

In the first phase of the study, the researcher will interview people with expertise in health service policy development, clinical service planning or clinical service delivery. The interviews will take approximately one hour and will be conducted either on a one-on-one basis or in groups of 8-10 people, during business hours. The second phase of the study will seek views from consumers.

You have been chosen to provide a perspective on this topic in your position as - insert job title here-. You will not be able to be identified in the write up of the research either by name or job title. For further information about the study, please refer to the attached participant information sheet.

Participation in this study is voluntary, it is completely up to you whether or not you participate. If you decide not to participate, it will not affect your employment or your relationship with the researcher or other participants in the research.

If you would be willing to participate, or would like further information, please contact me at Claire.pearce@act.gov.au or on 02 6207 9290. Alternatively, I will be in contact with you in the next 5-7 days and if you are available to participate, we can confirm a suitable time and location for the interview.

Yours sincerely

Claire Pearce
Dear

'The role of health services in the prevention of obesity' research project

The Australian Prevention Partnership Centre is working with ACT Health to investigate the role of health services in the prevention of obesity. In order to examine the barriers and enablers to incorporating prevention into clinical services, including staff attitudes and current practices, interviews will be held with ACT Health staff and consumers. All interviews will be anonymous.

Health services work with consumers to reduce the development and progression of chronic disease. ACT Health supports this research as successful prevention has the potential to reduce the personal, family and community effects of chronic disease and leads to better use of health system resources.

I welcome you to take part in this research. Participation is voluntary, it is completely up to you whether or not you take part. If you decide not to participate, it will not affect your employment or your relationship with the researcher or other participants in the research.

This research has received approval from the ACT Health Human Research Ethics Committee. Further information regarding what is required is provided in the attached participant information sheet or by contacting the researcher Claire Pearce at claire.pearce@act.gov.au.

Yours sincerely

[NICOLE FEELY] [DIRECTOR-GENERAL]

April
Participant Information Sheet
The Role of Health Services in the Prevention of Obesity

You are being invited to take part in a research study. Before you decide to take part it is important for you to understand why the research is being done and what it will involve. Please take the time to read the following information carefully. Please ask the study team any questions you have and request any further information you need.

**Why is this study being done?**
The prevalence of chronic disease is increasing. In Australia, it is the major cause of death and disability. The cost to the health system is significant, with more than a third of the Australian health budget spent on chronic disease management. Many chronic diseases can be prevented, so a lot is being done to develop a range of prevention programs, focussing on the whole population as well people at high risk.

This study aims to look at the factors required to successfully incorporate chronic disease prevention into health services. A major risk factor for many chronic diseases is being overweight or obese. This study will specifically explore the potential role of health services in preventing obesity and what factors need to be addressed to incorporate evidence into practice.

**What is involved in the study?**
This information sheet covers the first phase of this study which involves the researcher interviewing a number of people within the one health system (ACT Health) about the role of health services in obesity prevention. Participants will have expertise in policy development, clinical service planning or clinical service delivery. The interviews will take approximately one hour and will be conducted either on a one-on-one basis or in groups of 8-10 people. Interviews and focus groups will be conducted during business hours (Monday- Friday, 9am-5pm). All interviews will be recorded. The second phase of the study involves the researcher talking to member of the ACT community who have accessed ACT Health services.

**Investigators:**
The Principal Investigator for this project is Claire Pearce from the Chronic Disease Management Unit, ACT Health. The investigator team includes Professor Andrew Wilson and Associate Professor Sonia Wutzke from the Australian Prevention Partnership Centre and University of Sydney.

**Why have I been chosen?**
You have been chosen as you have expertise in policy development, clinical service planning or clinical service delivery.

**Do I have to take part?**
Participation in this study is voluntary. It is completely up to you whether or not you participate. If you decide not to participate, it will not affect your employment or your relationship with the researcher or other participants in the research.
You may withdraw from the study at any time. If you withdraw after you have taken part in an interview or focus group, your contributions to the discussion will be removed from the transcripts and not be included when the data is being analysed and reported.
Are there any risks?
There are no anticipated risks from participating in the study. Your involvement in the project will not impact on your employment or your relationship with the researchers or other participants in the research.

Are there any benefits?
The study may help health services to make better decisions about their role in the prevention of obesity but it may or may not directly benefit you. Your participation may help others in the future.

What are the costs?
There will be no cost to you for participating in this study.

Access to the results of the study
For those participants undertaking one-on-one interviews, a copy of the transcript will be provided to you to check for accuracy.

The Principal Investigator (listed on the previous page) will use the results in a Doctor of Philosophy research thesis (University of Sydney). The results will also be published in journal articles and conference papers. In any publication or presentation, information you provide will be presented in such a way that you cannot be identified. If you wish, overall results will be provided to you.

What about confidentiality?
Any information that identifies you in connection with this study will remain confidential and will be disclosed only with your permission. An external company, Rev, will assist with transcribing the audio-recordings. Files are securely stored and transmitted using 128-bit SSL encryption, will never be shared with anyone outside of Rev and will only be visible to the transcribing professionals who have signed strict confidentiality agreements.

Following transcription, only the researchers named above will have access to your details and results which will be held securely at ACT Health. The audio recordings will be destroyed following analysis. The transcripts will be stored on a secure drive on the ACT Health network for a period of seven years as per ACT Health policy. Hard copies will be kept in a secure office in a locked filing cabinet and destroyed at the completion of the project.

If you have any questions please contact the research team
Claire Pearce, Chronic Disease Management Unit, ACT Health
Phone: 02 6207 9290 or email: Claire.pearce@act.gov.au

Should you have any problems or queries about the way in which the study is conducted, and do not feel comfortable communicating with the staff conducting this survey, please contact: ACT Health Human Research Ethics Committee (ACTH-HREC), Level 6, Building 10, Canberra Hospital, Telephone: (02) 6174 7968 or acthealth-hrec@act.gov.au
Consent Form for Participation in a Research Project.

I, ______________________________________ (name of participant)
of _________________________________________________________ (address)
have been asked to consent to participation in a research project entitled:

The Role of Health Services in Obesity Prevention

In relation to this study I have read the Participant Information Sheet and have been informed of the following points:

1. Approval has been given by the ACT Health Human Research Ethics Committee. ☐
2. The aim of the study is to investigate the role of health services in the prevention of obesity. ☐
3. The results obtained from the study may or may not be of direct benefit to me ☐
4. The study procedure will involve audio recording. The recordings will be transcribed before being destroyed. Transcribed interviews will be stored electronically on a secure computer and in hard copy in a locked filing cabinet in a secure ACT health building ☐

5. Should I have any problems or queries about the way in which the study was conducted, and I do not feel comfortable contacting the research staff, I am aware that I may contact:
   The ACT Health Human Research Ethics Committee Secretariat, Canberra Hospital, Yamba Drive, Garran ACT 2605 (ph: 6174 7968) ☐

6. I can refuse to take part in this project or withdraw from it at any time without giving a reason ☐

7. I understand that while the results of the research will be made accessible my involvement and my identity will not be revealed. ☐

After considering all these points, I accept the invitation to participate in this study.

Name: (please print) ___________________________________________ Date: ______________

Signature (Participant) ___________________________________________

Investigator: (please print) ______________________________________ Date: ______________

Signature (Investigator) _______________________________________

CONSENT FORM- Staff