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The Consequences of Subsidising After-Hours Healthcare for Young Children in Auckland

Catherine Rebecca Dowson

Objectives

In 2011 an initiative was implemented in Auckland to improve access to after-hours care, by subsidising the cost of medical visits for children aged under six at participating Accident & Medical clinics (A&Ms). The Minister of Health subsequently issued a national directive of similar nature. Some general practitioners (GPs) fear unintended consequences from this policy will result in reduced general practice funding (through funding ‘clawback’) and reduced continuity of within-hours care. This thesis investigated the consequences of the Auckland under-sixes subsidy on access to, and provision of, primary care services in the region.

Methods

This research took a mixed methods approach, using five studies to investigate the consequences of the subsidy. Changes to after-hours utilisation of subsidised A&Ms, GP consults within-hours, and funding clawback at selected practices were compared between 2010 and 2012, the years immediately prior to and following the subsidy’s implementation. Interviews with a small number of Auckland GPs were carried out. Selected questions from a survey with parents of children using A&M services were also considered.

Lessons Learned

There has been increased utilisation of subsidised A&Ms after-hours, indicating improved affordability and access. This has resulted in an increase in clawback of funding. However, this was mitigated by a reduction in other forms of clawback, due to a concurrent policy reducing the cost of within-hours care. There was no negative effect on continuity of care, due to parents using A&Ms for urgent rather than routine care. Significantly, this thesis identified a number of methods used by GPs to avoid the perceived threat of clawback, such as disenrolling young patients.

Implications

The subsidy aimed to increase access to after-hours care in Auckland for young children. However, when combined with other national primary care funding policies, the subsidy has resulted in a system that dilutes the aim of the Primary Health Care Strategy (2001), and reduces access to primary care for young children and possibly other patients. These consequences may also occur as a result of the national directive, and will continue until the poor complementarity of primary care funding policies in New Zealand is addressed.
Firstly, I would like to thank the participants in my GP interviews for speaking to me. I am grateful that you shared your thoughts on a potentially controversial topic. Additionally, I would like to thank the parents who took part in the wider BSMC project, for taking the time to talk to researchers when your child was unwell.

Thank you to those at the Ministry of Health and Procare who supplied the data used in this research. Every piece has been invaluable to seeing the big picture. Thank you also to Jane for your proofreading work during the last part of this process.

Thank you to the members of the BSMC Acute Care project for including me in such an interesting evaluation. My enjoyment of the research process has been the result of the assistance and the encouragement you offered me during the last year.

I would like to thank my supervisor Dr Tim Tenbensel. Your guidance, enthusiasm and advice have been invaluable over the year. I will always appreciate the opportunity you gave me to take on such a fascinating project, and the space you gave me to shape it into this thesis.

Thanks to everyone in the Health Systems Department for your kind words over the last year. Liza and Deena, you have made the last year one of my best yet.

Thank you to Sarah for keeping me sane these last few months.

Mum, I am so grateful for your help over this time. You have motivated me to keep going and keep things in perspective. I hope you are proud of the love of learning you have given me.

And thank you most of all to Hayden. Your enduring support, humour and love got me through the last year. I am lucky to have you on my team.
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<td>A&amp;M</td>
<td>Accident and Medical Clinic</td>
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<td>ARAHN</td>
<td>Auckland Regional After-Hours Network</td>
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<td>BSMC</td>
<td>Better Sooner More Convenient</td>
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<td>DHB</td>
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Background

Primary care is integral in a health system for meeting the needs of the population and improving health outcomes (Starfield, 2009; Starfield, Shi & Macinko, 2005). Starfield (1994) even argued that it is the “backbone” of health services given the central role it plays in preventing, diagnosing, and treating health problems (World Health Organization, 2014). Primary care is provided both within business hours, and after-hours, as care must be accessible at the time of need (DHB Shared Services, 2013; World Health Organization, 2014).

Access to primary care is particularly important for children under the age of six. Access to healthcare in early childhood has long been recognised as a key part of promoting child, and lifelong, health (Fancourt, Turner, Asher & Dowell, 2010; Ministry of Health, 2001; Public Health Advisory Committee, 2010; Ryall, 2011). A healthy start to life is associated with reducing later morbidity, and reducing health inequities (Andrulis, 1998; Forrest, Simpson & Clancy, 1997). However, in New Zealand the health of young children is poor when compared internationally, particularly in the incidence of preventable diseases such as rheumatic fever (Fancourt, et al., 2010; Jaine, Baker & Venugopal, 2008; OECD, 2009; Public Health Advisory Committee, 2010; UNICEF, 2007). There are also a significant number of inequalities in health outcomes between different groups of New Zealand children (Public Health Advisory Committee, 2010).

Historically there has been a significant number of initiatives to promote access to primary care for young children within normal working hours (Fancourt, et al., 2010; Hodgson, 2007). Many of these schemes have focused on improving the affordability of patient co-payments, a key element of access (Penchansky & Thomas, 1981). This includes the current ‘Zero Fees for Under 6s’ scheme, which provides additional funding to general practices that offer free consultations (within business hours) to all children aged under six years old (Ministry of Health, 2011a). As a result of this initiative, in 2011 83% of all general visits by children aged under six years were free, and nearly 90% of children under the age of six had visited a general practitioner in the last 12 months (Ministry of Health, 2012a).

However, there has been less national emphasis on increasing access to after-hours primary care, despite the fact that the after-hours period can be crucial to the health of young children. Many childhood illnesses, such as respiratory diseases, deteriorate during the evening. Other acute illnesses, such as infectious diseases, have higher prevalence among children in New Zealand and can have a rapid onset, which may occur after-hours (Baker, et al., 2012; Fancourt, et al., 2010). Children in the most deprived areas of New Zealand are also most likely to visit an after-hours medical centre (Ministry of Health, 2012a). Yet the cost of after-hours care for young children has historically been very high in New Zealand, and has been a barrier to accessing needed care (After-Hours Primary Health Care Working Party, 2005; Controller and Auditor-General, 2010; Verstappen,
In 2011, over 25% of children aged under six had visited an after-hours medical centre in the last 12 months, but only 37% of those visits were free (in contrast to the number of children able to access free care within-hours).

In September 2011, in response to the high cost of accessing after-hours services in Auckland, an initiative was put in place that subsidised the cost of after-hours medical care at participating Accident and Medical clinics across the region. This subsidy was part of a wider initiative funded by the Auckland Regional After-Hours Network, a network of healthcare providers and funders. This meant that, at many of these clinics, the cost of after-hours care for children aged under six was free or heavily subsidised (Tenbensel, et al., 2013). Just over a month after the Auckland subsidy began, the Minister of Health then issued a national directive to District Health Boards that after-hours care should be free for all children aged under six (Ryall, 2011).

When subsidised after-hours care was announced both in Auckland and nationally, a number of concerns were raised by general practitioners regarding the impact that the subsidy could have on within-hours primary care services. These concerns included that if after-hours care is provided at a low cost, then the increased utilisation of after-hours services may reduce general practice funding (through ‘clawback’ of capitation-based funding) and parents may choose to take their child to after-hours care instead of their normal within-hours provider. This could result in reduced continuity of within-hours care (General Practice NZ, 2012). It was also not known at the time whether reducing the cost of after-hours care would actually result in increased access and improved child health outcomes in New Zealand (New Zealand Treasury, 2011b).

This thesis seeks to contribute to understanding the consequences of subsidising after-hours care for young children in Auckland. In particular, it aims to discuss the implications of the subsidy on after-hours, and within-hours, primary care providers. The findings of this thesis may support the improvement of the Auckland initiative. The experience of Auckland may also be useful to anticipating the consequences of the national directive.

**Research Question and Objectives**

In order to investigate the consequences of the Auckland after-hours subsidy for children aged under six, it must first be understood whether it improved access to after-hours primary care (its intended aim), and what effect it had on other within-hours primary care providers in the region. The research question of this study is therefore:

How has the implementation of a subsidy for after-hours care for children aged under six years in Auckland impacted on access to, and provision of, primary care services in the region?

The specific research objectives were to identify what (intended and unintended) consequences the subsidy had on:

1. Access to after-hours care at A&Ms for children aged under six;
2. Access to, and continuity of, within-hours general practice care for children aged under six, and
3. Clawback of capitation funding, and general practitioners’ perceptions of clawback;

And to:

4. Identify the implications of the Auckland under-sixes subsidy when combined with other primary care policies in New Zealand.

Thesis Organisation

This thesis has been organised into seven chapters.

Chapter Two introduces the concept of primary care, including the importance of access to primary care, and ways in which the provision of primary care can be funded. It also summarises the primary care system in New Zealand.

Chapter Three provides an overview of after-hours care literature, and how after-hours care is provided in New Zealand. The aim of this chapter is to provide a context to the implementation of an initiative to improve access to after-hours care in New Zealand.

Chapter Four outlines national and local attempts to improve access to after-hours care for children aged under six in New Zealand. The local attempt it refers to in Auckland is the subject of this thesis. This chapter also considers theoretical approaches to learning from policy, and argues why evaluating policy experiences like the subsidy in Auckland may be important.

Chapter Five outlines the research methods used in this thesis. It begins with an explanation of the research approach and design, and the relation of this thesis to a wider research project. It then discusses the five studies used in this research, including the collection and analysis of data for each.

Chapter Six presents the results of this research. Findings are organised around three of the research objectives of this thesis, rather than by study. The section for each research objective first presents quantitative data, exploring either healthcare service utilisation or funding. It then expands on these findings using the perspectives of parents and general practitioners.

Chapter Seven discusses the consequences of the Auckland under-sixes subsidy on primary care services. It first discusses the key results of this thesis in relation to current health services research literature. It then discusses the implications of the subsidy when combined with the wider primary care system in New Zealand. A number of recommendations for improvement are made, and significance of the findings of this research in relation to a national directive of similar nature are then discussed. The strengths and limitations of this research, and future research directions are considered. Finally, it provides an overall conclusion to this thesis.
Chapter Two

Primary Care in New Zealand

Introduction
The purpose of Chapters Two to Four in this thesis is to outline the academic context and policy background into which this policy was introduced.

A subsidy for after-hours care for young children does not fit neatly into one area of healthcare literature. It spans across current discussion regarding both primary care and after-hours care, and can also be considered from a policy perspective. Furthermore, New Zealand’s unique health system is key to understanding possible consequences of its implementation.

Given the complex nature of this topic Chapters Two to Four integrate a literature review, and a summary of the current policy environment, relevant to the subsidisation of after-hours care in Auckland and any consequences that may occur. These chapters are ordered with the intention of flowing from the wider primary care context down to discussion of the specific initiative in Auckland that this thesis focuses on.

This chapter, Chapter Two, provides a general overview of the nature of primary care and describes primary care in New Zealand. The key elements of ‘strong’ primary care are described, and the competing priorities of these elements are discussed in the context of methods by which providers are paid.

An outline of the current primary care provision and funding system in New Zealand is also given. This will detail the ways in which providers are paid, and how this can lead to ‘clawback’ of capitation-based funding for primary care providers.

Primary Care
Primary care is described as the cornerstone of healthcare provision (Starfield, 1994; Starfield, 1998). In its simplest form, primary care is “first-contact, continuous, comprehensive and coordinated care provided to populations” (Starfield, 1994, p1). Primary care is usually provided in the community by a number of providers, including general practitioners (GPs), nurses, pharmacists and others (Bodenheimer & Grumbach, 2009; Starfield, 1998).

This care involves the prevention, diagnosis, treatment and follow-up of many health conditions. This is usually termed ‘routine’ medical care – although primary care does involve treatment of some acute conditions. Primary care should be available at the time of need, and so, while it is often provided within-hours (between 8.00am and 6.00pm on business days), it is also provided after-hours (DHB Shared Services, 2013; World Health Organization, 2014).
Primary care differs from secondary and tertiary levels of care in a number of characteristics. It usually focuses on common and less well-defined conditions, and patients have direct access to care. Secondary and tertiary care are characterised by providing specialised services for more uncommon (but higher needs) conditions, often in a hospital setting. Compared with these levels, primary care is generally less costly, requires fewer staff, and adapts more easily to changing societal health needs (Starfield, 1998). Much of the recent primary care literature focuses on the importance of a ‘medical home’. This term denotes a particular place (or practitioner) that is the source of primary care and navigates a patient through the other healthcare levels (Starfield & Shi, 2004).

The term ‘primary care’ can also differ from ‘primary healthcare’. Primary healthcare is an extension of primary care in that it includes goals such as health education, environmental sanitation, disease prevention, and community participation (Starfield, 1998; World Health Organization, 2007). For the purposes of this thesis, the term primary care will be used to refer to primary care services within the health system, rather than primary healthcare (Starfield, 1998).

**Key Goals of Primary Care**

Starfield (1994, 1998) contends that there are four key aspects to achieving strong primary care:

- First contact and access, where care is accessible and utilised at the time of need;
- Continuity of care, described as person-focused care over time;
- Comprehensiveness of services, which are broad enough to meet the needs of the population, and
- Coordination, care coordinated with other services and manages the patient’s journey.

These key goals are distinctive to primary care, and are more useful than empirical measures given that the delivery of primary care differs in many places (Starfield, 1994).

Of these goals, access to and continuity of care are important to the measurement of a particular service, or the effects of a policy on a service. They are also key goals of the current organisation of primary care in New Zealand (King, 2004). They will be thus focused on in more detail below.

**Access to Primary Care**

It is inherent in the different levels of healthcare that patients must ‘enter’ into this system each time they have a health problem. This may require access to the first level of entry, primary care. Access to healthcare is often focused on because it is the first step in receiving care. Without access, care will be delayed, and the patient’s health outcomes might be negatively affected (Starfield, 1998).

Penchansky and Thomas (1981, p128) define access as the “concept representing the degree of ‘fit’ between the client and the system”. Many agree that access is influenced by what services are offered, at what locations
and prices; thus the financing and organisation of a primary care system will greatly affect access. In turn, access to services affects both consumer satisfaction, and health outcomes (Ensor & Cooper, 2004; Roberts, Hsiao, Berman & Reich, 2004; Starfield, 1998).

There are multiple theories in the literature about how access works (Ricketts & Goldsmith, 2005). Roberts, et al. (2008) contend that two main facets of access include physical availability of services, and effective availability. Physical availability refers to the distribution of available services to the population; effective availability to how easy it is for patients to receive care (Roberts, et al., 2004). Roberts, et al. (2004) postulate that barriers to access arise when differences between these two concepts occur.

Barriers to access include cost, travel time, or inappropriate service delivery and similar hindrances that prevent people from using available services. These barriers can be at the demand or supply end of services. Those at the demand end include information on healthcare choices; consumer costs including co-payments, travel costs, or opportunity costs; preferences; and the price of other services (Ensor & Cooper, 2004). Assuming that patients only forgo using a service because of these access barriers, access can be measured by proxy by determining utilisation of a service (Roberts, et al., 2004).

One of the most commonly used theories of access is that of Penchansky and Thomas (1981, accessed from Ricketts & Goldsmith, 2005). They maintain that the dimensions of access, seen in Figure 1, are:

- **Availability**: the adequacy of supply of services available for a population;
- **Accommodation**: the organisation of the service in regards to how the service accepts clients, and the patient’s ability to accommodate these factors;
- **Accessibility**: the location of the service in relation to its patients, including distance and cost of travel;
- **Acceptability**: appropriateness of the service to the patient’s expectations and characteristics, and
- **Affordability**: the price of the services, what patients are required to pay for, and patients’ ability to pay.
User Charges and Access to Primary Care

A key element of access is the affordability of the service in terms of the financial ability of the population to use healthcare services, given their price (and perceived value) (Penchansky & Thomas, 1981).

Affordability of services depends on a number of characteristics including income, education, medical knowledge, preferences, travel costs, and opportunity cost, all of which influence demand for the service. Of course it also includes any user charges for the service, which is a form of cost-sharing (Ensor & Cooper, 2004).

Cost-sharing of healthcare costs is often used to protect individuals from the financial risks of ill health. Cost-sharing with a third party payer can take many different forms, from no cost-sharing (the patient paying the total cost out of pocket) through to complete cost-sharing and no user charges (Robinson, 2002). The term user charges covers the variety of levels at which healthcare consumers can be charged for their care at the point of service (Creese, 1991; Glied & Smith, 2011). User charges are usually in the form of a co-payment, which is a flat fee or charge per service (Glied & Smith, 2011).

Most research argues for two key reasons to introduce a co-payment for a health service: to reduce demand for unnecessary healthcare, which can occur if services are provided free at the point of care (often referred to as the moral hazard argument), and to provide additional revenue for governments (Ashton, 1992; Creese, 1991; Olsen, 2009; Robinson, 2002).

Evidence shows that introducing a co-payment for health services will reduce the quantity demanded (Ashton, 1992; Creese, 1991; Lohr, et al., 1986; Olsen, 2009; Robinson, 2002). It is argued that this works by making
patients more aware of the costs of services, discouraging them from using services when they judge them to be of less value than the price charged (Ashton, 1992; Robinson, 2002).

However, studies like the RAND Health Insurance Experiment (Keeler, 1992; Leibowitz, et al., 1985; Newhouse, 1993; RAND Health, 2006) show that, while co-payments limit demand for unnecessary care, they are also significant barriers to using needed medical care. This can have an adverse effect on health outcomes (Glied & Smith, 2011; Robinson, 2002). User charges may also encourage unnecessary use of fully subsidised services, such as those provided in hospital Emergency Departments (Glied & Smith, 2011).

Low-income and high-needs groups are most likely to be affected by user charges (Glied & Smith, 2011; Robinson, 2002). Access for young children is significantly reduced; in fact, children are much more likely to have care delayed due to user charges than adults are (Leibowitz, et al., 1985).

However this effect can be mediated by subsidies for disadvantaged groups (Glied & Smith, 2011).

**Subsidisation**

Subsidisation is one way in which affordability and thus access can be improved. User charges may be lowered for some groups, or groups may be completely exempt from charges. Some subsidies may even make services free at the point of use (Glied & Smith, 2011; Robinson, 2002).

Subsidies can be applied universally to all groups, or only some groups. Often, subsidies are utilised only for some groups who may otherwise be disadvantaged, in order to improve equity (Glied & Smith, 2011; Robinson, 2002). However, identifying subsidised groups at the point they use the service can be difficult, unless the inclusion criteria are easily identifiable. There are also issues raised about how to choose inclusion cut-offs, and whether subsidies should target those with low-incomes, chronically ill, or high-needs age groups (Glied & Smith, 2011).

Looking specifically at primary care, there is evidence across many counties that user charges reduce the utilisation of primary care, and that removal of charges (making primary care services free at the point of use) increases utilisation (Barnett, Coyle & Kearns, 2000; Glied & Smith, 2011; RAND Health, 2006). This supports the argument that subsidies can increase access to primary care. This may consequently be associated with better health outcomes (Glied & Smith, 2011). There is also some New Zealand-specific evidence showing that targeted primary care subsidies increase utilisation of primary care – particularly if the subsidy reduces the cost to free (Barnett, Coyle & Kearns, 2000; Cumming & Mays, 2011). However, this research also found that uptake of the subsidy is limited by patients’ awareness of the subsidy (Barnett, et al., 2000).

Subsidies that make care free at the point of use are the most effective for increasing utilisation of services by children (Leibowitz, et al., 1985).
Continuity of Primary Care

Continuity of care is another of the four aforementioned goals, which Starfield (1998) argues is necessary for strong primary care. Continuity of care results when a patient continues to see the same healthcare provider over time. This fosters a relationship between the patient and the healthcare provider, so that there is knowledge of the patient’s history, needs, and preferences. The development of mutual trust also allows greater involvement of the patient in decisions made about their care (Blumenthal, Mort & Edwards, 1995; Jatrana, Crampton & Richardson, 2011).

It is argued that this improves the quality of care received by the patient, and better health outcomes (Blumenthal, et al., 1995; General Practice NZ, 2012; Jatrana, et al., 2011). Those without a source of primary care are more likely to delay necessary care, be hospitalised, and have subsequent mortality. They also tend to cost the health system more (Starfield et al., 2005).

The key aspects to continuity of care are information about past medical history and personal circumstances, consistent management of the condition, and an ongoing therapeutic relationship (Department of Health, 2006a). Promoting continuity of care is one reason why it is argued that a medical home is important for the patient, as it allows for all three of these aspects to be met (Starfield & Shi, 2004).

Trade-offs Between Access and Continuity

Often in primary care provision there is a tension between providing timely access to care, and having good continuity of care. This can occur if a patient sees a different provider after-hours, when their normal provider is not open, or when they are unable to get an appointment with their normal provider (Department of Health, 2006a).

While there is very little research available on this topic, one study by the United Kingdom Department of Health (2006a) found that patients are aware of the clash between relationship continuity and having quick access to care. In general, patients’ decisions are most influenced by wanting relationship continuity for long-term problems, while they prefer quick access for a minor or short-term issue (Department of Health, 2006a).

Many patients also expect that there is a continuity of medical information in that if they go to another provider, they expect their normal provider will receive and read those records. However, this is often not the case. Parents of children and older people tend to place a higher value of continuity of care than other groups (Department of Health, 2006a).

These findings show that trade-offs often occur in a patient’s choices between access to care, and continuity of care.
Paying for Primary Care: Capitation and Fee-For-Service

There are many ways in which primary care providers can be paid for their services, with different advantages attached to different methods. Two of these methods are capitation-based funding, and fee for service (FFS) based funding, both of which are discussed below (Glied & Smith, 2011). Both these forms have advantages and disadvantages. This is because the ways in which providers are paid provide different incentives for different behaviour (Crampton, Sutton & Foley, 2002; Gosden, et al., 2000; Guinness & Wiseman, 2011; Ma, 2006; Roberts, et al., 2004).

In New Zealand, GPs are mostly paid for their services by capitation, as well as often charging a user co-payment (a FFS) (Cumming & Mays, 2011).

**Fee for Service Funding**

FFS funding is where payments are made to a primary care provider for every service or unit of care they provide. The provider is then retrospectively paid after making a claim for providing that service. The fee level is usually a set amount, which often depends on the type of service provided, and other sources of income. FFS funding provides an incentive for providers to deliver more care in order to bring in more income (Gosden, et al., 2000; Robinson, 2006).

FFS does not provide an incentive to deliver preventative care because this will limit the amount of service the patient needs in the future. It also discourages referral to other services, as the provider wishes to retain the patient so as to increase their income. This does not encourage integration and co-operation between primary care providers (Robinson, 2006). The incentive to over-treat can also result in a low level of cost-containment for the system as a whole. There may also be high administration costs as a claim has to be submitted for every service provided (Gosden, et al., 2000).

As the FFS method of funding provides an incentive to deliver more care, it can lead to supplier-induced demand. This is where the patient receives more care than is necessary or they would have demanded, if they had the same level of knowledge as the provider (Gosden, et al., 2000; Robinson, 2006). This can also be termed over-servicing (Gosden, et al., 2000). However, it also promotes providing as many services as possible and increasing access, whereas other funding methods may not. This includes after-hours care (Guinness & Wiseman, 2011).

In New Zealand, patients are often required to pay a co-payment on a FFS basis, i.e. pay a set amount of money per visit to their primary care provider. This essentially ‘tops up’ the level of funding received for that patient under the capitation-based funding system (Cumming & Mays, 2011).

**Capitation Funding**

Capitation is mostly simply described as payment on a per-person basis. A fixed amount is paid for all the services that a person may use in a specific time period, such as a year. This is a prospective method of funding (Roberts, et al., 2004). Often a fixed amount is paid to a healthcare provider for each period a patient is
enrolled with that provider, and the fixed amount reflects that person’s characteristics such as age, gender, and health status. These characteristics are used as a proxy to reflect that person’s projected service use (Roberts, et al., 2004).

Capitation-based funding was introduced in New Zealand as part of the Primary Health Care Strategy (King, 2001. The aim was to encourage preventative healthcare and services specific to the enrolled population’s needs (Ministry of Health, 2004a). The use of capitation as a population-based method of funding is only one way to distribute funding from DHBs to primary care providers (Crampton, et al., 2002).

Research suggests that capitation, in comparison to other forms of paying providers, may encourage differences in utilisation of primary care services (Crampton, et al., 2002; Gosden, et al., 2000; Guinness & Wiseman, 2011). A Cochrane systematic review in 2000 (Gosden, et al.) found that, in comparison to paying providers by FFS, capitation may encourage providers to provide a lower quantity of services. Guinness and Wiseman (2011) argue that this is because there is no incentive for providers to over-supply or induce demand for their services. Conversely, this system also encourages larger numbers of enrolled patients, resulting in a large workload for those working at the primary care provider. This may minimise the amount of time general practitioners are able to spend with each patient. Therefore, it is argued that capitation-based funding can cause under-treatment and affect quality of care (Gosden, et al., 2000; Guinness & Wiseman, 2011).

Capitation-based funding may also incentivise providers to have a large number of enrolled patients in order to increase income. Providers may try to avoid enrolling patients who require complex care, such as those with chronic diseases, as these patients will require a higher level of resource than other patients. This is known as cream-skimming, a form of risk selection (Gosden, et al., 2000; Guinness & Wiseman, 2011; Matsaganis & Glennerster, 1994; Olsen, 2009). Ellis (2006) argues that, not only does capitation incentivise providers to cream-skim, it also promote skimping (where complex patients are not provided the high levels of services they need), and patient dumping (the explicit avoidance of high-needs patients by refusing to enrol or disenrolling them). This occurs so that providers can provide the lowest level of services possible for the set level of income their capitation funding brings in (Gosden, et al., 2000; Guinness & Wiseman, 2011; Matsaganis & Glennerster, 1994; Olsen, 2009). It is also argued that these practices are particularly likely if the provider is funded completely by capitation, and does not receive any FFS funding (Barros, 2006; Ellis, 2006). Thus cream-skimming and dumping can be avoid if funding systems use both capitation and FFS methods (Newhouse, 1996).

This practice can also be overcome by adequate levels of capitation for different groups of patients (based on their likely service use). This has been used in the New Zealand capitation-based funding system. Under this system, groups who are judged to require more care, such as children, bring in a higher level of capitated payment than others (Cumming, 2000; Cumming & Mays, 2011).

A strong advantage to capitation is continuity of care between the provider and the patient (Gosden, et al., 2000; Guinness & Wiseman, 2011; Shimmura, 1988). Given that patients are required to enrol with one primary
care provider, then all primary care is provided by the same practice or general practitioner, who can establish a relationship with the patient over time (Gosden, et al., 2000).

It is also argued that capitation encourages the provision of prevention and health-promotion services because the provision of preventative care will reduce future care being required by the patient (Gosden, et al., 2000; Olsen, 2009). This was a key aim of the introduction of the capitation-based funding system to pay PHOs in New Zealand (Langton & Crampton, 2008). However, there is a lack of comprehensive evidence to support this argument for capitation (Shimmura, 1988). Shimmura (1988) contends that GPs paid by capitation are focused on providing curative care. Evidence shows that GPs remunerated on a fee-for-service basis tend to perform more preventative services because they are paid extra (Shimmura, 1988).

Capitation is a prospective form of payment; the primary care provider is paid in advance of any care provided. This may encourage the provider to contain costs by increasing the productive efficiency in the way care is provided (Guinness & Wiseman, 2011; Olsen, 2009). However, this may also result in services being limited and patients being under-treated (Gosden, et al., 2000; Guinness & Wiseman, 2011).

For those funding the primary care service, for example DHBs in New Zealand, capitation is advantageous in that the overall cost for services is predictable and limited (Cumming, 2000; Guinness & Wiseman, 2011; Olsen, 2009). However, from the perspective of primary healthcare providers, capitation can present some risk as it is a prospective payment (Goodson, et al., 2001; Kriechbaum, 2006; Roberts, et al., 2004). If enrolled patients develop a high-cost illness or need a greater level of care than expected, then the practice could have financial loss. This creates the incentive to try to attract healthy or low-risk patients (known as risk selection) or to influence clinical decision-making. This is particularly relevant when clinicians pool financial risk in running their practice (Goodson, et al., 2001; Roberts, et al., 2004).

As described earlier, different levels of payment are often used to mitigate the risk to physicians from capitation (Cumming, 2000; Goodson, et al., 2001). However, these levels may not be sufficient to protect against variation in the care needed by enrolled patients or capitated payments may be unpredictably reduced (Goodson, et al., 2001). This is a particular risk to providers paid by capitation. If enrolled patients use multiple services, capitation payments can be cut at a set amount determined by the funder. This is termed clawback (loss) of capitated funding (Kriechbaum, 2006). This may mean that the costs incurred by the primary care provider are outside their control, exposing them to a high level of risk (Robinson, 2006).

Given the risk that clawback of capitated funding poses to budgets, primary care providers might be further motivated to only select patients who do not attract clawback of funding – using cream-skimming or dumping methods (Ellis, 2006; Roberts, et al., 2004). This may result in patients having difficulties in accessing primary care, which was a key goal of implementing capitation-based funding in New Zealand (Crampton, et al., 2002; Cumming & Mays, 2011).
Using Capitation and FFS

As argued by Newhouse (1996) and others, it is advisable to use both capitation and FFS funding systems in some form to fund primary care providers. This reduces the likelihood of cream-skimming and dumping, and allows the advantages of the incentives of one form to overcome the disadvantages of the other (Barros, 2006; Ellis, 2006; Newhouse, 1996). This could be in the form of capitation from a central fund plus a direct FFS payment from the patients, as is seen in New Zealand (Barros, 2006; Cumming & Mays, 2011). However, it could also be in the form of a supplementary fee per service provided from the same funder as the capitation. While there are higher administration costs associated with this blend of funding forms, it also limits some of the disadvantages inherent with both FFS and capitation (Robinson, 2006).

However, despite the incentives that the different methods provide, even the most sophisticated methods of funding will not be perfect (Robinson, 2006). Payment incentives can fail for a variety of factors. These factors included poor complementarity of design across different health services, such as factors that promote cost-shifting from one service to another. It may also include institutional impediments inherent in the health system, such as integration between services. Unless these factors are addressed, the intended effects of the funding system will be diluted or neutralised. Thus policy-makers need to address these factors when focusing on the primary care funding method in their country (Langenbrunner & Liu, 2005).
The National Primary Care Policy Context

Primary Health Organisations
The New Zealand health system has gone through many changes to its organisation over the past three decades. One such reform was to the delivery of primary care following the publication of the *Primary Health Care Strategy* in 2001 (Ashton, 2005; King, 2001). The aim of this strategy was to improve health and to reduce inequalities in the health outcomes of New Zealanders. It involved an increase in funding to primary healthcare and, significantly, the establishment of Primary Health Organisations (PHOs) (Cumming & Gribben, 2007; King, 2001).

PHOs were established to require GPs and other primary care providers to group together to deliver primary care, in return for government funding (King, 2001). PHOS are:

Funded by district health boards (DHBs) for the provision of a set of essential primary health care services to those people who are enrolled. At a minimum, these services will include approaches directed towards improving and maintaining the health of the population, as well as first-line services to restore people’s health when they are unwell (King, 2001, p5).

The essential primary health services funded are referred to as ‘first level services’. First level services restore health through the provision of health information, urgent medical and nursing services, assessments of presenting problems, recommendations and undertaking of treatments, and referrals to other health services (DHB Shared Services, 2013).

The following section will describe the system to fund PHOs based on their enrolled population. However PHOs are not necessarily required to distribute funding in this way to the primary care providers they contract with, such as general practitioners (Crampton, Sutton & Foley, 2002).

Capitation-Based Funding
The introduction of the *Primary Health Care Strategy* in 2001 affected not only the delivery of primary care services but also the method of funding used to subsidise their delivery (Ashton, 2005). Capitation-based funding was introduced under this Strategy. As discussed earlier, PHOs receive a set amount of funding for first level services from the government based on the number and characteristics of their enrolled population (Crampton, et al., 2002; Health and Disability Auditing New Zealand Limited, 2013). PHOs also receive additional funding for other functions; this will be described further in this section (DHB Shared Services, 2013; Health and Disability Auditing New Zealand Limited, 2013).

Capitation-based funding ensures that PHOs are paid based on their enrolled population, and not on the number of individual visits that patients make to the primary care provider they contract with (such as a GP) (Ministry of Health, 2004a; Ministry of Health, 2013a). The aim of this system is to encourage proactive
healthcare that is tailored to the local community (Ministry of Health, 2004a). Capitation also aims to encourage a multi-disciplinary, team approach to primary healthcare and promote providers to focus on wellness as opposed to sickness (King, 2001).

The generic PHO Service Agreement (DHB Shared Services, 2013) outlines capitation-based funding. This document is a contract between PHOs and the DHB they sit under in the funding scheme. It is also a contract that serves to put into effect the primary care provision responsibilities DHBs have with the Ministry of Health (Dr Diane Scott Ltd V South Canterbury District Health Board, 2012; Ministry of Health, 2012b).

**The Capitation-Based Funding System**
The Ministry of Health manages the capitation-based funding system through HealthPAC (formerly Health Benefits). The system is as follows:

1. PHO collects information on enrolled patients from each of their contracted providers. This information must reach the specifications laid out in the contract between that PHO and their DHB.
2. PHO combines this into a single document, which is sent to HealthPAC via the Health Intranet.
3. HealthPAC analyses and verifies this information.
4. The PHO’s capitation payment is calculated using current capitation formulae.
5. Subject to the approval of the relevant DHB, a capitation payment is then paid in monthly instalments to the PHO.
6. The information regarding enrolments and payments is returned to the PHO, who distribute it to their contracted providers in report form. This includes a report on additional forms of payment the PHO receives other than capitation.
7. This process is repeated every three months.

(Ministry of Health, 2004b).

**Calculation of Capitation-Based Funding**
Capitation rates are often adjusted to allow for changes to the cost of providing primary care or to promote schemes the Ministry of Health deems of high priority. Capitation funding is calculated individually for each enrolled patient and then totalled for each Practice and PHO. This is based on each patient’s demographics including:

- age (6 groupings: 0-4, 5-14, 15-24, 25-44, 45-64, 65+);
- gender;
- ethnicity (2 groupings: ‘Māori or Pacific’ and ‘Other’) 
- deprivation (2 groupings: NZ Deprivation Index Deciles 1-8 and NZ Deprivation Index Deciles 9-10);
- High Use Health Card status; and
- Community Services Card status (for services delivered other than by Access Practices).

(DHB Shared Services, 2013).
Rates also take into account whether the practice the patient is enrolled with is an Access Practice. These are general medical practices that meet specific requirements by the Ministry of Health (DHB Shared Services, 2013).

**Other Forms of Capitated Funding**

On top of funding for first level services, DHBs also pay PHOs by capitation for schemes that aim to promote health or improve access to primary healthcare for high needs groups (DHB Shared Services, 2013).

One of the most relevant schemes to this research is the ‘Zero Fees for Under 6s’ scheme. This is an additional payment to practices that commit to offering free consultations (within business hours) to all children aged under six years old. The scheme supports national consistency in the cost of primary healthcare for children aged under six (Ministry of Health, 2011a). This scheme is also voluntary. However, general practices receiving the Very Low Cost Access (VLCA) payments cannot receive this payment as well (DHB Shared Services, 2013; Ministry of Health, 2011a). In March 2013 the Minister of Health, Tony Ryall, stated that only 47 general practices in New Zealand still charge fees for children aged under six, out of a total of 1,051 (Ryall, 2013a).

Other than this scheme, Health Promotion payments are made depending on the deprivation and ethnicity of enrolled patients, to support health-promotion activities in the local population. Practices also receive funding based on their locality; if a practice is rural then it receives an extra payment to support the retention and recruitment of health professionals (DHB Shared Services, 2013).

Other schemes include Services to Improve Access (SIA) funding, which is paid to PHOs to support the reduction of health inequalities of high needs groups such as Māori, Pacific and those living in the most deprived areas. VCLA payments are also given to PHOs for practices that charge a low level of co-payment for their services (Ministry of Health, 2011c).

Further funding is paid on a capitated basis for other Ministry of Health schemes such as Care Plus, an initiative that targets patients with chronic conditions, acute medical or mental health needs, or terminal illness (Ministry of Health, 2011d).

The current rates for all forms of capitation can be seen in Appendix 1.

**Capitation and Contracting with Primary Care Providers**

Although primary care policy results in PHOs being paid by capitation, practices and providers do not necessarily need to be paid like this. This decision is up to each PHO, practice owners, practitioners, and managers (Cumming & Gribben, 2007; King, 2001).

Primary care practices and providers also usually levy some level of user charge for their services. This results in practices being paid through a mix of private and public funding types (Cumming & Gribben, 2007).
**Other Forms of Payment for Services**

As stated in the *PHO Service Agreement* (DHB Shared Services, 2013), PHOs and the providers they contract with have other forms of income. This includes the right for PHOs and their contracted providers to charge service users (subject to some conditions), and the funding PHOs receive for management fees from DHBs (DHB Shared Services, 2013).

PHOs are also able to claim for funding for the selected services that DHBs pay for on a fee-for-service basis. This includes immunisation services, and General Medical Services provided to casual users (DHB Shared Services, 2013).

**'Clawback' of Capitation Funding**

'Clawback' of funding describes the process where primary healthcare providers, who are paid by capitation for the provision of first level services, have to pay back a portion of this funding when a patient registered with them attends another primary healthcare provider (Kriechbaum, 2006). For example, if a patient registered to a primary care practice attends an after-hours care clinic, the practice where they are registered is required to pay back a portion of their annual capitation for that person.

Capitation clawback is described in *PHO Service Agreement* (DHB Shared Services, 2013) as “deductions to capitation payments for first level services delivered to enrolled persons” (DHB Shared Services, 2013, p57). If a primary care provider sees a patient enrolled elsewhere, they are entitled to claim a fee for the service for the ‘General Medical Service’ they have provided to an eligible person who is not enrolled with them (a casual user) (DHB Shared Services, 2013).

Deductions to capitation then occur once the claim for that service is submitted by the provider to HealthPAC (Ministry of Health, 2004a). Deductions are taken from that PHO’s capitation payments at the next monthly payment, and are the same regardless of which provider makes the claims (DHB Shared Services, 2013).

This is at a rate set out in General Medical Services Payment schedule, which can be seen in Table 1.
Table 1: Clawback of Capitation Rates, Based on General Medical Services Payment Schedule

<table>
<thead>
<tr>
<th>Patient Category</th>
<th>Fee per Medical Consultation ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A child, under 6 years of age</td>
<td>$31.11</td>
</tr>
<tr>
<td>Holder of current Community Services Card</td>
<td>$13.33</td>
</tr>
<tr>
<td>A child, 6 years of age or over, of a holder of a Community Services Card</td>
<td>$17.78</td>
</tr>
<tr>
<td>Holder of current High Use Health Card who is not a child</td>
<td>$13.33</td>
</tr>
<tr>
<td>A child, 6 years of age or over, who is a holder of a High Use Health Card</td>
<td>$17.78</td>
</tr>
<tr>
<td>A child, 6 years of age or over, who is not within Community Services Card or High Use Health Card categories above.</td>
<td>$13.33</td>
</tr>
</tbody>
</table>

(DHB Shared Services, 2013, p58).

As can be seen in this table, no deduction is made for adults who do not hold a Community Service Card or High Use Health Card attending practices as a casual user (DHB Shared Services, 2013).

Each deduction for children aged under six ($31.11) is around 5% of the yearly capitation-based funding amount for most children aged under six (Ministry of Health, 2013b).

Deductions to capitation will not occur if the claim is the fourth or more claim made for that patient in that month (the stop loss function) (DHB Shared Services, 2013).

Primary care providers who are subject to clawback are then given a monthly report on their enrolled patients who were provided with first level services as a casual user. The aim of this report is to help providers to minimise any future deductions, which might be made by a provider who is not part of their PHO. However, nothing further is noted in the PHO Service Agreement about how providers might go about this (DHB Shared Services, 2013).

Clawback does not occur if the consultation service is paid for under another fee, benefit, or subsidy such as those for immunisation, maternity services, or as a result of personal injury (as this falls under the funding mandate of the Accident Compensation Corporation).

Chapter Overview

This chapter has given an overview of primary care, and has detailed why access may be adversely affected by high user charges. It has also noted that targeted subsidisation of healthcare can increase access. In particular, access and continuity of primary care are positive goals to aim to achieve, as is affordability (of access). It can also be argued that cream-skimming, patient dumping and practices are negative consequences that can occur as a result of payment systems. This chapter has also described why New Zealand has a capitation-based funding system, which may be affected by clawback if patients use other services such as after-hours services.
Overall this chapter has described where a subsidy for after-hours care for children aged under six sits within the primary care literature and New Zealand context. This relates to the fourth research objective of this thesis, to identify the implications of the Auckland under-sixes subsidy when combined with other primary care policies in New Zealand.

The following chapter, Chapter Three, will outline the after-hours care provision environment in New Zealand, including the relationship it has with primary care and primary care providers such as GPs.
Introduction

This chapter outlines what after-hours care is, why access to it is particularly important, and discusses the provision of after-hours care in New Zealand. This section considers the after-hours primary care context; this excludes care provided in a hospital Emergency Department. This chapter describes current contentions in New Zealand around what services after-hours care should provide, and by whom.

Finally, this chapter discusses current literature regarding urgent and routine primary care, why both should be provided after-hours, and how patients choose between different services.

The aim of this chapter is to provide a context for the implementation of an initiative to improve access to after-hours care in New Zealand.

After-Hours Primary Care

Definition

There is currently no agreed definition of after-hours primary care in New Zealand.

Many DHBs use the definition that “after-hours primary health care is designed to meet the needs of patients which cannot be safely deferred until regular or local general practice services are available” (After-Hours Primary Care Working Party, 2005, section 2.2, p2). However, it is argued that this definition is not clear about what constitutes “regular” hours, and how services with extended hours can be distinguished from those providing after-hours services (Controller and Auditor-General, 2010).

Therefore, a more distinct definition may be “services for urgent or acute needs, and services that one might expect to receive from a GP, available at times when a patient might expect reduced access to their GPs” (After-Hours Primary Care Working Party, 2005, section 2.2, p2). Reduced access to GPs usually occurs outside 8.00am to 6.00pm on business days (DHB Shared Services, 2013).

Importance of Access to After-Hours Care

“Services for urgent or acute needs” delivered in an after-hours setting form a crucial part of healthcare services in New Zealand. Access to timely after-hours care ensures that medical conditions that could be treated in a primary setting are prevented from worsening to the point where more acute care is needed, such as care provided in hospital EDs or inpatient wards (Controller and Auditor-General, 2010; Working Group for Achieving Quality in Emergency Departments, 2009).
Given that acute care provided in secondary and tertiary settings is more costly to the health sector, health spending is minimised if patients receive care when possible in a primary setting. From a clinical perspective, health outcomes are often worsened when patients do not receive care immediately and become distressed (After-Hours Primary Care Working Party, 2005; Controller and Auditor-General, 2010; King, 2001).

Aside from the reasons to promote access to after-hours care for all patients, access to after-hours care is particularly important for children under the age of six. As described in Chapter One, access to healthcare in early childhood promotes child, and lifelong, health (Fancourt, et al.; King, 2001; Public Health Advisory Committee, 2010; Ryall, 2011). Yet the health of New Zealand children is poor when compared internationally, particularly in the incidence of diseases which are preventable if children have access to primary care (Fancourt, et al., 2010; Jaine, et al., 2008; OECD, 2009; Public Health Advisory Committee, 2010).

After-hours primary care for children is particularly important as the after-hours period can be crucial to the health of young children. Many childhood illnesses, such as respiratory diseases, deteriorate during the evening. Other acute illnesses, such as infectious diseases, have higher prevalence among children in New Zealand and can have a rapid onset, which may occur after-hours (Baker, et al., 2012; Fancourt, et al., 2010). Furthermore, many families may only be able to access primary healthcare after-hours due to work or transport constraints (Fancourt, et al., 2010).

**After-Hours Primary Care in New Zealand**

**An Introduction to New Zealand’s After-Hours Primary Care Environment**

New Zealand has a unique environment to how after-hours care is provided in its urban centres. In order to meet growing patient needs for after-hours care and contain health system costs, after-hours primary care for patients became increasingly provided in a primary care setting. Accident and Medical clinics (A&Ms) are one way the New Zealand health system has evolved to provide after-hours primary care. In the late 1980s, A&Ms were developed and offered consultations with an appointment and longer opening hours than normal general practice (Hider, Lay-Yee & Davis, 2007; Tenbensel, et al., 2013; Verstappen, 2011). These clinics differed from ‘walk-in clinics’ offered in other countries, which relied on GP collaborations. Instead, the New Zealand A&Ms were commercial entities, which employed GPs of their own and exist outside of the PHO structure (Hider, et al., 2007; Verstappen, 2011). This unique context will be discussed further in this thesis.

The development of A&Ms has since led to the emergence of a new medicine speciality of Urgent Care physicians (formerly called Accident and Medical physicians) who work primarily in A&Ms (College of Urgent Care Physicians, 2011). The development of A&Ms has also allowed patients to choose between attending their GP for care, or an A&M (Verstappen, 2011).
Responsibility for the Planning and Provision of After-Hours Care

There has been some contention about the responsibility of different Crown agencies to ensure access to after-hours care. As there is no national direction as to how DHBs should provide after-hours care, DHBs have all responded differently to the issue in their area (After-Hours Primary Health Care Working Party, 2005; Fancourt, et al., 2010). This has led to significant inconsistency across New Zealand in how after-hours care is provided (After-Hours Primary Health Care Working Party, 2005).

The only national guidance for after-hours care provision is included in specific funding agreements. According to the 2013/2014 Service Coverage Schedule negotiated with each DHB as part of the Crown Funding Agreement (under section 10 of the New Zealand Public Health and Disability Act 2000), after-hours services are expected to be available within 60 minutes’ travel time for 95% of a DHB’s population (Ministry of Health, 2013c). However, no further requirements are given.

The requirements for DHBs set by the Ministry of Health flow down to the Primary Healthcare Organisation (PHO) Service Agreements between PHOs and the DHB(s) they work with (DHB Shared Services, 2013). These specify in further depth the requirements of primary care providers. PHOs must “provide access to First Level Services on a 24-hour a day, 7 day a week basis for 52 weeks a year” (DHB Shared Services, 2013, p56). As in the DHB Service Coverage Schedule, these services must again be available within 60 minutes’ travel time after-hours for 95% of the population (and within 30 minutes during regular hours) (DHB Shared Services, 2013). All PHOs are also required to ensure that, if their contracted providers are unable to provide after-hours urgent care services, they must put in place alternative arrangements (DHB Shared Services, 2013).

However, under the PHO Service Agreements, there is no clause stating whether general practice members of PHOs are required to fulfil these conditions as well. This issue was scrutinised in 2012 in a court case titled Dr Diane Scott Ltd V South Canterbury District Health Board (2012). In 2011 a group of GPs in Temuka applied to the High Court for an injunction against South Canterbury DHB and South Link Health (a PHO in the area) because the DHB and PHO had held back capitation funding after the GPs stopped providing after-hours services. The GPs involved had a ‘back-to-back’ agreement with South Link Health, which (like the PHO Service Agreement) required them to provide “access to first level services on a 24 hour a day, 7 day a week basis for 52 weeks a year for all service users” (Dr Diane Scott Ltd V South Canterbury District Health Board, 2012, pp17-18). This case found that the responsibility to provide after-hours services lies with all GP members, if there is a ‘back-to-back’ agreement with their PHO (which replicates the agreement between PHOs and DHBs), despite any contention over funding and the sustainability of providing such a service. However, GPs have no responsibility to provide after-hours services if there is no ‘back-to-back’ contract in place. The After-Hours Primary Health Care Working Party report (2005) found that not all PHOs have ‘back-to-back’ agreements in place with their GP members. Some GPs thus face no penalties for not contributing to after-hours care provision, which is contentious among the other GPs who do provide after-hours care (After-Hours Primary Health Care Working Party, 2005).
Also part of the 2013/2014 Service Coverage Schedule is the expectation that DHBs are required to work with PHOs to ensure access to Essential Primary Health Care services at low or reduced cost to their enrolled populations according to fees that they notify to the DHB (Ministry of Health, 2013c).

Current Arrangement of After-Hours Care in Auckland

In Auckland, and the rest of New Zealand, after-hours care is provided either by primary or secondary and tertiary providers. Primary healthcare is provided after-hours by GPs, usually privately for-profit. Secondary after-hours care is generally provided within a hospital setting (Tenbensel, et al., 2013).

Accident and Medical Clinics

As outlined in the Evaluation of Auckland Regional After-Hours Network and the After-Hours Initiative (Tenbensel, et al., 2013), A&Ms are a key to the provision of after-hours services in Auckland. These services provide walk-in general medical services (primary services), and usually have X-ray services (Hider, Lay-Yee & Davis, 2007; Tenbensel, et al., 2013).

In general, A&Ms operate separately from PHOs. Their patients are defined as casual users and they cannot receive capitation-based funding for services they provide. However, A&Ms can claim a General Medical Service fee-for-service for patients who have a Community Services or High Health Use Card, or are under 18 (Controller and Auditor-General, 2010; DHB Shared Services, 2013). Thus A&Ms generally charge patients a co-payment, the level of which is dependent on patient eligibility for the GMS subsidy (DHB Shared Services, 2013).

A&Ms also receive funding from the Accident Compensation Corporation (ACC) for accident-related services. To receive this funding A&Ms must meet certain requirements, which include being open until 8.00pm and operating a triage system. As a result, co-payments for ACC eligible patients are often significantly lower than for patients requiring medical consultations (Controller and Auditor-General, 2010).

In the greater Auckland region there are over 20 A&Ms (this number varies slightly depending on how an A&M is defined). The opening hours of these clinics vary. Some are open until 8.00pm, some later, and four clinics are open overnight (Tenbensel, et al., 2013).

Auckland A&Ms generally operate as private, for-profit independent entities, which employ their own staff (either on contract or salary), including urgent care physicians. This model of service provision is usually only sustainable in large urban areas, which is why there are a number operating under this model in Auckland (After-Hours Primary Health Care Working Party, 2005).

Some A&Ms also operate on a roster system, with GPs sharing after-hours care responsibilities for their enrolled patients (Controller and Auditor-General, 2010).
Some general practices in Auckland also offer after-hours services. If patients are enrolled with this practice then this service is technically funded under capitation-based funding (often plus a co-payment), otherwise a patient is a casual user (Tenbensel, et al., 2013).

**Emergency Departments**

In greater Auckland after-hours services are also provided by Emergency Departments (EDs) at Middlemore Hospital, Auckland Hospital (which includes Starship children’s hospital), North Shore Hospital, and Waitakere Hospital. These all offer 24-hour services. Services are free at the point of use, even if they could be provided through routine primary care (After-Hours Primary Health Care Working Party, 2005; Tenbensel, et al., 2013). This is funded by each hospital’s respective DHB (Controller and Auditor-General, 2010).

The After-Hours Primary Health Care Working Party report (2005) raises the idea that equity issues arise from the provision of free primary healthcare services in EDs. People living rurally, away from EDs, may not have the choice to attend free ED services and have to pay for after-hours care elsewhere (After-Hours Primary Health Care Working Party, 2005).

**What Should After-Hours Primary Care Cover?**

As well as contention about who has responsibility for providing after-hours primary care, there has been some discussion by bodies representing health professionals about what services it should cover.

The New Zealand Medical Association (NZMA) is an organisation that represents medical doctors from different specialties. In their position statement on after-hours primary healthcare provision, the NZMA outlines that all patients should have access to high-quality and timely primary healthcare. The statement goes on to discuss the NZMA’s stand-point on general practice obligations for providing after-hours care. In particular, they argue that after-hours care is to be provided to cover situations of urgent need. While this statement applies to the responsibilities of GPs providing after-hours care for their patients, it raises the issue of whether after-hours care should provide the same level of service as general practice services provided within working hours (NZMA, 2007).

Another position statement, from General Practice NZ (GPNZ), also reflects the idea that primary care services that provide after-hours care should serve different needs from general practice services within working hours. GPNZ represents the interests of approximately 2,000 general practitioners and 2,000 practice nurses across New Zealand. GPNZ’s position statement on free after-hours services for children aged under six maintains, among other statements, that:

> Local arrangements should implement a consistently applied (telephone or face-to-face) triage process to determine eligibility for a subsidy based on the need for urgent care. It would be inappropriate (and
costly) to apply this subsidy for routine, non-urgent checks performed at an after-hours facility funded under these arrangements. (General Practice NZ, 2012, p1).

Both of these position statements introduce the idea of urgent care, and how it differs from routine care. However, neither discusses what constitutes urgent care.

**Urgent and Routine Primary Care**

There is little mentioned in current literature about the difference between urgent primary care and routine primary care. Much of the literature focuses on comparing primary care with urgent care provided in hospital EDs.

Patients who present at Emergency Departments for problems that could be treated in a primary care setting, such as by their GP, are often termed as ‘inappropriate’ attendances (Elley, Randall, Bratt & Freeman, 2007; Gill, Reese & Diamond, 1996; Lang, et al., 1996). One retrospective case study based in New Zealand found that nearly 37% of attendances in ED could be termed ‘inappropriate’ by some providers (Elley, et al., 2007).

However, there is little consensus among health professionals about what an ‘inappropriate’ attendance is – and how this should affect service eligibility (Gill, Reese & Diamond, 1996; Murphy, 1998; Richardson, Ardagh & Hider, 2006). These patients often access Emergency Department (ED) services due to confusion about which service is best for their problem. Their decision may also be influenced by the type of problem (injuries are often perceived as more urgent than illnesses), perceived seriousness, the time of the day and week, co-payment costs and previous experiences (O’Cathain, Coleman & Nicholl, 2008). It has also been found that patient enrolment with a GP reduces the likelihood of a patient attending an ED for routine care (Martin, et al., 2002; Murphy, 1998).

Inappropriate ED attendances are focused on in much of the literature due to the implications of patients’ choices on health system goals. It is argued that care for non-urgent problems in an ED is much more costly than in a primary care setting. Provision of routine care in an ED setting is also said to compromise continuity and quality of care, as EDs are only set up to meet urgent care needs (Gill, Reese & Diamond, 1996).

While there is little available research on the difference between urgent primary care and routine primary care, the issues identified in patients presenting at EDs when they could be treated appropriately in primary care may be relevant to the context of comparing urgent and routine primary care.

**Definition of Urgent Care**

While urgency is difficult to define among patients and health professionals (Gill, Reese & Diamond, 1996), the United Kingdom Department of Health (2006b) describes it as “the range of responses that health and care
services provide to people who require – or who perceive the need for – urgent advice, care, treatment or
diagnosis” (Department of Health, 2006b, p12).

This response should include assessment of the urgency of patients’ needs at any hour of the day, and an appropriate and prompt response to that need. While urgent care is usually provided in an ED setting, it can also be provided in other non-hospital environments (Lang, et al., 1996; O'Cathain, et al., 2008). More locally, in Auckland it was defined in the Draft Urgent Care Plan for Auckland as the “the response to the Auckland population when they have a perceived health need quickly and unexpectedly” (Scott & Baird, 2013, p4)

**Definition of Routine Care**

In contrast, routine (non-urgent) care is usually provided in a primary healthcare setting. Routine care is considered appropriate for patients who have not had an accident (except at home), require no medical investigations, and “require no treatment other than a prescription, dressing, sling, bandage, steristrip, or advice” (Coleman, Irons & Nicholl, 2001, p484).

In New Zealand, routine care may be considered the services that GPs are specifically funded to provide. According to the PHO Service Agreement, this includes medical services that are by custom and practice recognised as being part of the services usually provider by general practitioners, disease prevention, family planning, and health education (DHB Shared Services, 2013).

**Relationship between Urgent and Routine care**

As outlined in Tenbensel, et al. (2013), there is limited research on the effect of increased availability of after-hours urgent care in relation to utilisation of (routine) primary healthcare. Groups that may benefit from receiving routine primary care after-hours are:

- Young children, whose condition may have a rapid onset and deteriorate at night, or whose parents may require a medical certificate to take them to childcare the following day (Baker, et al., 2012; Fancourt, et al., 2010), and
- People with a low income, who cannot access routine primary care during the day due to issues with transport or taking time off work (Eastwood & Jaye, 2006; Jatrana & Crampton, 2009).

**Why Patients Choose Services**

When choosing which after-hours service to use, patient preferences play an important role in whether a patient attends an A&M, a hospital ED, or waits to see their GP the next day. A number of factors influence this decision, including patients’ prior experiences in the health system, knowledge about their problem’s urgency,
proximity of services, and cost. In general, patients access services they are familiar with and perceive as appropriate for their needs (Giesen, et al., 2006; O’Cathain, et al., 2008; Philips, Remmen, De Paepe, Buylaert & Van Royen, 2010). Furthermore, international research shows that patients who are not enrolled with their own GP are much more likely to use an ED – and it can be assumed that this extends to A&Ms as well (Martin, et al., 2002).

It has also been shown that in some patients (older people) barriers to accessing after-hours care include unwillingness to see a different doctor, transport, cost, and feeling like their problem is not serious enough (Eastwood & Jaye, 2006).

Given these factors that determine patient choices, there is a clear pattern of who uses A&Ms. Users tend to be from high deprivation areas, and young women use services more than other adults. Children aged under six are also the most over-represented population group in the use of A&Ms (Hider, et al., 2007).

**Chapter Overview**

This chapter has provided an introduction to the concept of after-hours care, and how it is funded and delivered in New Zealand and in Auckland. It has provided a context to why improving access to after-hours care is important in New Zealand, particularly for children. Furthermore, it has discussed why parents may choose to use after-hours services for their sick children, for both urgent and routine primary care.

Carrying on from this chapter, the following chapter, Chapter Four, discusses recent initiatives to improve access to after-hours care for New Zealand children. It begins with the discussion of a national attempt to improve access, which was modelled on an Auckland initiative of the same nature. This thesis focuses on the Auckland initiative and is discussed last.
Introduction

The purpose of this chapter is to introduce the main part of this thesis: policies that subsidise access to after-hours care for children aged under six. As mentioned in Chapter One, this thesis focuses on the implementation of a subsidy at participating A&Ms for children aged under six in Auckland. This subsidy was implemented as part of an Auckland Regional After-Hours Network Initiative in 2011. For the purposes of this thesis, this subsidy is termed the ‘Auckland under-sixes subsidy’.

Following the implementation of the Auckland under-sixes subsidy, a national directive for free after-hours care for all children aged under six was announced by the government. For the purposes of this thesis, this is referred to as the ‘national directive’. These policies represent national and local attempts to improve access to after-hours care for young children.

This chapter first discusses the national directive, and the concerns it raised among health professionals. It then describes the Auckland under-sixes subsidy in depth. This is to allow the description of the Auckland under-sixes subsidy to precede the examination of its consequences in the rest of this thesis.

Finally, this chapter considers the process of policy evaluation, and policy learning. It discusses why evaluation is necessary in order to understand the intended and unintended consequences of a policy. It also outlines why it is important to learn from these consequences in order to improve the policy. The aim of this is to provide an argument as to why it is important to analyse, and learn from, policy experiences.

The National Directive

Announcement of the National Directive

In October 2011, the National Party produced a document titled Building Better Public Services: Better Care Closer to Home (2011). This document outlined the Party’s primary care policy prior to the November 2011 general election. A key part of the Party’s primary care policy was to extend free after-hours primary care to children aged under six in New Zealand. It was noted that of the 600,000 children in this age range in New Zealand, around half were expected to benefit from this subsidy (National Party, 2011).

On 27 October 2011, the Minister of Health released information regarding the rollout of this national directive. Part of this announcement was the acknowledgement of the initiative in Auckland to provide subsidised after-hours care to children aged under six, which had begun in September 2011 (Ryall, 2011).
Under the national directive, the government would work with local primary care networks across New Zealand to support free after-hours medical care for all children aged under six, at an estimated cost of $7 million dollars for the government per year. The funding for this change would come from efficiencies made elsewhere in the health system. DHBs would negotiate for this change to occur with local GP networks and after-hours clinics on a district by district basis. At this time, very little other information was released about how DHBs would go about this. DHB participation was voluntary (Ryall, 2011).

The Minister of Health also noted that in greater Auckland many children were already receiving free after-hours care, due to a new after-hours network established by DHBs and GPs in September 2011 (referring to the Auckland under-sixes subsidy) (Ryall, 2011).

After the announcement of the national directive, it was written into the 2012/2013 and 2013/2014 Operational Policy Frameworks for DHBs that DHBs must submit a jointly agreed Better Sooner More Convenient Alliance Implementation Plan and locality plan. In these plans they must outline how they will provide free after-hours care for all children aged under six (Ministry of Health, 2013d).

**Background to the National Directive**

In December 2011 additional information was made public following an Official Information Act request. These papers were prepared by Treasury for the Minister of Finance and provide further background to the October announcement (Topham-Kindley, 2012a).

On 5 October 2011 a briefing was supplied to the Cabinet Social Policy Committee, regarding access to after-hours health services for children aged under six. This briefing raised a number of concerns about the possible free after-hours directive including the lack of a clear problem, and a large amount of uncertainty and risk regarding the total cost to government. It also noted the need for a full policy analysis (New Zealand Treasury, 2011a).

An aide memoire on this topic was also prepared for the Minister of Finance prior to a Cabinet meeting on 21 October 2011. This paper noted further concerns around the possible national directive (New Zealand Treasury, 2011b). It stated that it was unclear what the objectives of the directive were and whether current evidence justified introducing it. This included whether it actually would reduce avoidable hospitalisations and ED attendances. It also noted that it was unclear how this policy tied in to current healthcare alliances or existing PHO/DHB initiatives to improve after-hours care. At this time, it was also unclear to Treasury how this policy would be funded (New Zealand Treasury, 2011b). Based on these concerns, the recommendation of this paper was that the Minister of Finance not support the directive, and that he ask for a fully costed policy proposal (New Zealand Treasury, 2011b).
It is not known whether the concerns raised in these papers were addressed prior to announcement of the directive (Topham-Kindley, 2012a). Additionally, no bodies representing medical professionals had been consulted on the directive prior to its announcement (Topham-Kindley, 2012b).

**Concerns about Clawback in Relation to Free After-Hours Care**

The introduction of this national directive has raised a number of concerns among those working in the health sector. Chief among many providers’ fears is that free access to after-hours care will result in a greater amount of GMS clawback of capitation (General Practice NZ, 2012; Topham-Kindley, 2011).

It is argued that free access to after-hours care will create an incentive for parents to utilise after-hours care in place of routine primary care, as it may be more convenient (General Practice NZ, 2012; Tatham, 2011; Topham-Kindley, 2011). After-hours care may be more convenient as parents will not have to take time off work, or the other parent will be home to look after other children (Tatham, 2011; Topham-Kindley, 2011). Some have even suggested that parents will bring siblings to the doctor for a check-up at the same time (Edwards, 2013).

Greater use of after-hours care will result in a higher level of clawback for practices, particularly if this occurs often (Topham-Kindley, 2011). This may pose a significant financial risk to providers. Given that capitation is a prospective payment, it will be much more difficult to anticipate the level of GMS clawback a practice can expect each month. This is particularly worrying for GPs, given that this financial loss may be the result of patients receiving care that they could have provided (General Practice NZ, 2012).

**Other Concerns around Free After-Hours Care**

Other concerns around the subsidisation of after-hours care for children aged under six include the creation of an incentive for increased casualisation of patients. Casualisation of patients would occur when patients do not enrol with one GP, as they can access after-hours care for the same (or cheaper) price, at a more convenient time (General Practice NZ, 2012; Tatham, 2011). For parents, these benefits may outweigh any need to see the same doctor when their child is sick. However, this may increase the work load for A&Ms (Tatham, 2011).

Increased casualisation may be compounded by the fact that general practices may not encourage patients aged under six to enrol with them if they believe there is a risk of greater levels of clawback. This may escalate to general practices electing not to enrol, or disenrol, patients aged under six to avoid the financial risk of clawback (General Practice NZ, 2012).

A further risk of reduced continuity of care is created if there is an incentive for patients to seek care from an A&M. It is argued that continuity of care is not developed if a child attends an A&M instead of a regular GP, and
this undermines the entire capitation-based funding system of New Zealand (Cumming, 2000; General Practice NZ, 2012).

Free after-hours care for children aged under six may also force those general practices who do charge a co-payment during working hours to remove this charge. This is in order to compete with nearby A&Ms that are free. Pressure may be placed on those practices that are not providing these services for free; pressure which may be in the form of disenrolment of children or an entire family (Topham-Kindley, 2011).

Proposed Solutions by GPNZ

In February 2012 GPNZ, an organisation that represents general practitioners working across New Zealand, published a position statement on ‘Free After-Hours Services for Under 6s’. The statement acknowledged the need to reduce cost as a barrier to accessing after-hours care. However, GPNZ argued that children aged under six should have access to free care only if it is urgent and non-routine (General Practice NZ, 2012).

This statement identified the different risks to GPs that may occur from free after-hours care for children aged under six, and proposed a number of solutions to mitigate these risks and ensure consistency if this subsidy is provided nationally. These solutions included:

- Eligibility for the subsidy must only be for those requiring urgent care;
- Local arrangements must promote children to receive routine care as enrolled patients at a practice, thus ensuring continuity of care;
- Stopping clawback of capitation-based funding for these urgent care visits, as capitation-based funding does not cover new consultation types, such as after-hours consults for children aged under six;
- Ensuring the definition of after-hours is consistent nationally and does not cover extended general practice hours; and
- Transparency of funding and contracting arrangements for this subsidy between DHBs and primary care providers.

(General Practice NZ, 2012).

Support for DHB Implementation

Some information is publicly available regarding how DHBs are to implement this directive.

Each DHB has received a share of the $7 million allocated to this directive based on a population-based funding formula weighted on the number of children in each DHB’s population (Topham-Kindley, 2012b). When asked, the Minister of Health confirmed that there was no base subsidy calculation from which DHBs could begin to negotiate funding with after-hours care providers (Topham-Kindley, 2011). This is the only public information
available on how DHBs were expected to negotiate the amount of funding after-hours care providers would receive.

**Guidance Document for DHBs**
The main source of information for DHBs was released in March 2012. This paper, titled *Guidance for District Health Boards: free after-hours care for children aged under six years*, was developed in order to support DHBs in planning for the implementation of the directive in July 2012.

It aimed to clarify the intent of the directive, and set parameters to underpin local implementation. Most implementation decisions were left up to individual DHBs given that they “have the best understanding of their local requirements and capacity and it is expected that, in partnership with their primary care providers, local sustainable solutions will be developed” (Ministry of Health, 2012c, p1).

In this paper the Ministry of Health stated that this directive aims to:

- Help improve access to services through reducing financial barriers;
- Address the national variability in fees for after-hours service provision for this age group;
- Reduce the numbers of young children presenting to Emergency Departments, and
- Enhance child health outcomes (Ministry of Health, 2012c, p1).

The paper outlined the underlying principles of the directive, which had been developed after discussion with DHBs, General Practice New Zealand (GPNZ), and other stakeholders. Many of these underlying principles reflect the concerns raised by GPNZ in their position statement published one month earlier, although the key concern of clawback is not expressly addressed (General Practice NZ, 2012). These principles were:

- That the directive should support clinical continuity of care by mainly providing services for urgent care that cannot be delayed, and sending clinical records to every patient’s medical home;
- Regular GPs should try to have flexible and extended opening hours to reduce after-hours utilisation, and
- After-hours clinics should support the patient’s relationship with their ‘medical home’, and the free after-hours care for children aged under six should not mean an increase in the price of after-hours care for other age groups (Ministry of Health, 2012c).

Along the lines of these underlying principles, a number of national minimum requirements for DHBs were established. One minimum requirement mentioned clawback of capitation based funding and stated that:

As provided for in the PHO Agreement a General Medical Services (GMS) claim may be made for the provision of free after-hours services for children aged under six years. Locally negotiated arrangements, such as a percentage of capitation funding being paid to after-hours providers in lieu of GMS claims, may also be applied (Ministry of Health, 2012c, pp2-3).
DHBs were also asked to report on achievement of service coverage for this directive, with a goal of 100 per cent service coverage as quickly as possible (Ministry of Health, 2012c). A full version of this policy document can be seen in Appendix 2.

**National Rollout of the Directive**

To date, there has been good uptake of the directive. The Minister of Health reported in March 2013 that 95 per cent of children aged under six had access to free care after-hours (Ryall, 2013b).

However, in August 2013, the Child Poverty Action Group released a report titled *Implementation of free after-hours services for children aged under six in New Zealand* (Ruscoe & Haran, 2013). This report investigated how widely available free after-hours care for children aged under six has been since the directive was announced. Ruscoe and Haran (2013) surveyed 280 A&Ms and extended-hours general practices in February 2013, from across the country. The survey investigated the cost of after-hours visits for children aged under six, and clinic opening hours.

This report found that after-hours visits were free at only 236 (84%) of the 280 practices surveyed. Charges at the other 44 practices (16%) ranged up to $60.00. The national average cost, including those that were free, was $3.55. In Auckland, the average cost was $17.50. Only Auckland, Waitemata, Counties Manukau, and Canterbury DHB had A&Ms that were open 24 hours a day (i.e. providing a true alternative to ED care) (Ruscoe & Haran, 2013).
The Auckland Regional After-Hours Network Initiative

In September 2011, prior to the October announcement of the national policy, a local initiative in Auckland began to deliver free or low cost after-hours medical care to children aged under six. This was implemented by the Auckland Regional After-Hours Network, the “new city-wide after-hours network” referred to by the Minister of Health in his announcement of the national directive (Ryall, 2011).

Understanding this local initiative, the Auckland under-sixes subsidy, is important to anticipating possible consequences of the national directive on the New Zealand health system, and on New Zealand children.

Background to the Auckland Regional After-Hours Network

As outlined in Chapter Three, despite clear directives for the funding and provision of after-hours care in New Zealand, historically there have been difficulties in access to affordable after-hours primary care, particularly for medical consultations.

After the introduction of the Primary Health Care Strategy in 2001, the change to capitation-based funding meant that many A&Ms were not now part of PHOs and, as a result, received significantly lower funding than in the past. This meant that patient co-payments at A&Ms became significantly higher than the cost of within-hours care provided by GPs for enrolled patients (Tenbensel, et al., 2013; Verstappen, 2011).

While it is reasonable to expect that after-hours care may have different co-payment costs than within-hours care, the After-Hours Primary Health Care Working Party report (2005) noted that even if co-payments for after-hours care are not significantly higher than fees within-hours, any difference may significantly reduce access for those with low-incomes. They also noted that other issues such as travel distance and gaps in service coverage limit access in some parts of the country (After-Hours Primary Health Care Working Party, 2005).

A report by the Controller and Auditor-General (2010) argued that DHBs should investigate barriers (such as cost) preventing access to after-hours primary care services in their areas, and, if necessary, take action to reduce these barriers. They noted that “DHBs need to design their service networks to ensure sustainable after-hours service networks. For some, this may mean redesigning their existing after-hours networks” (Controller and Auditor-General, 2010, p47).

The Auckland Regional After-Hours Network

In 2011, in response to issues with access to after-hours services in Auckland, the Auckland Regional After-Hours Network (ARAHN) network was formed. This network consists of health service funders and providers such as DHBs, PHOs, and A&Ms. The aim of this network was to improve the coordination of after-hours care delivery in the greater Auckland area for a range of high-needs groups, including children under six. It was also seen a possible way to mitigate increasing rates of hospital ED utilisation. More information on the formation
and functioning of this network can be found in the Evaluation of Auckland Regional After-Hours Network and the After-Hours Initiative (AHI) (Tenbensel, et al., 2013).

As not all A&Ms chose to be part of the ARAHN, there were 11 A&Ms participating in the network out of the over 20 A&Ms in Auckland. The 11 participating A&Ms in this network are:

**Counties Manukau DHB**
- Pukekohe
- Takanini
- East Tamaki Health Care Bairds Road (Otara)
- East Care (Botany)

**Auckland DHB**
- Otahuhu White Cross
- Ascot White Cross (Remuera)
- Three Kings
- New Lynn White Cross

**Waitemata DHB**
- Henderson White Cross
- Glenfield White Cross
- Shore Care (Takapuna) (Tenbensel, et al., 2013).

The Initiative

Upon formation, the ARAHN developed the After-Hours Initiative (AHI). This initiative built on a number of pre-existing services and contractual arrangements. Members of the ARAHN contributed $11.8m to fund the AHI for an initial 22-month period of 5 September 2011 to 30 June 2013. However, only about $3.2m of this can be considered as new investment into after-hours services (Tenbensel, et al., 2013).

This initiative consists of three parts:

- Subsidisation of A&M co-payments for some patients;
- Extension of A&M opening hours to 8.00am-10.00pm; and
- Subsidisation of telephone triage services provided by HomeCare Medical Limited (HML) (Tenbensel, et al., 2013).

The pool for funding subsidisation of the A&M co-payments was around $9.45 million and predominantly funded by DHBs (Tenbensel, et al., 2013).

**Subsidisation of A&M Co-Payments, including the Under-Sixes Subsidy**

The subsidisation of patient co-payments at the participating A&Ms was the key part of this initiative, and will be focused on in this thesis. This subsidy applied only to patients identified as being in a high need group:

- Children aged under six years old;
• Adults aged 65 years and over;
• Community Service Card (CSC) holders;
• High User Health Card (HUHC) Holders; and
• Quintile 5 residents (residents of census area that are in the lowest 20% of area ranked by socioeconomic wellbeing. These are referred to as Deprivation levels 9 and 10).

This subsidy only applied to A&M users who were classed as casual users. Some of the participating A&Ms are also general practices with enrolled patients, to whom the subsidy does not apply. The effect of the subsidy on patient co-payments was not equal across all participating A&Ms. Each A&M has a different co-payment schedule. This ranges from no co-payment to $52 (Tenbensel, et al., 2013).

This system of variable co-payment levels was devised to address a concern raised by some of the PHOs and their constituent practices: that after-hours co-payments at A&Ms would be cheaper for patients than in-hours co-payments charged by GPs located nearby participating A&Ms (Tenbensel, 2013). It was argued by PHOs and GP representatives that making services free at the point of use might undercut nearby GPs’ co-payment levels, particularly for children aged under six. It may also encourage patients “to turn up to after-hours A&Ms for every medical issue” (Johnston, 2013, p1).

The eventual solution was to set co-payment levels for each eligibility category at the ‘80th percentile’ of GP charges within a 5km radius of the A&M. This meant that the agreed co-payment levels for A&Ms were the same or more than the fees charged by 80% of GPs within that radius (Tenbensel, et al., 2013).

**Subsidisation of Visits for Children Aged under Six (the Auckland under-sixes subsidy)**

The subsidised co-payment for children aged under six at the beginning of the subsidy at the different participating A&Ms is outlined in Table 2.

**Table 2: After-hours Co-payments for Children Aged Under Six at Subsidised A&Ms, After the Introduction of the Auckland Under-Sixes Subsidy**

<table>
<thead>
<tr>
<th>A&amp;M</th>
<th>Subsidised After-hours Co-payment for a Patient Aged Under Six ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pukekohe</td>
<td>$0</td>
</tr>
<tr>
<td>Takanini</td>
<td>$0</td>
</tr>
<tr>
<td>East Tamaki Health Care Bairds Road (Otara)</td>
<td>$0</td>
</tr>
<tr>
<td>East Care (Botany)</td>
<td>$0</td>
</tr>
<tr>
<td>Otahuhu White Cross</td>
<td>$0</td>
</tr>
<tr>
<td>Ascot White Cross (Remuera)</td>
<td>$25</td>
</tr>
<tr>
<td>Three Kings</td>
<td>$0</td>
</tr>
<tr>
<td>New Lynn White Cross</td>
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</tr>
<tr>
<td>Henderson White Cross</td>
<td>$0</td>
</tr>
<tr>
<td>Glenfield White Cross</td>
<td>$15</td>
</tr>
<tr>
<td>Shore Care (Takapuna)</td>
<td>$25</td>
</tr>
</tbody>
</table>

(Auckland Regional After-Hours Network, 2012).
It is important to note that prior to the Auckland under-sixes some of the A&Ms in Counties Manukau DHB were already free or close to it (Tenbensel, et al., 2013).

**Concerns Raised about the Auckland Under-Sixes Subsidy**

As with the national directive, there has also been some discussion of effects on GPs of the AHI and the Auckland under-sixes subsidy. Concerns raised by local doctors included:

- Expected increases in clawback;
- Increased casualisation of aged under sixes by GPs (i.e. removal from enrolment rosters) as a result, meaning children will be charged casual fees within-hours, and
- Loss of continuity of care, including a reduction in immunisation rates.

Some also argued that local A&Ms would not be able to cope with increased demand as a result of the subsidy (Tatham, 2011).

**Similar Initiatives Overseas**

Very little evidence is available on any similar initiatives overseas to improve after-hours primary care access by implementing subsidies, which are particularly for children.

One study in the United States, examined whether insured children were more likely to access primary care, ahead of a policy to extend federally funded health insurance to a greater number of children. These authors found that among children, having health insurance was strongly associated with having access to primary care, particularly after-hours primary care. This study also found that access to primary care reduced the amount of care that was delayed or missed (Newacheck, Stoddard, Hughes & Pearl, 1998).

There is also evidence that in Australia some GP After-Hours Care Cooperatives do not charge a co-payment for selected groups such as children and those with low-income. There are also private Extended Hours Clinics and some GP Super Clinics (which are similar to A&Ms) which can control how they are funded and what level of co-payment to set (Australian Medicare Local Alliance, 2013).

However, in other countries such as the United Kingdom, Denmark and Norway, there is usually no cost for patients receiving after-hours care and so cost at the point of use is not a barrier to access (Australian Medicare Local Alliance, 2013). Additionally, any similar overseas initiatives may not be applicable to understanding the Auckland under-sixes subsidy. There is a need for New Zealand-based evidence, given this country’s unique primary care context. Particular to New Zealand is the system to fund primary care and the after-hours care environment, which has developed over the last two decades.
Learning from Policy Experiences

The previous sections of this chapter described national and local attempts to improve access to after-hours primary care for young children in New Zealand. The following section describes why it is important to evaluate such policies, and how the consequences of initiatives can be learnt from. The aim of this is to provide a theoretical background to why it is important to understand the Auckland under-sixes subsidy, and why the consequences of such a subsidy could apply to the national directive.

Evaluation

Policy evaluation can be defined as scientifically based activities carried out to assess the operation and impact of public policies, and programmes designed to implement those policies (Rossi & Wright, 1979). This assessment involves ascertaining whether a policy has been effective in terms of its perceived intentions and results (Gerston, 2010). The process of policy evaluation usually comprises of empirical investigation; judgement of merit, worth or value; and then integration of the conclusions from both (Scriven, 2003/2004). It can support policy stakeholders to be engaged in the evaluation and its findings, although this does not always happen (Howlett, Ramesh & Perl, 2009; Scriven, 2003/2004). This process also involves the assessment of the unintended consequences of a policy (Scriven, 2003/2004).

As argued by Sanderson (2002, p8), “there will always be unintended and unanticipated consequences of action which undermine our capacity to predict and control on the basis of knowledge”. This complexity often undermines policy success; thus it can be argued that using strong evidence to form policy can help anticipate these consequences (Howlett, et al., 2009; Sanderson, 2002).

Evidence-based policy can improve the policy formulation process by focussing on decision-making based on empirical evidence, rather than intuitive or experimental policy formulation. It is argued that this will enhance policy success by ensuring policies reflect policy implementation conditions and contexts (Howlett, et al., 2009).

Realistic Evaluation

Realistic evaluation is one way policy evaluation can capture the complexity of public policies and their consequences. Realism theory aims to provide a methodology for synthesising the information available for evidence-based policy-making (Pawson, 2006). Realists, such as Pawson and Tilley (1997) argue that in order to understand ‘what works’ in policy, both the material and social worlds should be considered in relation to the ‘real’ consequences they can have (Pawson, 2006). Therefore, in order to anticipate or measure the social outcomes of a policy (both intended and unintended), the policy’s context and underlying causal mechanisms should be understood (Pawson & Tilley, 1997).

Realistic evaluations take into account the wider contexts affecting a policy, and the complex interplay of individuals and institutions that surrounds it. It specifically seeks to understand the mechanisms of a policy, the context in which it is implemented, and the outcomes of the policy. Policy mechanisms are limited by people’s
experiences, beliefs, opportunities, and access to resources. Contexts include the political, economic and social environment, historical events, organisational or institutional contexts, and the geographic location of where a policy is implemented (Pawson & Tilley, 1997).

Given that the realistic evaluation states that different programmes work in different ways for different people, realistic evaluation approaches may allow for greater understanding of whether programmes that are targeted at a number of population groups have different consequences for each group. It may also focus on whether a policy works differently in a different locality. Realistic evaluation often involves mixed methods data collection to understand these different aspects (Pawson & Tilley, 1997).

Overall, realistic evaluation is about ‘what works for whom, in what circumstances’ and it is this complexity that provides a greater level of evidence to draw on in the process of evidence-based policy formulation (Pawson, 2006).

The Role of Policy Evaluation in Driving Policy Learning

It is argued that evaluation brings greater success to the policy formulation process; it is also contended that there is a need to build the capacity to allow for the modification of policies in light of such information. Consequently, greater realism in policy evaluation should drive policy learning (Sanderson, 2002).

Policy learning can be described as the ‘intentional, progressive, cognitive consequences of the education that results from policy evaluation’ (Howlett, et al., 2009, p180). This can also include understanding of the intended and unintended consequences of a policy, and the implication it may have had on the existing policy environment (Howlett, et al., 2009; Merton, 1936).

Howlett, et al. (2009) also describes how policy learning actively seeks to learn about policy problems and how to address them. These authors discuss how this is similar to ‘trial and error’ policy formulation, where policies are trialled in order to see the consequences they have (Howlett, et al., 2009). When combined with evaluation after each trial of a policy, particularly realistic evaluation, this can iteratively improve a policy’s success (Howlett, et al., 2009; Sanderson, 2002).

Increasingly, discussion of policy learning as a way to address the complexity and unintended consequences of public policy in its quest to address social problems (Sanderson, 2002, 2009). Sanderson (2002, 2009) contends that an enhanced capacity for policy learning, based on the results of policy evaluation, addresses this complexity and the need for policies that ‘work’. It does so by addressing the inevitability that policies will never be completely effective, and slowly leading to policy success (Cairney, 2012; Howlett, et al., 2009; Sanderson, 2006).
Types of Policy Learning

If realistic evaluation is used within the policy process, information will emerge on how a particular policy works, for whom, and in what circumstances. It is argued that there are two main ways that this information can be used for policy learning: lesson drawing and social learning (Howlett, et al., 2009).

Lesson-drawing is the specific use of evaluation information by policy-makers in order to formulate, improve, or alter a policy. It is often used to draw lessons from policies implemented within different contexts; thus it is limited in its application (Howlett, et al., 2009; Rose, 1991).

Social learning is a broader method of evaluating the broad contexts and underlying paradigms that affect a policy’s formation and effectiveness. Hall (1993, p278) describes this type of learning as “a deliberate attempt to adjust the goals or techniques of a policy in response to past experience and new information. Learning is indicated when policy changes as a result of such as process.” Social learning focuses most on the influence of past policies. Policy-makers may then use this information to radically alter a policy due to the new ideas that emerged from an evaluation (Hall, 1993; Howlett, et al., 2009).

The Effect of Evaluation on the Policy Process

The ability of evaluation to affect a policy can differ significantly between organisations. While some evaluations are used significantly, at other times they can be disregarded by policy-makers. Often, limited learning takes place where only some aspects of evaluations findings are chosen. This can be reflective of the underlying paradigms of the organisation and their agreement with evaluation findings (Howlett, et al., 2009).

Research suggests that the effect policy evaluations and learning has on outcomes depends on the capacity and willingness of policy-makers to absorb new information (Howlett, et al., 2009; Zarkin, 2008). In particular, the capacity of organisations to engage in policy learning is related to the nature of the policy process, and the integration of ideas between different actors involved in the policy’s formulation (Aldrich & Herker, 1977; Howlett, et al., 2009).

Chapter Overview

This chapter has introduced two policies attempting to increase access to after-hours care for children aged under six in New Zealand. The first described was a national directive for all DHBs to support free after-hours care for children aged under six in their regions. This national directive was based on the implementation of a subsidy for after-hours care at participating A&Ms across Auckland in 2011. The Auckland under-sixes subsidy formed part of the AHI initiative, and was described in this chapter.

This chapter also discussed how some GPs, and the bodies representing them, believe that there will be negative consequences of both the national directive and the Auckland under-sixes subsidy. It is feared that
these policies, in conjunction with the current primary care system in New Zealand, will result in a number of consequences for primary care.

Finally, this chapter outlined the process of policy evaluation, and how evaluation findings can be learnt from to influence the success of a policy. This was in order to reflect on why the consequences of the Auckland under-sixes subsidy should be investigated, and why learning from this initiative can help to anticipate the implications of the national directive.

This chapter has also discussed the realistic evaluation approach. This approach was considered as it strongly influenced the underlying research design of this thesis. The following chapter, Chapter Five, outlines the methodology used in this thesis. It describes why a mixed methods methodology was used, and how this has guided the data collection and analysis in this thesis.
Chapter Five

Methodology

Introduction

This chapter presents the study approach, methodology, data collection, and analysis methods employed in this thesis. It outlines the research objectives, and why a realistic evaluation framework was applied in order to answer these objectives. Based on the realistic evaluation framework, this thesis took a mixed methods approach to research, the key aspects of which are outlined in this chapter. An integrated quantitative/qualitative methodology was used to draw the different findings together better to understand all of the consequences of this policy.

This chapter then outlines each of the five studies used, and way in which data was collected and analysed for each of these methods. The way in which this research relates to a wider Auckland After-hours Evaluation is also discussed, as are the ethical procedures surrounding the research process.

Research Objectives

The aim of this research was to understand how the implementation of a subsidy for after-hours care for children aged under six years in Auckland impacted on access to, and provision, of primary care services in the region. The specific research objectives were to identify what (intended and unintended) consequences the subsidy had on:

1. Access to after-hours care at A&Ms for children aged under six;
2. Access to, and continuity of, within-hours general practice care for children aged under six, and
3. Clawback of capitation funding, and general practitioners’ perceptions of clawback;

And to:

4. Identify the implications of the Auckland under-sixes subsidy when combined with other primary care policies in New Zealand.

This research involved five studies, each of which will be considered in this section:

- Analysis of after-hours utilisation data from A&Ms participating in the AHI;
- Analysis of within-hours utilisation data from selected general practices;
- Analysis of clawback of capitation based funding for selected general practices;
- Interviews with GPs, and
- A survey of parents of children aged under six using after-hours care.
Research Approach

Evaluation Design
As discussed earlier, realist approaches aim to understand the role that context plays in affecting the outcomes of a particular policy or service. Research must, therefore, take into account wider social, political, economic, and historical contexts (Pawson & Tilley, 1997).

A realistic evaluation approach influenced this research in order to reflect the complexity of this policy. The AHI, and Auckland under-sixes subsidy, has been implemented in a dynamic environment where services and policies change often according to different healthcare funder priorities and population needs. Given that the context is not static, implications of other policies within the primary (and even secondary) care sector are particularly important to understanding the mechanisms of the subsidy.

As policies can work differently for different people, it is necessary to acknowledge that children’s health needs, and the behaviours or choices of their parents, may differ to those of adults. Furthermore, this approach allows for analysis of local populations in comparison to others in Auckland, which is relevant for exploring how the impact of the subsidy may differ between different areas, and socioeconomic groups.

Key to the understanding of ‘what works for whom, in what circumstances’ is the collection of a large amount of evidence to draw on, using a number of different methods (Pawson, 2006). This is one reason why realistic evaluation often uses a mixed methods approach (Appleton-Dyer, 2012; Pawson & Tilley, 1997). A mixed methods approach also allows data to be collected from different stakeholders (all of whom have different understandings about the Auckland under-sixes subsidy) in the most appropriate way (Pawson, 2006).

Mixed Methods Approach
This research took a mixed methods approach. Mixed methods research involves collecting both qualitative and quantitative data and integrating this information at some point (Creswell, Plano Clark, Gutmann & Hanson, 2003; Tashakkori & Teddlie, 2003). It differs from a multi-method approach in its integration of either data or conclusions (Creswell, 2009).

It is argued that there are some limitations to using mixed methods, including that it requires greater research skills and there may be some discrepancy in using separate analyses, which will need to be discussed (Andrew & Halcomb, 2009; Caraccelli & Greene, 1993). Despite these limitations, it can be argued that mixed methods will greatly improve the quality of the results by broadening understanding of the issue (Creswell, 2009). Mixed methods are particularly useful as a way to generate new insights and understandings (Andrew & Halcomb, 2009; Creswell, et al., 2003). As a mixed methods approach is not driven by one particular theoretical world view, it allows research to reflect a number of different theories and contexts (Appleton-Dyer, 2012; Caraccelli & Greene, 1993).
Caraccelli and Greene (1993) contend that there are five main reasons to undertake mixed methods research: triangulation, complementarity, development, initiation, and expansion. This research will use a mixed methods approach primarily for expansion - to extend the breadth and depth of the inquiry. Mixed methods are also used for triangulation, where findings are corroborated and converged between the method types. Triangulation in particular will help to ‘offset the weaknesses inherent with one method with the strengths of another’ (Creswell, 2009, p213).

This research also used mixed methods somewhat for development purposes, where some of the studies are developed sequentially (Caraccelli & Greene, 1993). Outcomes of one part of the quantitative analysis were used in order to develop the sample for the qualitative interviews, and sampling to obtain information showing levels of clawback of funding.

There are a number of different types of mixed methods strategies (Creswell, 2009; Creswell, et al., 2003). When determining the approach that a study will use, a number of factors must be considered including the timing of data collection, the weighting given to the qualitative and quantitative data during analysis, and at what stage data will be integrated (Creswell, et al., 2003).

This research mostly uses concurrent data collection, except for where quantitative data was used to inform sampling. Assuming that the different studies undertaken aim to understand the same phenomenon, and are all equally important to doing so, equal weighting is given to both quantitative and qualitative data.

**Mixed Methods Data Integration and Analysis**

The key steps in mixed methods analysis include individual study analysis, data integration, and interpretation (Greene, 2008). An important factor that distinguishes a mixed methods approach from a simple multi-methods study design is the data integration and analysis stage. A clear rationale for mixing data must be explained; as must the way in which findings are integrated (Appleton-Dyer, 2012; Creswell, 2009; Greene, 2008).

Each of the five studies in this research were analysed separately, the methods of which are outlined below. These methods follow the conventional processes for qualitative and quantitative data analysis (Creswell, 2009).

Excluding the development of sampling using preliminary quantitative results, the studies used in this research have remained distinct throughout analysis. While separate analysis may result in contradictory results, it will also mean data will not require transformation, which may reduce the validity of the data (Andrew & Halcomb, 2009). Furthermore, discrepancies that may arise also allow researchers to gain new insight from data disparities (Creswell & Clark, 2007).
Mixing occurred when interpreting results and drawing conclusions (Greene, 2007). Results were compared by research objective (Creswell, 2009; Padgett, 2011). This allowed for the discussion of results to include whether the themes emerging from the different data streams converge or diverge (Padgett, 2011).

**Relationship with the Auckland After-Hours Evaluations**

This thesis was carried out in collaboration with the researchers from the School of Population Health, University of Auckland, who worked on the ‘Auckland After-Hours’ Evaluation and the subsequent ‘Better Sooner More Convenient’ (BSMC) Acute Care research project. The Auckland After-Hours Evaluation was commissioned by the funders of the AHI. The evaluation was published in March 2013 (Tenbensel, et al., 2013). This evaluation was furthered by a research project partly funded by the Ministry of Health and the Health Research Council under their priority to promote ‘Better Sooner More Convenient’ health services, and partly funded by the Health Research Council of New Zealand.

The research in this thesis has formed part of the BSMC Acute Care research project. This has allowed for some of the information collected as part of this project (and the previous evaluation) to be used by this researcher. This was beneficial in that it allowed a greater amount of information to be used to investigate the research objectives, and thus form a strong overall picture of the policy. This was necessary given the practicality of carrying out a mixed methods design in one year. However, while the information used in some of these studies was collected by others, all analysis in this thesis was carried out by this researcher.

Collaborating as part of the ‘Better Sooner More Convenient’ project has also allowed the findings of this thesis to be used in that research project, and thus expand the scope of that research to include the findings of this thesis. The publication of the BSMC Acute Care project report is forthcoming.

Methods of collection for each of the five studies used are outlined below, and all indicate if the data was collected by other researchers.

**Mixed Methods Studies Employed**

**Overview**

In recognition of the different studies that make up this research, Table 3 summarises each study’s design, methods and analysis. It also outlines whether the study was designed by this researcher specifically for this thesis, or was collected as part of the Auckland After-Hours Evaluation.

In terms of development of research methods, A&M utilisation after-hours was first analysed in order to purposively sample groups most affected by changes. This analysis influenced the sampling to obtain the GP interviews, clawback of funding data and the within-hours GP utilisation data.
<table>
<thead>
<tr>
<th>Study</th>
<th>Research Objectives Addressing</th>
<th>Data Source</th>
<th>Primary Reason for Collection</th>
<th>Methods</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>A&amp;M Utilisation</td>
<td>What (intended and unintended) consequences has the subsidy had on access to after-hours care at A&amp;Ms for children aged under six?</td>
<td>Auckland Regional After-Hours Network</td>
<td>Auckland After-Hours Evaluation</td>
<td>• Collection of quantitative utilisation data about patients who used the participating A&amp;Ms.</td>
<td>• Descriptive statistics. • Statistical tests including comparison of means and non-parametric tests. <strong>Used to select MAGPG.</strong></td>
</tr>
<tr>
<td>Within-hours GP Utilisation</td>
<td>What (intended and unintended) consequences has the subsidy had on access to, and continuity of, within-hours general practice care for children aged under six?</td>
<td>Procare PHO</td>
<td>This research</td>
<td>• Collection of quantitative utilisation data about number of visits made per month to each general practice, by children aged under six. • Sample chosen using A&amp;M utilisation data analysis.</td>
<td>• Descriptive statistics. • Statistical tests including comparison of means and non-parametric tests.</td>
</tr>
<tr>
<td>Levels of Clawback</td>
<td>What (intended and unintended) consequences has the subsidy had on clawback of capitation funding, and General Practitioners’ perceptions of clawback?</td>
<td>Ministry of Health</td>
<td>This research</td>
<td>• Collection of claims made that trigger clawback (for children aged under six) at the participating A&amp;Ms, for patients enrolled at the key group of 18 general practices. • Sample chosen using A&amp;M utilisation data analysis.</td>
<td>• Descriptive statistics. • Statistical tests including comparison of means and non-parametric tests.</td>
</tr>
<tr>
<td>GP Interviews</td>
<td>What (intended and unintended) consequences has the subsidy had on access to, and continuity of, within-hours general practice care for children aged under six? And on clawback of capitation funding, and general practitioners’ perceptions of clawback?</td>
<td>GPs</td>
<td>This research and BSMC Acute Care project</td>
<td>• Semi-structured interviews. • Sample chosen using A&amp;M utilisation data analysis.</td>
<td>• Analysis of key themes based on semi-structured interview format.</td>
</tr>
<tr>
<td>Patient Survey</td>
<td>What (intended and unintended) consequences has the subsidy had on access to after-hours care at A&amp;Ms for children aged under six? And on access to, and continuity of, within-hours general practice care for children aged under six?</td>
<td>BSMC Acute Care project</td>
<td>BSMC Acute Care project</td>
<td>• Survey of 115 parents of children aged under six who attended subsidised A&amp;Ms. • Survey of 85 parents of children aged under six whom attended EDs.</td>
<td>• Descriptive statistics including frequencies.</td>
</tr>
</tbody>
</table>
Analysis of Accident and Medical Clinic Utilisation After-Hours

Data Collection
Existing summary audit data was provided to the Auckland After-Hours Evaluation team as part of the wider evaluation and was then used as part of this research. This data focuses on the effect that the reduction of co-payments for patients aged under six at participating A&Ms had on utilisation of those clinics.

The summary audit data was originally collected by the Auckland Regional After-Hours Network from participating A&Ms. Visits were classified according to treatment site (e.g. Whitecross Ascot) and time (after-hours or not). Only visits that occurred during the after-hours periods (i.e. from 6.00pm to 8.00am weekdays, all weekends, and all public holidays), and was a medical attendance (rather than an accident), are included. Data on the primary care practice where the patient was enrolled was provided by Auckland-area PHOs for the same time period.

In both data sources, individual patients can be identified using unencrypted National Health Index (NHI) numbers. In order to avoid potential difficulties with the release of confidential data, NHI numbers in both datasets were encrypted with a bespoke key prior to release to the Evaluation team and a census meshblock was provided in lieu of full address information.

This data is limited to the patients whose NHIs could be matched to PHO data, therefore, it only shows patients who are enrolled with a PHO. However, recent research suggests that at least 98% of the New Zealand population are enrolled (Gauld, 2012). Having this information at a patient rather than provider level is advantageous in that the patient’s medical home, and area they live in, is known. In order to identify a patient residence, the patient’s meshblock was matched to one of five broad areas, based on DHB boundaries and the road network in Auckland. The Central region covered the Auckland DHB area, East covered the Counties Manukau DHB area to the east of State Highway One, South covered the Counties Manukau DHB area to the south of State Highway One, West covered the Waitemata DHB area to the south west of State Highway 16, and the North covered the North Shore and the Waitemata DHB area to the north and east of State Highway 16.

Data Analysis
This data allowed for the comparison of before and after the introduction of the Auckland under-sixes subsidy in September 2011. In particular, a comparison of the full years immediately prior to and following its introduction, the calendar years of 2010 and 2012, was carried out. A full calendar year was chosen as it allows for seasonal variation in the use of A&Ms.

Results were analysed using SPSS Version 19. Statistical analyses of this data was performed and modelled to generate an analysis to understand utilisation patterns and group differences. This included descriptive statistics and non-parametric testing.
Utilisation of A&Ms by patients aged under six in 2010 compared to 2012 was compared across Auckland. Patient characteristics of the 2010 and 2012 sample were also compared. This data was broken down further to show the number of visits per year by enrolled patients aged under six, by general practice enrolled with, to participating A&Ms. This allowed for analysis of the impact of A&M utilisation on Auckland general practices.

Selection of a Key Group of General Practices

This data was also used to select a small number of general practices from the greater Auckland region. By choosing general practices who had seen the largest increase in A&M utilisation since the Auckland under-sixes subsidy began, it was estimated that this group would comprise the general practices most affected by the Auckland under-sixes subsidy. Choosing practices that had seen a significant increase was also important to the methodology as it was expected that these practices would have seen a correlating increase in clawback of their capitation funding for children aged under six. For the purposes of this thesis, this group will be termed the ‘Most Affected General Practitioner Group’ (or MAGPG).

Data showing the average number of visits per month by enrolled patients aged under six, per general practice, to participating A&Ms, was ranked according to total change and percentage change in utilisation per month by their enrolled patients aged under six from 2010 to 2012. The 18 general practices were selected using the following criteria:

- All general practices who had a A&M utilisation percentage increase greater than or equal to 50% between 2010 and 2012;
- Had a total increase greater than 5 visits per month, and
- Whose average visits per month in 2012 were greater than or equal to 20 visits.

These criteria were chosen to select out those practices that had a significant increase in that time period, and a significant number of patients aged under six attending A&Ms. Practices owned by East Tamaki Health Care were not included as they are not individually owned private practices and so may not view reports on clawback of funding.

These 18 practices were ranked the top in increases to utilisation over the time period out of 259 total practices with data available. The MAGPG was then used as the basis for obtaining other forms of data, including the clawback of funding data, GP interviews, and within-hours general practice utilisation data.

Summary of Practices in MAGPG

The practices in the MAGPG all happen to be free at the point of use for children aged under six (during working hours). Of the 18, two are part of East Health Trust PHO, one is part of Auckland PHO, and the rest (15 practices) are part of Procare PHO. The practices tend to be clustered in Central, East and South Auckland, as can be seen in Figure 2.
Analysis of General Practice Utilisation Within-Hours

Data Collection
Existing summary audit data was provided by Procare PHO. This data looks at the changes that may have occurred in the number of within-hours consults for children aged under six at selected clinics, as a result of the Auckland under-sixes subsidy.

This data is summary audit data, which is routinely collected by Procare for all its general practices. The data is limited to Procare practices with data available for both 2010 and 2012 (133 practices in total). While it would have been preferable to have within-hours consults data for all Auckland practices, this was not feasible during the time-frame of this research. This PHO is also the largest in Auckland and has general practices located in a variety of suburbs. Thus, the patients enrolled in Procare general practices should behave similarly to the total Auckland population.

The utilisation data was provided in summary form by Procare and does not include any individual patient data.
**Data Analysis**

This data allowed for the comparison of before and after the introduction of the Auckland under-sixes subsidy in September 2011, the years 2010 and 2012 as with the A&M utilisation data.

Results were analysed using SPSS Version 19. Statistical analyses of this data was performed and modelled to generate an analysis to understand utilisation patterns and practice differences.

Firstly, all practices available were included in the sample. Changes to consults by the general practices for patients aged under six between 2010 and 2012 were compared by year.

The sample was secondly reduced to the MAGPG. Changes to utilisation of the general practices by patients aged under six between 2010 and 2012 were compared against A&M utilisation for the same years.

**Analysis of Clawback of Capitation-based Funding for Selected General Practices**

**Data Collection**

Clawback of capitation-based funding data is routinely collected by the Ministry of Health. This data shows the amount of ‘clawback’ of capitation payments that occurs at each general practice. This data is existing summary audit data provided to PHOs every month by the Ministry of Health. This data was used to investigate changes that may have occurred in the level of clawback of capitation funding for children aged under six at selected general practices, as a result of the Auckland under-sixes subsidy.

The Ministry of Health provided information on the number of claims made that trigger clawback (for children aged under six) in 2010 and 2012 at the participating A&Ms, for patients enrolled at the MAGPG general practices. This information showed which general practice the patient was enrolled in at the time. It was not possible to separate out which A&M visits occurred only after-hours at these A&Ms. However, it is assumed that most visits occur after-hours. This information is de-identifiable.

Some summary information regarding total clawback levels for Auckland and New Zealand was also provided by the Ministry of Health. Total clawback refers to all clawback of capitation-based funding regardless of whether the claim was made by an A&M, or by a general practice the patient saw as a casual patient within-hours.

**Data Analysis**

This quantitative information was used to assess the effect of the Auckland under-sixes subsidy on the capitation-based funding to each of the selected general practices. Although the information provided only showed the number of claims made, this could then be translated into funding levels given that each claim results in a clawback of $31.11 (excluding GST and the stop loss) (DHB Shared Services, 2013).

Results were analysed using SPSS Version 19. A statistical analysis of this data was performed to generate an analysis to understand clawback patterns and area differences.
Survey of Parents of Accessing After-hours Care for their Sick Children

Data Collection
Existing patient survey data, which was collected as part of the BSMC Acute Care Research Project, was used. The aim of using this data was to add a parent perspective into this research. This cross-sectional patient survey was set in the 11 participating A&Ms and five EDs, and took place over a two-week period in July 2013. Patients were eligible to take part if they attended a service for non-accident medical care after-hours, were assessed by a clinic triage nurse as low acuity, and had sufficient English language or were accompanied by a person who would interpret.

Potential participants for this survey were identified by triage nurses at the time of the patients’ visit. They were approached by a University of Auckland research assistant (RA) who explained the study and obtained written consent in those who agreed. The main part of this survey was administered by the RA before the patient had been seen by a clinic doctor. If patients were aged under 18 years, their parent or guardian completed the survey, which is the case for all of the results analysed in this thesis. For the ease of reporting of this information, parents or guardians will be referred to simply as parents.

The survey was developed by the BSMC Acute Care project team based on current literature and patient pathways. This research looked at the results of selected questions of the survey that were deemed most relevant. A copy of the entire survey can be seen in Appendix 3. Responses were only included in analysis for patients aged under six.

Relevant questions included:

- Patient’s age;
- Area patient lives (and deprivation level this area is classified as);
- Whether a patient is enrolled with a general practice;
- Parent/caregivers’ reasons for service choice;
- Whether the parent/caregiver would have chosen to go to their GP if it was open, and
- And whether the patient has ever been to an A&M because their usual doctor had no same-day appointments available.

Data Analysis
Patient age was first analysed to exclude all responses from, or on behalf of, patients aged 6 or over. All non-relevant questions were excluded from the dataset. Results were then analysed using SPSS Version 19. The number of item responses varied as most items had a small number of possible responses. However, one outcome variable identifying patient pathways was unprompted. Frequencies were described for socio-demographic characteristics and outcome variables. Some statistical analyses were done to compare differences between groups. Testing revealed no significant differences were found for gender and the impact
of gender on outcomes variables is not reported further. Descriptive statistics including frequencies were used to describe answers to each of the survey items.

**Brief Summary of Sample**

Normally a summary of a patient survey sample would be included when discussing the results of the findings. However, due to the structure of Chapter Six it was deemed more appropriate to include this information in this section.

Overall, 115 surveys were completed regarding patients aged under six. This was 50.4% of the total number of participants completing the survey at A&Ms. Of the surveys completed for patients aged under six, the largest numbers of patients came from Bairds Road, Henderson Whitecross, New Lynn Whitecross, and Takanini Care. A slightly higher number of the children who participated were male (53%) rather than female (46.1%). A significantly higher proportion of the children lived in the highest deprivation quintile (39.9%) than any other quintile (ranging from 7.8% to 17.4%).

At hospital EDs, 85 surveys were completed by parents on behalf of children aged under six. This sample was comparable with that of the A&M survey in terms of patient characteristics.

**Interviews with General Practitioners**

Interviewing is often used in health services research as a way to collect qualitative data (Padgett, 2011; Pope & Mays, 1995). It allows researchers to add depth of understanding and get ‘insider’ perspectives on the issue from those working in the health sector (Padgett, 2011). There are three main types of interviewing techniques: structured, semi-structured and in-depth interviews (Padgett, 2011; Pope & Mays, 1995). This research used semi-structured interviews, which were loosely structured around a small number of open-ended questions (Creswell, 2009; Pope & Mays, 1995).

The aim of using this data is to add a general practice perspective into this research, in order to meet the research objectives and compare responses against the findings of the other studies. A semi-structured interview format was chosen to allow the discussion to flow while still gaining specific information on a specialised issue. It also allowed for data to be obtained in a consistent way while also allowing for differences in opinion on the issue. A structured interview would have limited findings as it was difficult to anticipate what participants would want to say on the issue. An unstructured interview may have meant that particular elements were not covered, and data might have been difficult to compare between participants.

**Data Collection**

General practitioners were chosen to interview in order to gain insight into the perceptions of changes to clawback of capitation-based funding, so this could be triangulated with the data showing actual funding
clawback levels. Given their role as involved in both the practice business and in patient care, GPs would be aware of clawback levels and any perceived changes to continuity of care. GPs are also able to comment on their own reactions to changes in clawback levels. GPs are also important to understanding the consequences of the initiative on routine, within-hours primary care.

A total of five interviews with general practitioners (GPs) were carried out. Originally more interviews were planned but there was significant difficulty in recruiting GPs to this study. Research from New Zealand outlines that there are a number of barriers to recruiting GPs into research, including initial access to GPs and clinical workload of the GP (Goodyear-Smith, et al., 2009). This is also seen overseas (Rosemann & Szecsenyi, 2004). Both these barriers were found in recruiting GPs to these interviews.

Participants were purposefully selected into two sample groups. Three interviews were carried out with GPs recruited from the aforementioned MAGPG (one GP interviewed per practice) that had had a significant positive change in the number of enrolled patients aged under six attending participating A&Ms.

Two interviews were also carried out with GPs who had been identified using the A&M utilisation data as having no significant change between 2010 and 2012. The criteria for this were:

- Percentage change less than 1.5% and greater than -1.5%, or
- A total change less than 0.5 visits per month and greater than 0.5 visits per month.

This resulted with 39 possible practices to recruit from. This comparison group, whose enrolled patients’ (aged under six) utilisation had remained static, was chosen in order to allow for comparison in perceptions with the interviews from the MAGPG. This enabled comparison between reactions to actual clawback changes (that only the MAGPG would have seen), or to perceived changes to clawback.

GPs from both sample groups were recruited using email or fax. A recruitment email was sent to the practice manager or general email address for the practice. This email can be seen in Appendix 4. The participant information sheet and consent form were then sent to the GP prior to the interview. If email was not available at that practice, it was sent via fax.

GPs who were part-owners were targeted in this research as it was hypothesised that these GPs may be more conscious of changes to funding clawback, given the effect this has on capitation budgets and thus on any profit their practice may make.

Telephone interviews then took place with GPs who had consented. Telephone interviews were used in order to appeal to GPs who usually have busy schedules throughout the day and cannot give a large amount of time. Interviews were recorded, and notes were then typed up after the interview based on that recording. All recorded interviews and notes were transferred onto a password-protected computer at the University of Auckland.

The semi-structured interview format covered the following key topics:
• How their enrolled patients are directed to after-hours care;
• Awareness of the Auckland Region After-Hours Network and the Auckland After-Hours Initiative;
• Whether there have been any changes to utilisation of general practice services since the initiative began;
• Whether the initiative has had an impact on patient care and practice funding, and
• Patients’ access to after-hours care, and suggestions for improvement.

Data Analysis
Thematic analysis was used to analyse interview results. Given the semi-structured interview format employed, analysis followed the key topics the questions were organised around (Pope & Mays, 1995). As only five interviews were carried out, themes were pulled out based on frequency.

The interviews were not transcribed. Each recording was instead listened to three times by the researcher in order to become familiar with the recording, make detailed notes, and then to ensure accuracy with the notes. Using the written notes, key themes coming out of interviews in relation to the questions asked were then collated.

Ethics
Ethics Committee approval was obtained from the University of Auckland Human Participants Committee on 12 November 2012 and a variation on 21 June 2013 for 3 years. This was obtained as part of a wider ethics approval for the Auckland After-Hours Evaluation and the MSMC Acute Care project.

The A&M service utilisation data and the Procare within-hours consults data was existing summary audit data. Data showing the amount of General Medical Scheme ‘clawback’ of capitation payments is existing summary audit data provided to PHOs by the Ministry of Health. This audit data is population data and does not relate directly to participants in this study.

The survey data used followed ethical protocols and was carried out as part of the BSMC Acute Care project. Survey participants gave informed consent and could withdraw from the study prior to their survey. Surveys were administered by Research Assistants. The entire survey can be seen in Appendix 3.

For the GP interviews, prospective GPs were supplied with information about the interviews, including a participant information sheet and consent form, before they were interviewed over the telephone. Written consent was obtained from each interviewee, and participants were reminded that their telephone conversation was being recorded at the beginning of each interview. The participant information sheet and consent form can be seen in Appendices 5 and 6.
Chapter Overview

The mixed methods approach used in this research has allowed for greater understanding of the Auckland under-sixes subsidy than would have been possible using only one method. It also reflects the realistic evaluation theory underpinning this research. The wide approach of this research has been feasible by being associated with that of the BSMC Acute Care Research Project, which had already collected some of the information analysed in this research.

Five studies were used in this research, mainly for purposes of method development, and expansion and triangulation of findings. The methodology of data collection and analysis for each of these studies has been described in detail in this chapter. In particular, the way in which a key group of general practices was selected, using after-hours utilisation data, was outlined. This key group (the MAGPG) was then used for the collection and analysis of a number of the other studies.

Mixing of the five different studies occurred when interpreting results and drawing conclusions. In order to reflect the overlap of findings between the different studies, results of all studies are presented and integrated by research objective rather than by each study. This is presented in the following chapter, Chapter Six, by three research objectives of this thesis. Each of the results sections presents data showing service use or funding impact, and then expands on these findings from the perspective of parents and GPs.
Chapter Six  Results

Introduction

The following chapters reports on the key results of the five studies used in this research. These results are organised using three of the four research objectives underlying this thesis. These objectives were to identify what (intended and unintended) consequences the subsidy had on:

1. Access to after-hours care at A&Ms for children aged under six;
2. Access to, and continuity of, within-hours general practice care for children aged under six, and
3. Clawback of capitation funding, and general practitioners’ perceptions of clawback.

This structure was chosen in order to allow for expansion of results for each research objective. The sections presenting results for each research objective are organised to first show quantitative data exploring either utilisation or funding, and then to expand on the patterns seen in this data using the perspectives of parents and/or GPs. The rationale for analysis is also outlined, to reiterate how each method relates to the wider research focus.

A summary of which results are presented under which research objective is outlined in Table 4. Each research objective has both quantitative data (exploring either utilisation or funding) and expansion of this information using relevant perspectives.

Table 4: Relation of Different Methods to Each Research Objective

<table>
<thead>
<tr>
<th></th>
<th>After-hours Utilisation of A&amp;Ms</th>
<th>Within-hours Utilisation of General Practices</th>
<th>Clawback Data</th>
<th>GP Interviews</th>
<th>Parent Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Access to After-hours Care at A&amp;Ms</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Access to, and Continuity of, Within-hours General Practice Care</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Clawback of Capitation Funding</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Objective One: Consequences for Access to After-Hours Care at A&Ms

After-hours Utilisation at A&Ms

The underlying logic of the Auckland under-sixes subsidy is that subsidisation of user charges will decrease barriers to accessing that service for the subsidised patient group (Glied and Smith, 2011; Penchansky & Thomas, 1981; RAND Health, 2006; Tenbensen, et al., 2013). If this has been achieved then it would be expected that utilisation would have increased between the periods prior to and after the Auckland under-sixes subsidy began, as parents responded to the lower price (and increased affordability) of A&M services.

This section presents the data on after-hours utilisation of participating A&Ms by children aged under six, before and after the AHI began (2010 versus 2012). Number of visits and percentage increases are compared at an Auckland-wide level and then at a general practice level. Results were assumed to be significant in this chapter if p-value was less than 0.05, meaning that it is very likely that the effect reported is not due to chance alone.

Overall, utilisation of subsidised A&Ms after-hours increased significantly, by 26.75%, between 2010 and 2012. In 2010 35,468 visits were recorded for children aged under six years and in 2012 44,955 visits were recorded. This increased utilisation occurred at almost all of the subsidised A&Ms, as can be seen in Figure 3.

**Figure 3: Visits per Year to A&Ms by Children aged under Six, by Participating A&M, 2010 and 2012**
**A&M Utilisation Changes in Relation to Deprivation**

It is important to investigate whether this large increase in utilisation is spread evenly across children aged under six, or was concentrated in particular sub-groups of this population. Affordability of access is strongly affected by a patient’s (or family’s) income, in relation to the price of the service (Penchansky & Thomas, 1981). For patient groups who have a lower income, subsidisation often has a larger effect on utilisation (Barnett, Coyle & Kearns, 2000; Robinson, 2002). This can be assumed to extend to deprivation level as well. Deprivation is one way in which income can be measured in New Zealand, where higher deprivation indicates a lower income (Salmond, Crampton & Atkinson, 2007).

The results of analysis by deprivation showed that utilisation of the subsidised A&Ms increased differently depending on the deprivation of the child’s family. Quintile five is described as the quintile of the population with the highest levels of deprivation (Salmond, et al., 2007). As described in Chapter Five, deprivation was measured based on the small meshblock area a patient lived in. When comparing the percentage increase in utilisation of the participating A&M between 2010 and 2012, the largest increase was seen in children living in quintile five. Visits by quintile five children rose 32.36%, as opposed to 24.45% by non-quintile five children. This different was highly significant (p<0.001). These findings suggest that after the Auckland under-sixes subsidy was implemented utilisation, and thus affordability of the service for their parents, increased most for the quintile five patients.

**A&M Utilisation Changes in Comparison to A&M Price**

It is also important to analyse whether the average reduction in the cost of the A&M visit for children aged under six has led to a corresponding increase in utilisation. As described above, price is also a significant predictor of affordability and thus utilisation of a service (Penchansky & Thomas, 1981). Chapter Four noted that not all A&Ms were fully subsidised (free) as part of the Auckland under-sixes subsidy. Furthermore, some A&Ms had higher prices than others, prior to the beginning of the AHI. It is predicted that in areas where price has decreased the most, utilisation would have increased the most as well, as a response to the percentage price decrease.

This analysis was carried out by comparing average price changes in comparison to utilisation changes between 2010 and 2012 in the five different areas of Auckland. Table 5 shows the percentage change in utilisation for each area, as well as the average price change for an after-hours consult for a child aged under six at the participating A&Ms in each area (before and after the AHI). The price information was sourced from Tenbensel, et al. (2013).
Table 5: Percentage Change in Utilisation, and Average Price of Consult at A&Ms, by Area, Between 2010 and 2012

<table>
<thead>
<tr>
<th>Area of Child’s Residence</th>
<th>2010</th>
<th>2012</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>5968</td>
<td>7878</td>
<td>32.00%</td>
</tr>
<tr>
<td></td>
<td>$18.49</td>
<td>$9.72</td>
<td>-47%</td>
</tr>
<tr>
<td>East</td>
<td>7796</td>
<td>10961</td>
<td>40.60%</td>
</tr>
<tr>
<td></td>
<td>$10.65</td>
<td>$0.30</td>
<td>-97%</td>
</tr>
<tr>
<td>North</td>
<td>7912</td>
<td>8903</td>
<td>12.53%</td>
</tr>
<tr>
<td></td>
<td>$24.35</td>
<td>$12.84</td>
<td>-47%</td>
</tr>
<tr>
<td>South</td>
<td>7402</td>
<td>9626</td>
<td>30.05%</td>
</tr>
<tr>
<td></td>
<td>$3.14</td>
<td>$0.37</td>
<td>-88%</td>
</tr>
<tr>
<td>West</td>
<td>6390</td>
<td>7587</td>
<td>18.73%</td>
</tr>
<tr>
<td></td>
<td>$30.23</td>
<td>$0.36</td>
<td>-99%</td>
</tr>
</tbody>
</table>

Pearson Chi-Square test: $\chi^2$ (4, N = 80423) = 131.63, p<0.001.

In general, the results in this table suggest an almost linear relationship between decrease in price and increase in utilisation. This table shows that East, South and West had the biggest decreases in average price of an A&M consult. All of these areas also had a large percentage increase in utilisation. The impact on price in relation to the affordability of the services in these areas may be expected as these areas of Auckland have the lowest average income (Auckland Council, 2012). Of these three areas, East and South showed larger increases in utilisation than West did, so it seems that price decreases had a more significant impact in East and South Auckland than in West. North Auckland also saw the lowest increase in utilisation by children aged under six, and had one of the lowest percentage decreases in price.

**A&M Utilisation by Patients’ Ethnicity**

Analysis by ethnicity is also important from an equity standpoint. Sometimes, when an initiative such as a subsidy is targeted at all ethnicities, utilisation increases among some ethnicities and not others. Often utilisation increases for the largest ethnicity, towards whom the health service tends to be most tailored. Utilisation may also not increase at the same level for minority ethnicities, such as Māori and Pacific peoples, who may experience barriers other than cost, such as cultural appropriateness of the service, to accessing the health service (Ellison-Loschmann & Pearce, 2006; Robson & Harris, 2007). If such barriers were occurring, it would be expected that utilisation would increase the most for the ‘other’ ethnicity group. This would mean that the initiative would not be having an equitable effect.

As can be seen in Table 6, the largest percentage increases in utilisation between 2010 and 2012 were seen among Māori and Pacific children.
Table 6: Percentage Change in Utilisation, by Child’s Ethnicity, between 2010 and 2012

<table>
<thead>
<tr>
<th>Child’s Ethnicity</th>
<th>2010</th>
<th>2012</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Māori</td>
<td>4229</td>
<td>5860</td>
<td>38.57%</td>
</tr>
<tr>
<td>Pacific</td>
<td>10,009</td>
<td>12,951</td>
<td>29.39%</td>
</tr>
<tr>
<td>Other</td>
<td>21,230</td>
<td>26,144</td>
<td>23.15%</td>
</tr>
</tbody>
</table>

Pearson Chi-Square test: $\chi^2 (2, N = 35468) =15.69$, $p<0.001$.

A&M Utilisation by General Practice Patient is Enrolled With

It is beneficial to analyse utilisation changes by individual general practice. Utilisation of after-hours care by children aged under six is directly linked to clawback of capitation at the general practice they are enrolled. Understanding the impact of the Auckland under-sixes subsidy on individual general practices is a key underlying aspect to this research, as is addressing the fear raised that the subsidy would result in a higher level of clawback of capitation-based funding for practices (General Practice NZ, 2012). Analysing this data, rather than just the clawback funding data discussed later in this chapter, allows an average effect for most general practices across Auckland to be calculated, and allows for understanding how much clawback is directly linked to after-hours visits at the subsidised A&Ms as a result of the Auckland under-sixes subsidy.

Utilisation by year is analysed, so that a year to year comparison can be made for the year immediately prior to (2010) and immediately following (2012) the implementation of the Auckland under-sixes subsidy. It is expected that if the average number of visits per year to the participating A&Ms increased between 2010 and 2012, general practices in Auckland are also experiencing an average corresponding increase in clawback of capitation funding per year due to those visits.

Pair ed data was available for 240 practices for analysis of annual visits (per general practice). The difference in visits made between the two years by children enrolled in each practice was not normally distributed when tested. Consequently, a non-parametric test Wilcoxon matched pairs test was conducted in order to analyse changes to the number of A&M visits made by children aged under six prior to and following the initiative, by each general practice they were enrolled with.

These results also indicated a significant increase of visits per year by children under six. The increase was on average 26.11% per practice. This difference was statistically significant ($z = -8.10$, $p<0.001$). The mean number of visits made per practice in 2010 was 145.95 visits (SD=151.60). In 2012 this mean was 184.06 visits (SD=196.39).

The distribution of visits per general practice for both years is shown in Figure 4. This graph excludes extreme outliers.
Parent Perspectives: Survey of Parents Accessing After-hours Care for their Sick Children

The following section provides parent perspectives of accessing after-hours A&M care. This survey was carried out at one point in time, following the implementation of the Auckland under-sixes subsidy, and consequently only provides information on why parents made choices after the subsidy began. However, this information does provide an understanding of why parents choose to go to an A&M in 2012, in comparison to other services; their awareness of the subsidy; and barriers they encountered to accessing A&M care. Based on the rationale of the Auckland under-sixes subsidy, and the utilisation data above, it is expected that price of a service plays an important part in parents’ choices.

Access to and Choice of After-hours Care

Parents were asked why they had chosen that particular provider on the night surveyed. A number of parents chose the A&M clinic as it was open later than other clinics, or because of familiarity/proximity with the clinic.
The findings show that good accessibility to after-hours care is particularly important given that 26.1% of participants had a condition that deteriorated rapidly after-hours.

Acuity was also noted somewhat by parents of A&M patients, as while some had a condition which deteriorated rapidly, 23.5% of patients also had a condition that their parent deemed not serious enough to attend the hospital ED.

Only one patient was there because their normal GP had told them to come (referred them to the A&M).

Notably, a number of parents remarked that the clinic’s free service for children aged under six facilitated their access to care there. Nearly 12% of parents chose that A&M clinic due to its lower cost than non-subsidised A&Ms.

**Access and the Auckland Under-Sixes Subsidy**

**Awareness of Reduced Fees**

The effectiveness of an initiative can be undermined by lack of awareness among patients of its existence (Barnett, et al., 2000). Parents were asked whether they were aware of the reduced (or zero) fees for children aged under six at that A&M. Of all of the parents of children aged under six surveyed at the participating A&Ms, only 38.3% were aware that visits were subsidised. This suggests that if awareness was higher, more parents may choose to use the subsidised A&Ms based on a higher level of affordability.

**Cost of Visit**

Understanding parents’ perceptions of price may help to determine whether the main goal of the Auckland under-sixes subsidy, increased affordability of A&M services, was met. Parents were asked how much they paid for the visit and how happy they were with that price. Of the 63 parents who answered this, only 68.25% (43 participants) reported that the service was free. 12.6% (8 participants) reported the co-payment as less than $20, and 7.9% (5 participants) were charged between $20-40.

One participant (1.6%) was charged between $41-60, and 9.52% (6 participants) were charged over $60, which is higher than any of the participating A&Ms should be charging for children aged under six (see Table 2 in Chapter Four). Investigation of this issue found that these oddly high charges all occurred on one night, at one particular A&M. Further investigation of this issue may be necessary.

Of those who received a free or less than $20 consultation, almost all of their parents were either happy or very happy with the cost of the consultation, signifying that parents are happy with the Auckland under-sixes subsidy.

**Acuity and Choice**

The relationship between the acuity of the patient’s condition and their parent’s choice to attend the A&M was also explored with questions regarding what their parent would have done if the A&M clinic was not open. The aim of this was to provide insight into whether A&M services are being used for routine, not urgent, primary
care as was argued by GPNZ (General Practice NZ, 2012). 14.8% of parents responded that they would have waited for the family doctor; 60.9% said they would have taken their child to the hospital Emergency Department, and 38.3% said that they have gone to another A&M clinic. These percentages do not add up to 100% as parents could give more than one response. The information from parents indicates that most participants perceived that their child’s condition needed urgent treatment.

Comparison to Patients Attending Hospital Emergency Departments
Survey data was also available for 85 children aged under six whose parents were surveyed at hospital EDs. This information is included as some of the ED responses relate to the decision made by parents not to go to an A&M. It is also useful to compare A&M and ED parent survey responses, particularly in relation to why that service was chosen by parents, as this can be used to help explain other data, or add information to what was found in the GP interviews.

There were some key differences, however, with the A&M survey results. A large number of patients (32.9%) presented at the ED because their normal GP had told them to come. This is significantly higher than the one patient (0.65%) who was referred to an A&M by their GP.

Some parents also chose the ED as the A&M clinic they were aware of was closed (4.7%), or because the A&M clinic had told them to come to the ED (11.8%). 30.6% would have taken their child to the A&M if they had been unable to go to the ED. Parents presenting at the ED noted that they preferred to go to a clinic that specialised in children, unlike A&Ms. Some parents also thought quality of care for their child would be higher in a hospital.

Cost was mentioned by a number of parents at EDs, with 4.7% reporting that they used the ED because GPs and A&Ms are too expensive, and 7.1% choosing the ED as it is free.

Provider Perspectives: GP Interviews
Five GPs participated in interviews. As described in Chapter Five, three of these GPs were chosen from the MAGPG. The other two GPs interviewed were in a comparison group who had seen no increase in utilisation of participating A&Ms by their enrolled patients. All the general practices are part of the ‘Zero fees for under sixes’ scheme. As only five interviews were carried out, results cannot feasibly be compared between the two groups for every theme. However, in general, results were very similar for both groups. If results did diverge, it is stated.

GP interviews were particularly important to understanding whether GPs believe their patients are using subsided A&Ms for routine care, in substitution of their own services, as feared by GPNZ (General Practice NZ, 2012). The interviews also discuss awareness of the Auckland under-sixes subsidy by GPs, who may be the main source of health services information for some patients.

Patients’ Access to After-hours Care
The following section adds a greater insight into the provision of after-hours care services in Auckland. All the GPs interviewed were signed up to HML telephone triage services. As described in Chapter Four, HML telephone triage is a service for patients of participating practices. For GPs who sign up to HML, patients who call their GP’s phone number after-hours have their call redirected to HML, which is staffed by trained triage nurses. One of the participants lives on the edge of a rural area in Auckland. This GP is a part of a coalition of around 15 GPs in the area who are funded by their PHO to provide after-hours medical advice over the phone if more advice is needed, a scheme separate from HML.

Most participants had a good understanding of which A&Ms their patients attended in that area. However, they reported that often medical notes are not sent back to their practice from A&Ms. Some of the participants’ practices also provide some extended-hours care; this means their practice is open later than within-hours care, or for some hours on the weekend.

The broad perception of after-hours care in Auckland was that it was meeting most patients’ needs. Participants acknowledged that it was a difficult environment to try and fund a range of after-hours services to meet different patient needs. Lack of affordable home visits was also reported as an issue by interviewees. Another suggestion was that there should be a primary care clinic next to the hospital from which patients could be triaged into ED or to a primary care provider like an A&M. This linked into the perception that there were many patients in Auckland ‘inappropriately’ using ED services, although ‘inappropriate’ A&M use was not defined by any participants.

One GP perceived that, over the last ten years, there had been an increase in the level of patient education and understanding of services available. This GP believes that patients mostly understand when after-hours care is necessary. It was acknowledged by this participant that this could be improved.

**Auckland Region After-Hours Network (ARAHN)**

Most doctors had either not heard of the Auckland Region After-Hours Network (ARAHN) or knew very little about its role. One GP interviewed had some knowledge through working with an A&M in the area, but could only describe that it was a consortium of providers that negotiates with the DHB to provide extended after-hours care.

**Auckland After-Hours Initiative (AHI)**

The participants had very limited knowledge about the Auckland AHI. Only two GPs could describe that it involved extended opening hours, and subsidies for some groups, at selected A&Ms. However, they did not know that it also included expanding general practice access to HML phone triage services.

One participant said that there had been much less ‘poaching’ of patients since 2010, in that patients are not encouraged to sign up with a GP who they attend for after-hours care.

One GP felt very strongly about the AHI as this GP’s practice also provides extended opening hours. This GP found it “unfair” that the same funding was not provided to general practices (as it was to A&Ms), particularly
as this participant believes there is no requirement for general practices to provide after-hours care. This GP remarked that:

I've got no problem with increasing access to after-hours care but it is being applied very unevenly and I can’t think of any reason why, assuming funding is attached to patient rather than bulk funding, there is no reason we shouldn’t benefit from AHI funding as well as Whitecross and others.

In general, GPs were happy about the Auckland under-sixes subsidy and increased access for patients to after-hours care. Some participants described the difficulties across New Zealand in access to primary care, and resulting health issues such as rheumatic fever. This was seen as particularly important for children.

**Patients’ Use of A&M Services**

Most GPs explained that their patients aged under six were attending the subsidised A&Ms for urgent and non-routine care. This urgent care includes coughs, colds, and fever.

However, some observed that on weekends A&Ms were used for convenience, or were used when their practice was open during the day. A participant stated “it is easy for them (the parents of children) to go to another doctor, they don’t have to pay”.

One GP described that they could clearly see from patient notes that they to an A&M after-hours for a (GP-defined) non-urgent issue. Yet, when probed, this GP did mention that perhaps some of these cases may be seen as urgent by the parents of these children.
Objective Two: Consequences for Access to, and Continuity of, Within-Hours General Practice Care

Within-hours Utilisation

One of the concerns raised in regards to subsidising after-hours care for young children was that it would create an incentive for parents to utilise after-hours care in place of routine primary care, as it may be more convenient to access care after-hours. It was anticipated this would occur if both within-hours and after-hours, services are free. Substituting routine within-hours care for A&M care could lead to reduced continuity of care, or may result in increased casualisation of patients (who do not enrol at any particular GP). All of these factors could affect clinical quality of care and health outcomes (General Practice NZ, 2012; Tatham, 2011; Topham-Kindley, 2011).

This section presents data showing within-hours consults at 133 Auckland general practices, before and after the Auckland under-sixes subsidy began (2010 and 2012). If parents were taking children to an A&M instead of their within-hours provider for routine primary care (due to the subsidised cost of A&Ms) as feared, then within-hours utilisation would decrease after the introduction of the subsidy.

Information was available on the number of within-hours consults occurring at different Procare PHO general practices across Auckland. Results are presented for children aged under six, in order to see the effect of the subsidy on within-hours utilisation. Results are also presented for all patients aged six and over, as a comparison group in the same time period, because their A&M visits are not subsidised, or not subsidised to the same extent.

Patients Aged Under Six

Comparison of consults for children aged under six can be performed using paired data, which was available for 133 Procare practices. A Wilcoxon matched pairs test was again used in order to analyse changes to the number of consults carried out for children aged under six, per general practice, between 2010 and 2012.

The results indicate that the mean number within-hours consults per practice for children aged under six increased 134.67% between 2010 and 2012 (z = -9.56, p<0.001). The mean number of consults per year and per practice was 344.95 (SD=381.56) in 2010. In 2012 the mean was 809.51 consults per year (SD=862.92). The distribution of visits per general practice for both years is shown in Figure 5. This graph excludes extreme outliers.
Figure 5: Distribution of Consults per General Practice, for Patients aged under Six, 2010 and 2012

Utilisation within MAGPG

Within-hours consults for most of the MAGPG are also shown below. As not all 18 of these practices are Procare practices, and not all Procare practices had data available, within-hours utilisation data was only available for 13 of them.

The number of within-hours consults for children aged under six per years at these 13 practices rose 127.84% from 2010 to 2012. In 2010, the mean number of consults per practice was 461.53 (SD=474.52). In 2012 this mean was 1051.54 consults per year (SD=778.23). The mean number of consults per year, per practice, is higher than the mean of the total population of Procare practices in both years. This may be reflective of the criteria for selecting these practices, particularly that they have a number of patients aged under six enrolled with them who may also be attending A&Ms. However, the percentage increase is very similar.

Patients Aged Six and Over

As mentioned earlier, it is useful to compare within-hours utilisation between children aged under six, and all patients aged six and over. This will allow for comparison in the same time period with a population group whose A&M visits are not subsidised, or whose co-payments are not subsidised to the same extent. This can aid analysis of whether within-hours utilisation decreased for children aged under six as a result of the Auckland under-sixes subsidy, as was feared (General Practice NZ, 2012).
Comparison of consults for patients aged six and over can be performed using the paired data available for the same 133 Procare practices. As with the other data, a Wilcoxon matched pairs test was again used in order to analyse changes to the number of consults carried out for all patients six and over, per general practice between 2010 and 2012.

This showed a different trend to that of patients aged under six. There was little change (a 6.4% increase) in the number of consults carried out within-hours for patients aged six and older. This increase was not statistically significant difference ($z = -0.98, p=0.327$). The mean number of consults per year and per practice was 13,920 consults per year (SD=11,739.81) in 2010. In 2012 this mean was 14,812 (SD=12,764.46). The distribution of visits per general practice for both years is shown in Figure 6.

**Figure 6: Distribution of Consults per General Practice, Patients aged Six and Over, 2010 and 2012**

![Figure 6: Distribution of Consults per General Practice, Patients aged Six and Over, 2010 and 2012](image)

**Parent Perspectives: Survey of Parents Accessing After-hours Care for their Sick Children**

This section provides a parent perspective to expand on the utilisation data above. This survey was carried out at one point in time, following the implementation of the Auckland under-sixes subsidy, and consequently may only provide information on parents’ recent experiences of within-hours care. The barriers experienced by parents when trying to access within-hours care may contribute to why they chose to attend an A&M for their child’s care that day. Parents may be choosing to use A&M care for routine care as it is more convenient (as
was argued by GPNZ (General Practice NZ, 2012; Tatham, 2011). However, they could be using A&M services as they cannot access within-hours care when needed. The questions parents were asked in this survey explored this possibility.

**Access to General Practice Services**

Parents of the 115 children aged under six who were surveyed at A&Ms were also asked about access to general practice services within-hours, and the relevance this had to their choice to go to the A&M that night.

Almost all (96.5%) of the children at A&Ms had a usual family doctor or medical centre they went to when they were sick. For some children (27.8%) their GP was based at the A&M clinic they were surveyed at. However, for the rest (72.2%) their usual GP was based elsewhere.

Of the children surveyed, 62.6% were taken to the A&M as their usual GP was closed, and 10.4% of patients went because their normal GP had no appointments available.

Parents at A&Ms remarked on the difficulty of getting a GP appointment, getting an appointment at a convenient time, and the difficulty of going to the GP when looking after other children. Comments did reflect that parents would prefer to attend their GP if possible.

Also related to acuity is the finding that 68.7% of A&Ms patients would have been taken to their usual GP if it was open at that time. This is quite similar to the finding that 61.2% of ED patients would have gone to their usual GP if it was open at that time.

Parents were also asked whether they had taken this child to an A&M (either that night or a previous night) as they could not get a GP appointment at their usual GP. At A&Ms, 40.0% of parents had gone to an A&M in the past 12 months as they had not been able to get a quick appointment for their child. This is significantly more than parents in the ED survey population, of whom 16.5% of parents have taken their child to an A&M because they could not get a GP appointment.

**Comparison to Patients Attending Hospital Emergency Departments**

Parents of children attending hospital EDs were also asked about access to within-hours primary care. The responses of parents at EDs, in comparison to responses to the same questions among parents at A&Ms, can be seen in Table 7.
Table 7: Comparison between A&M and ED Parent Survey Responses, Access to Within-Hours Care

<table>
<thead>
<tr>
<th>Question</th>
<th>Percentage of Parents Who Responded Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A&amp;M</td>
</tr>
<tr>
<td>Taken to ED as GP closed</td>
<td>62.6%</td>
</tr>
<tr>
<td>No appointment available at GP</td>
<td>10.4%</td>
</tr>
<tr>
<td>Would have waited to go to GP</td>
<td>14.8%</td>
</tr>
</tbody>
</table>

In comparison to the A&M survey, these results suggest that among ED participants the child’s condition may be perceived as more urgent, and in need of a higher level of care than GP or A&M services, than in the A&M survey.

Provider Perspectives: GP Interviews

*Perceived Changes to Within-hours Utilisation since the Initiative*

GPs were asked about whether they had noticed any changes to utilisation of their own services since the Auckland under-sixes subsidy began. As with the within-hours general practice utilisation data, this aimed to understand whether the subsidy had resulted in parents utilising after-hours A&M care in place of routine primary care. GPS were asked about this in their interviews.

The broad perception of GPs was that there had been very little change in utilisation of their services since the AHI initiative began. All were aware of the potential for this possible ‘threat’ to their business, as patients may choose to go to A&Ms instead of their normal GP if both are free or similar prices. However, none of the participants interviewed had investigated whether this was occurring at all. Again one GP was strongly against the fact that it is free at A&Ms after-hours, while their practice has to charge a surcharge for extended-hours services in order to keep their business running. However, this GP had no knowledge of this actually affecting their patients’ decision-making.

*Perceived Effect on Continuity of Within-hours Care*

These interviews also aimed to shed light on whether continuity of GP care had been negatively affected as a result of the Auckland under-sixes subsidy. GPNZ contended that continuity of care will not be developed if a child attends an A&M instead of their regular GP (General Practice NZ, 2012). As described in Chapter Two, it is important that patients have an on-going relationship with a primary care provider. This is particularly true for children (Blumenthal, et al., 1995). GPs were asked to comment on whether they think continuity of care with their young patients has been reduced as a result of the Auckland under-sixes subsidy.

While GPs noted that there would be an effect on continuity of care if patients chose to use A&M services instead of general practice services, they had not seen very much evidence of this. Some also felt that patients used after-hours services for health problems that were not necessarily important for maintaining continuity of
care, such as fevers and colds. They also described following up with patients who used A&Ms the next time they saw the patient.

One GP pointed out that there are always going to be some issues with continuity of care given that a GP cannot provide 24 hour care every day for individual patients. However, he stated that this will become a problem if it is happening “needlessly”. Some GPs also mentioned a lack of integration with A&M services because they often did not receive notes when a patient had received A&M care.

**Relationship between After-hours and Within-hours Utilisation**

The results shown previously in this chapter have analysed each study separately. This section presents the analyses of both sources of service utilisation data together for each general practice. After-hours and within-hours data for each practice were compared together (for the same time period) in order to see whether there was a relationship between patients using the after-hours service (A&M) instead of their within-hours service (their general practice).

If children aged under six are using subsidised A&Ms more, and using their normal GP less (as was feared could occur) it is anticipated that A&M utilisation would increase at each practice between 2010 and 2012, and the number of within-hours consults would decrease in the same time period. This data is only mixed for 13 of the MAGPG. The MAGPG was chosen for this analysis due to the feasibility of mixing it for all practices in Auckland. Mixing could also only be done for the 13 practices for which Procare supplied within-hours. Figure 7 shows the mean number of within-hours consults and after-hours visits by enrolled patients, per selected practice, in 2010 and 2012.
This graph shows that, while visits to A&Ms had increased substantially from 2010 to 2012 (as would be expected given the inclusion criteria of the selected practices used in the above graph), within-hours visits increased significantly more at these practices at the same time. This suggests that A&M services are not being substituted for within-hours general practices services as was feared (General Practice NZ, 2012).
Objective Three: Consequences for Clawback of Capitation Funding

Levels of Clawback of Capitation-based Funding

One of the key concerns regarding subsidisation of after-hours care for children aged under six was that it would result in increased clawback of capitation-based funding for general practices. If patients use A&M services more, more clawback will be triggered to pay for the GMS cost of those visits. This may pose a significant financial risk to providers (General Practice NZ, 2012).

The aim of this section is to provide information regarding the levels of clawback of capitation funding at selected general practices (the MAGPG) immediately prior to and following the implementation of the Auckland under-sixes subsidy. These general practices were chosen as it was anticipated (based on the A&M utilisation data) that they would have experienced a significant increase in the amount of clawback at their practices since the Auckland under-sixes subsidy began. If this had occurred, these general practices would be those in Auckland most impacted by increases to clawback as a result of the subsidy.

Data showing number of visits that were being claimed for by the subsidised A&Ms in 2010 and 2012 for children aged under six, by general practice, was obtained from the Ministry of Health. The data can be used to infer the amount of GMS ‘clawback’ of capitation payments occurring at each of the 18 selected practices. Results are presented by total number of visits and estimated amount of clawback that could incur. This is based on the fact that each visit to an A&M triggers $31.11 of clawback.

This analysis does not take into account the stop loss function, where clawback is limited to up to four visits per child per month, because data was provided at a summary level rather than an individual patient level.

Clawback per General Practice

Overall, there were 7000 patients who were both enrolled in one of the 18 selected general practices in the MAGPG and attended a participating A&M (while aged under six years) in either 2010 or 2012: 2932 in 2010 and 4068 in 2012. The clawback attributed to these patients, per general practice, can be investigated by year and by month, given that general practices are notified monthly about clawback levels.

Clawback per Month

In 2010 there were on average 21.76 visits (SD=10.45) being made to the selected A&Ms, per month, per selected practice. This results in an average clawback of $677.01 per practice per month (SD=$325.15). The number of visits per month ranged from 1 to 60, and the amount of clawback ranged from $31.11 to $1,866.60.

In 2012 this average was 29.93 (SD =15.587) visits per month per practice. This results in an average clawback of $931.01 per practice per month (SD=$484.91). The number of visits per month ranged from 1 to 84, and the amount of clawback ranged from $31.11 to $2,613.24.
This is an average 37.55% increase in the mean number of visits per month, per practice. The difference in mean between the years is highly significant (p<0.001).

**Clawback per Year**

Clawback per practice for 2010 and 2012 was then compared as paired data together. A non-parametric Wilcoxon matched pairs test was conducted in order to analyse changes to the number of A&M visits made by children aged under six prior to and following the initiative, and the resulting clawback that occurred, for each GP selected general practice. This sample is slightly smaller than the sample comparing clawback by month, as there needed to be 12 months’ worth of data for a practice to be included in the comparison by year.

The results indicated that there was a statistically significant difference (z = -3.724, p<0.001) in the number of visits made by children aged under six to participating A&Ms (which led to clawback), between 2010 and 2012.

In 2010 the mean number of visits per practice children aged under six made to a participating A&M, for the year, was 228.50 (SD=122.10). This ranged from 0 to 435 visits. In 2012 the mean number of visits per practice children aged under six made to a participating A&M, for the year, was 339.17 (SD =155.62). This ranged from 24 to 655 visits.

There was also a statistically significant difference (z = -3.724, p<0.001) in the level of clawback at each practice per year, between 2010 and 2012.

In 2010 the mean amount of clawback per practice for the entire year was $7,108.64. This ranged from $0 to $13,533 clawed back. In 2012 the mean amount of clawback per practice for the entire year was $10,551.48. This ranged from $747 to $20,377 clawed back.

This is an average increase of 48.43% in clawback per practice, per year, between 2010 and 2012.

**Clawback by Area of Practice**

The amount of clawback of funding accrued per general practice, per year, can also be viewed by the area where practices are located. Most practices in the MAGPG were located in South Auckland (seven practices). Five practices were located in Central Auckland, and a further five located in East Auckland. Only one practice was located in West Auckland (that did not have information available for 2010), and no practices were located in North Auckland.

Figure 8 outlines the mean amount of clawback per practice per year, by area of practice.
This figure shows that in Central, East and South Auckland there were increases in clawback between 2010 and 2012. These increases were largest in East and South Auckland.

**Relationship to All Clawback**

The levels of clawback described above in this section only relate to clawback that is due to visits at the selected A&Ms. The analysis above suggests there has been an increase in clawback over time due to visits from children aged under six at the subsidised A&M practices. However, it is useful to also compare this to all clawback that occurs, as this information is what is supplied to GPs monthly.

Summary information was also provided by the Ministry of Health regarding all clawback across Auckland. This suggests that all clawback Auckland-wide, including clawback from patients visiting other GPs within-hours, not just A&Ms, has changed very little over the last four years, including between 2010 and 2012. The same trend is also seen nationally. This information is presented in Table 8.
Table 8: Levels of All Clawback in Greater Auckland and New Zealand, 2007/08 to 2011/12

<table>
<thead>
<tr>
<th>Year</th>
<th>Area</th>
<th>Clawback levels ($)</th>
<th>Number of Visits Causing Clawback</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007/08</td>
<td>Auckland</td>
<td>$10.8 million</td>
<td>309,278</td>
</tr>
<tr>
<td></td>
<td>New Zealand</td>
<td>$22.0 million</td>
<td>628,809</td>
</tr>
<tr>
<td>2008/09</td>
<td>Auckland</td>
<td>$10.4 million</td>
<td>296,159</td>
</tr>
<tr>
<td></td>
<td>New Zealand</td>
<td>$21.5 million</td>
<td>613,374</td>
</tr>
<tr>
<td>2009/10</td>
<td>Auckland</td>
<td>$9.6 million</td>
<td>274,025</td>
</tr>
<tr>
<td></td>
<td>New Zealand</td>
<td>$19.8 million</td>
<td>564,742</td>
</tr>
<tr>
<td>2010/11</td>
<td>Auckland</td>
<td>$9.5 million</td>
<td>267,828</td>
</tr>
<tr>
<td></td>
<td>New Zealand</td>
<td>$19.7 million</td>
<td>554,211</td>
</tr>
<tr>
<td>2011/12</td>
<td>Auckland</td>
<td>$9.5 million</td>
<td>265,160</td>
</tr>
<tr>
<td></td>
<td>New Zealand</td>
<td>$19.5 million</td>
<td>547,879</td>
</tr>
</tbody>
</table>

Source: Communication with the Ministry of Health

Provider Perspectives: GP Interviews

These interviews aid understanding of whether GPs have noticed higher levels of clawback of capitation funding. Only some of the GPs have experienced increases (based on the A&M utilisation data) and others probably have not. Comparison of the perceptions of the two groups may clarify whether GP perceptions of (and reactions to) clawback are due to perceived or real increases.

The GP interviews also give information regarding any methods GPs may have used to avoid clawback of capitation occurring since the Auckland under-sixes subsidy began. This could include general practices electing not to enrol or disenrol children aged under six, which was a possibility raised by GPNZ (General Practice NZ, 2012).

Perceptions of Clawback

Throughout all the interviews, GPs expressed concern about clawback of their capitation-based funding from their patients (especially those aged under six) attending the subsidised A&Ms, and the effect this has on budgeting.

There was a general perception of parents behaving ‘inappropriately’ in some way if they took their child to the A&M unless it was what the provider defined as urgent, as it resulted in clawback. For example, one GP stated that a lot of the patients who attract clawback “are very anxious people out there who want to see a doctor right now for minor symptoms, but it could usually have waited until the next morning.”

In general, there was no difference in perceptions of clawback between the three GPs in the MAGPG, and the two participants from the comparison group. In fact, one of the participants most worried about clawback...
came from the comparison group, while the GP who seemed least worried about clawback came from the MAGPG. This may suggest that GP perceptions of (and reactions to) clawback are due to the perceived threat of clawback, rather than actual reductions of their capitation funding due to clawback.

**Clawback Levels at Their Practice**

The interviews revealed that most GPs had not looked at whether clawback levels had risen since the Auckland under-sixes subsidy began, and in general did not think that the level had risen. While GPs receive a monthly report on clawback, most participants only viewed it at an individual patient level to see which patients are attracting large amounts of clawback. The general perception was that the majority of clawback occurs as a result of after-hours visits to A&Ms.

**Reactions to Possibility of Clawback**

There were strong opinions on, and reactions to, the perceived threat of clawback. The general perception of these consequences was that they were the product of the capitation-based funding system, which allowed for clawback from A&M visits. However, it is not known whether these consequences had always occurred under the capitation-based funding system, or whether they have occurred since the idea of a subsidy for after-hours access was introduced either regionally or nationally.

Two of the GPs were afraid that clawback has changed access to their practice. Some noted that their practice stays open later, or fits in urgent appointments during the day for children aged under six, so that their parents do not take them to an A&M that night.

Some of the participants also reported that they, or their practice manager, go through the monthly report on clawback in order to identify patients who are attracting clawback, and are thus identified as affecting the practice’s funding. GPs described using these reports to do the following:

1. **Send a Letter to Parents Who Use A&Ms “Unnecessarily”**

   One GP reported that their practice sends a letter to parents of children who the GP sees as using the A&M “needlessly”, i.e. are using the A&M for non-urgent care. This GP reviews the patient notes in conjunction with the monthly clawback summary and pulls out patients who have gone to the A&M for what the GP perceives as a non-urgent medical problem. This letter reminds patients about the importance of continuity of care and also notes that the GPs funding is affected when patients make this choice. A copy of this letter was provided by this GP and can be seen in Appendix 7.

   The GP who sends this letter noted that some patients have been a bit “defensive” about it. This GP reported that this is unnecessary as “often they have what in their mind was legitimate reasons, but in fact it could have waited if they had stopped and thought about it for a minute”.

2. **Disenrol Patients Aged under Six**
Another participant reported that their practice disenrols patients aged under six who use A&Ms “a couple of times in a month”. This is because of the effect it has on capitation-based funding and budgeting. This means patients are charged casual fees the next time they access the GP, and so do not receive free within-hours care. They noted that “if someone else is silly enough to enrol them, then they’ll (the general practice) find they are paying for their healthcare instead of the patient”. This doctor does not notify patients when they are disenrolled from the register.

3. Refuse to Enrol Patients Aged under Six who Live Closer to an A&M

One GP stated that they refused to enrol any patients aged under six who live closer to the nearest A&M than to their general practice. This GP stated that, as proximity is the key factor in patient choice of care, refusing to enrol patients who live closer to the A&M (than their practice) reduces clawback payments. This GP does tell patients of this when they enrol with the practice.

4. Refusal to Enrol All Patients Aged under Six

Two participants reported that there are many GPs in the area who refuse to enrol any children aged under six because of possible clawback risks. Both of these GPs described this practice as unethical or wrong, but necessary for some GPs to keep their businesses sustainable. One pointed out that “you can’t blame doctors because we are losing”.

These GPs reported that patients are not notified about this when they enrolled with practices. They are still able to get appointments (at a higher cost) as a casual patient.

**Clawback of Capitation-based Funding System In General**

The worry about clawback extended to anger about the unfairness of this national system. GPs remarked that if they want to avoid clawback they need to be available constantly, which is not feasible. They also mentioned that there is no clawback from ED attendances. It was perceived as “unreasonable” and “unfair” that they are responsible for their patients’ choices.

One doctor noted that there is probably a “pile of patients around with no registered doctor – I don’t think that’s healthy. That’s the result of a government policy, and the result of the government policy... (which tries) to get somebody else to pay for children’s healthcare”. This participant feels strongly about this issue and believes that the current government is “unfriendly” towards primary care providers. Another GP said that “if they remove this deduction from us we can enrol the patient and they will get better care”.

**Perceptions of the National Directive**

GPs were asked about the national directive that all after-hours care for children aged under six be provided free at the point of use. All GPs had heard of this policy in some form. Most agreed with this idea, and believed it would improve access to primary care and improve health outcomes.
However most participants also felt that the directive needs to have specific funding attached to it. One noted that “I’m happy to provide that (after-hours care) at no charge, once he (the Minister of Health) pays us for doing it!” Another participant felt that there needs to be specific resources attached to the policy for each DHB. One GP interviewed was very supportive of the national policy and was not worried if clawback increased at his practice, as many of the children in that area have high health needs and come from low-income families.

Chapter Overview
This chapter has outlined the results of each of the research methods used in this research. All the findings were organised around three of the four research objectives employed in this thesis. This order was specifically chosen so that, given the mixed methods design of this research, results for each objective could be compared side-by-side. Each section first presented the relevant quantitative data for that research objective (showing either utilisation or funding trends over time) and then expanded on these patterns using the perspectives of parents and GPs.

The main results of this section show that:

- Utilisation of subsidised A&Ms increased by 26.75% between 2010 and 2012.
- There is limited awareness among parents and GPs of the Auckland under-sixes subsidy.
- Choice of after-hours service is based on price, proximity, and familiarity.
- GPs seem to be referring children to A&Ms much less than to EDs (as reported by parents).
- GPs report that A&Ms are mostly being used for urgent rather than routine care.
- The number of within-hours general practices consults occurring per practice increased an average 134.67% between 2010 and 2012.
- There has been little perceived negative effect on continuity of care from the Auckland under-sixes subsidy.
- There has been an increase in after-hours clawback at some practices from the subsidised A&Ms. Yet this is probably mitigated by a decrease in clawback from within-hours visits, and overall stable levels of all clawback.
- The research identified a number of defensive methods being used by GPs to avoid the perceived threat of clawback.

The following chapter will integrate and discuss the different findings of each research objective, allowing for triangulation and/or expansion of the information. The chapter will then discuss the implications of these findings in relation to other primary care policies, and the national directive.
Chapter Seven  Discussion and Conclusion

Introduction

This chapter discusses the key findings from this research. This thesis examined how the implementation of a subsidy for after-hours care for children aged under six years in Auckland impacted on access to and provision of primary care services in the region.

It specifically investigated what (intended and unintended) consequences the subsidy had on:

1. Access to after-hours care at A&Ms for children aged under six;
2. Access to, and continuity of, within-hours general practice care for children aged under six, and
3. Clawback of capitation funding, and general practitioners’ perceptions of clawback;

And aimed to:

4. Identify the implications of the Auckland under-sixes subsidy when combined with other primary care policies in New Zealand.

First, this chapter summarises the positive and negative consequences of the Auckland under-sixes subsidy. This chapter then discusses the key findings that were presented in Chapter Six from each of the first three research objectives above, in relation to current health services research literature. Additionally, it integrates the findings from different objectives to generate a full understanding of the consequences of the Auckland under-sixes subsidy.

This chapter then discusses the fourth research objective, the implications of the Auckland under-sixes subsidy when combined with other primary care policies in New Zealand. Based on these implications, a number of recommendations for improvement are made.

The significance of the findings of this research in relation to the national directive are then discussed. Finally, the strengths and limitations of this research, and future research directions are considered, prior to the conclusion.

Summary of Key Results

The results of this research have identified the following positive and negative consequences of the Auckland under-sixes subsidy on primary care provision and access. Consequences are normatively described as positive or negative in this list. A consequence was labelled positive or negative based on the review of literature in Chapter Two and Chapter Four, for example access to after-hours care is seen as positive while cream-skimming is seen as negative. These consequences are explained further in this chapter.

Positive Consequences
• Increased access to and utilisation of subsidised A&Ms due to improved affordability, particularly in areas where the subsidy was largest or income lowest.
• Parents are choosing this service based mostly on the subsidised price; however, factors such as familiarity and proximity of the A&M are also important.
• Subsidised A&Ms are mostly being used for urgent rather than routine care.
• There have been no negative effects on continuity of care from the subsidy (as reported by GPs).
• There was a large increase in within-hours utilisations since the Auckland under-sixes subsidy began, suggesting that parents are not substituting use of A&M care for within-hours services.

**Negative Consequences**

• The effect of the Auckland under-sixes subsidy may be limited by awareness of the initiative, and other factors.
• Children are not being referred to A&Ms by their GPs, and GPs are referring to EDs, possibly to avoid clawback of capitation funding.
• There has been an increase in after-hours clawback from the subsidised A&Ms. However, this is mitigated by a decrease in clawback from within-hours visits, and overall stable levels of all clawback. Thus it is unlikely GPs are aware of any increases to clawback as a result of the subsidy.
• The research identified a number of defensive methods being used by GPs to avoid the perceived threat of clawback. These methods are a form of cream-skimming, where practices try to avoid enrolling patients who (may) incur loss of capitation funding. These defensive methods could reduce within-hours access to care, and raise equity issues.
• It is likely there are still difficulties for young children in accessing within-hours care, which are exacerbated by the defensive practices used by GPs to avoid clawback.

Many of the consequences outlined above were not the intended effect of the Auckland under-sixes subsidy, and some of the negative consequences listed are adverse to the aims of the AHI initiative. Each of these findings is discussed in more depth following this section. This discussion is organised by the three research objectives also used in Chapter Six.
Objective One: Consequences for Access to After-Hours Care at A&Ms

Impact on Affordability

The Auckland under-sixes subsidy seems to have succeeded in achieving its main goal: to improve the affordability of after-hours services for children under six. Overall, utilisation of the subsidised A&Ms has significantly increased between the year prior to its introduction, and the year following. This increase was seen across Auckland, and when visits were compared per GP practice children were enrolled with.

Increased utilisation was particularly seen among patients with higher levels of deprivation. Utilisation increased most after the subsidy was introduced among children living in quintile five, the most deprived quintile of the population, in comparison to all other children. Table 5, showing change in utilisation and change in average price, also showed an almost linear relationship between decrease in price on average in an area, and increase in utilisation. This is consistent with the previously mentioned aspects of affordability (Penchansky & Thomas, 1981).

Children from Māori and Pacific families increased utilisation of the subsidised A&Ms significantly more than children from other ethnicities after the introduction of the Auckland under-sixes subsidy. This is positive from an equity standpoint. The results indicate that after the Auckland under-sixes subsidy was introduced, the cost barrier of accessing A&Ms decreased for parents of Māori and Pacific children. This is positive as initiatives (such as subsidies) can sometimes be less effective for minority ethnicity groups if there are other barriers, like cultural appropriateness of services, to accessing the service (Ellison-Loschmann & Pearce, 2006; Robson & Harris, 2007). However, the findings of the utilisation data suggest that is not the case. Given that Māori and Pacific ethnic groups in New Zealand have on average a lower income than other ethnicities, it is expected that this increased utilisation also indicates improved affordability of the service for these groups (Salmond, et al., 2007; Robson & Harris, 2007).

Taken together, these results suggest that previously cost was a barrier to access to A&Ms for children aged under six. When the Auckland under-sixes subsidy was introduced, utilisation increased and it can be assumed that this means need for primary care is being met as a result. This is consistent with the literature on targeted subsidisation (Ashton, 1992; Creese, 1991; Glied & Smith, 2011; Lohr, et al., 1986; Olsen, 2009; Robinson, 2002). It also suggests that prior to the initiative cost was a significant barrier, which is also consistent with literature regarding children’s access to care (Leibowitz, et al., 1985). However, it is unclear whether all of this increase is for needed medical care, or whether demand for unnecessary care has also increased (Glied & Smith, 2011; RAND Health, 2006).

Also consistent with other research is that those clinics that were fully subsidised, i.e. free at the point of use, saw a greater increase in utilisation of their services by children aged under six. A number of surveyed parents noted that they went to the A&M because it was free (Cumming & Mays, 2011; Leibowitz, 1985).
However, research also suggests that uptake of subsidies is limited by awareness of the subsidy (Barnett, et al., 2000). The results of the parent survey suggest that awareness of the Auckland under-sixes subsidy among parents is relatively low (38.3%). One GP also reported that there needs to be an improvement in patient education about available services, and many of the GPs themselves did not know much about the AHI and Auckland under-sixes subsidy. These findings suggest that if parents were more aware of the subsidy, the impact the lowered price could have on parents’ decisions and on utilisation of the subsidised A&M could be even larger. Furthermore, general practice services may be the main source of health services information for some patients. If providers were more aware of the subsidy, they may pass this information onto their patients or parents.

Uptake of the Auckland under-sixes subsidy may also be constrained if the level of co-payment was not free and thus too expensive. Only 68.25% of visits for children aged under six were reported by parents as being free and 4.7% of caregivers at EDs also noted that that they did not go to the A&M because it was too expensive. Again this is consistent with the literature, arguing that clinics that are not fully subsidised will not see the same increases in access as those that are (Leibowitz, 1985). Uptake of the subsidy may also be constrained by other aspects of access, such as geographic accessibility and accommodation of services (Penchansky & Thomas, 1981).

However, increasing the affordability of, and thus access to, after-hours primary care for children aged under six was the main goal of this initiative. The findings of this thesis suggest this did occur. This is positive in light of the particular importance of after-hours care for child health outcomes (Fancourt, et al., 2010). Reduced cost has also has improved public satisfaction with the A&M service in Auckland, as reported in the survey and by GPs. This is consistent with the claim that access to services affects both consumer satisfaction, and health outcomes (Ensor & Cooper, 2004; Roberts, et al., 2004; Starfield, 1998).

Choice of Service

Nearly 12% of parents surveyed reported choosing an A&M solely based on the cost of the service. This is consistent with underlying rationale for the Auckland under-sixes subsidy (that parents respond to low price). Cost is a significant factor in why people choose services (Giesen, et al., 2006; O’Cathain, et al., 2008). However, it cannot be known whether this lowered cost meant parents chose a subsidised A&M instead of a non-subsidised one, or merely would not have gone to the A&M if it was not subsidised. Among parents surveyed at EDs, 7.1% chose to take their child to the ED as it was free, implying they did not know it was free at some A&Ms and suggesting that not all parents are aware of prices so that they can make an informed choice about which service to use.

Many of the parents surveyed chose the A&M they went to as it was familiar or they lived close to it. This is comparable to results of why patients (of older ages) choose to attend services as reported in other studies (Giesen, et al., 2006; O’Cathain, et al., 2008; Philips, et al., 2010).
Another interesting finding was that a large number of parents took their children to the ED because their normal GP had told them to come. However, this was not the case at A&Ms. This may be due to the lack of GP awareness about the affordability of A&Ms due to the AHI. However, it may also be because GPs were trying to avoid clawback of capitation occurring, and so did not refer to A&Ms. Given that clawback does not occur if a patient attends an ED, this may influence GPs’ advice to patients.

**Urgent or Routine Care**

In terms of whether parents used A&Ms for urgent or routine care, it seems that most chose the service for what they perceived as an urgent condition requiring prompt treatment (Department of Health, 2006b). Only a small proportion of parents would have waited until their GP was open the next day if the A&M was not open, and most would have taken their child to the ED. This was also seen in what GPs thought parents used A&M services for. However, GPs also noted that perhaps not all of these issues were actually urgent, and perhaps more education of the public was needed around this.

In conjunction with the service utilisation data described earlier, these findings suggest that there was a significant urgent care need that was not being met prior to the Auckland under-sixes subsidy. It also suggests that the fears that subsidised A&Ms would be used for routine care, as suggested by GPNZ (General Practice NZ, 2012) and other GPs (Tatham, 2011; Topham-Kindley, 2011) were not realised.

**Objective Two: Consequences for Access to, and Continuity of, Within-Hours General Practice Care**

**Access and Utilisation of Within-hours Services**

The purpose of investigating utilisation of within-hours services was to understand consequences of the initiative on other primary care services. It was expected that utilisation of within-hours general practices services would reduce if patients chose subsidised A&Ms over their medical home. This could affect continuity of care and health outcomes (General Practice NZ, 2012; Tatham, 2011; Topham-Kindley, 2011).

Conversely, this investigation has found that there was a very large increase (a 134.67% increase) between 2010 and 2012 in within-hours utilisation at Procare general practices, which make up nearly half of all general practices in Auckland. The GP interviews also found that, although GPs were worried about the effect of free after-hours care on the utilisation of their services, none had noticed any changes or investigated this issue.

At the 18 general practices where after-hours A&M utilisation had increased the most in Auckland between 2010 and 2012, their within-hours consults had also increased a similar level to that of all Procare patients, 127.84%. These are the general practices that would have been most likely to experience their patients using their within-hour services less, if substitution was occurring. However, the results suggest that this did not occur.
The increase in within-hours utilisation is much larger than would be expected, given that the population size for young children has remained relatively static in Auckland over the last seven years (Statistics New Zealand, 2013). The increase in within-hours utilisation far outstripped the increase in after-hours utilisation after the Auckland under-sixes subsidy began. Furthermore, no significant increase in within-hours consults was seen for all patients aged six and over.

This trend is thought to be the result of the concurrent focus on reducing the cost of within-hours visits, through the national ‘Zero Fees for Under 6s’ scheme mentioned in Chapter Two. This is an additional payment (under the capitation system) to general practices that commit to offering free consultations (within-hours) to all children aged under six years old (Ministry of Health, 2011c). In 2013, most Procare general practices took part in the ‘Zero Fees for Under 6s’ scheme. The trend could also be the result of prioritisation of appointments for children aged under six within-hours, so that parents do not take their children to an A&M and trigger clawback for the practice. This defensive practice was mentioned briefly in one of the GP interviews.

Yet, when parents were asked about access to within-hours appointments for their children, 10.4% noted that they had gone to the A&M that night as there was no appointment available with their GP, and 40% reported having done this in the past. This suggests that, even with GPs prioritising appointments in some practices, in general, there are still difficulties with accessing within-hours care for young children.

The GP interviews also suggested that within-hours utilisation may have increased due to other defensive practices to avoid clawback, such as extending general practice opening hours. This will improve access to within-hours services for children aged under six. However, some general practices have also adopted other methods to avoid clawback, which may not have such positive impacts on access. These will be discussed in the section on clawback of capitation funding.

**Continuity of Care**

A key argument raised by GPs regarding subsidised after-hours care for children aged under six was that it would reduce continuity of care (General Practice NZ, 2012; Tatham, 2011). It was argued that continuity of care is not developed if a child attends an A&M instead of a regular general practice (General Practice NZ, 2012). While this threat was acknowledged by the GPs interviewed, none had seen evidence of this occurring. Some noted that this is due to the nature of children’s illnesses when attending A&Ms. Mostly, urgent care is used for conditions that are common and do not affect ongoing continuity of care, which is consistent with the literature regarding urgent and routine primary care (Coleman, et al., 2001; Department of Health, 2006b; DHB Shared Services, 2013). Another GP explained that loss of continuity will always be an issue for primary care and is not unique to this situation. This idea is noted in current literature on continuity of care (Starfield, 1998).

However, one GP did note that continuity of medical information is affected when A&Ms do not send medical notes back. Current literature observes that information about past medical history is important to continuity,
as is a consistent approach to the condition, which may also be affected if a GP does not see the A&M’s clinical notes (Department of Health, 2006a; Starfield, 1998).

In general, it seems that parents were aware of the importance of continuity. A large proportion would have taken their child to the GP instead of the A&M if the GPs practice was open. Comments also reflected that parents preferred to take their child to the regular GP. This is consistent with the findings of the United Kingdom’s Department of Health (2006a).

**Objective Three: Consequences for Clawback of Capitation Funding**

**Clawback Levels**

A further concern raised about the Auckland under-sixes subsidy is the possible effect it may have on clawback of capitation funding. It was argued that patients using A&Ms instead of going to their regular general practice would result in a higher level of clawback for practices (Topham-Kindley, 2011). This would be particularly worrying for GPs if this financial loss was the result of patients receiving care that they could have provided within-hours (General Practice NZ, 2012).

A small number of general practices were focused on in order to investigate clawback occurring from visits per year to the subsidised A&Ms. While the small number are representative only of those most likely to be affected by clawback, the large significant increase in clawback (nearly 50%) seen following the initiative showed a significant impact on funding for these practices.

Given that this increase is similar to the after-hours utilisation data selection criteria for these practices, it can be estimated that the after-hours utilisation data used in this research is a good proxy for levels of all clawback due to after-hours visits in Auckland. Thus, clawback in Auckland from after-hours visits to the subsidised A&Ms has increased due to the Auckland under-sixes subsidy, as was feared by GPNZ (General Practice NZ, 2012).

Interestingly, this increase did not seem to be noticed by the MAGPG GPs interviewed, who did experience an increase in A&M clawback. GPs from both groups interviewed had not noticed an increase in clawback at their practice (although they did think it was likely to have occurred). This included GPs interviewed from the comparison group, who were likely to have seen no increase in after-hours clawback.

It is suggested that GPs have not noticed this increase as it has been mitigated by a decrease in within-hours clawback, i.e. clawback triggered by patients attending another within-hours provider (rather than an A&M). This was confirmed by Ministry of Health data showing almost no change in overall levels of clawback in Auckland over the last five years.

Despite these findings, the small number of GPs that were interviewed were all very worried about clawback. However, this level of worry could also be why GPs consented to be interviewed in the first place.
Reactions to Threat of Clawback

Given that overall clawback has not increased, and GPs report that they do not monitor clawback over time, the reactions of GPs to the Auckland under-sixes subsidy seem to be related more to the perceived threat rather than actual evidence. The reactions outlined in Chapter Six, such as disenrolment of patients, refusal to enrol, and sending letters to parents, were all in reaction to the possibility of clawback. These reactions are examples of cream-skimming and dumping discussed in the literature. It is argued that cream-skimming and dumping is promoted by capitation funding, as providers aim to only enrol patients who do not require high resource use (Ellis, 2006; Gosden, et al., 2000; Guinness & Wiseman, 2011; Matsaganis & Glennerster, 1994; Olsen, 2009). This is particularly the case when there are no FFS payments made to the provider on top of capitation, as is the case with consults for children under six at all of the practices the GPs interviewed own. These findings particularly relate to the idea of patient dumping, when providers ‘dump’ patients who incur high resource loss (Ellis, 2006).

The methods of GPs in response to the threat of clawback may reduce access to needed care for young children. In particular, the blanket refusal to enrol children aged under six and instead require them to pay casual user fees may significantly reduce access to needed primary care. This was even acknowledged by one GP. This finding is significant given that access to primary care was one of the underlying aims of the reform to the New Zealand primary care system in 2001 under the Primary Health Care Strategy (King, 2001). Given that part of this strategy was capitation-based funding, the system of clawback of capitation funding seems to be undermining this goal when combined with recent policy changes. The problem with this system was noted by most of the GPs interviewed, who argued that while these practices may be unethical, they are the result of the system. Most also noted that system needs to be improved in order to prevent these practices from continuing to occur.

Furthermore, not only do these methods employed by practices to reduce clawback reduce within-hours access, but they may also promote health inequalities. Patients who use A&Ms ‘inappropriately’ can be disenrolled. If services are being used inappropriately, these children may be from families who cannot afford to take time off work to take their children to the doctor within-hours, and are most likely to be unable to pay casual user charges for their children if they are disenrolled by their GP. This may result in reduced access to primary care, increased utilisation of ED services, or reduced health outcomes for these children, in particular.

These reactions to the threat of clawback were discovered in a small number of interviews, which may not be representative of all general practices in Auckland. However, given that these practices were uncovered in such a small sample, there may be a number of other providers also reacting to the threat of clawback in the same way.

It difficult to know whether this reaction to clawback is as a result of the Auckland under-sixes subsidy, or as a result of the national directive. It is also not known whether these practices were occurring prior to the
Auckland under-sixes subsidy beginning, since clawback has occurred since the implementation of the capitation-based funding system in 2001.

**Integration of Findings: Intended and Unintended Consequences**

Sanderson (2002) argued that policies will always have unintended and unanticipated consequences. Understanding these, and the success of the intended consequences, underlies the approach of this research. When taken together, the consequences of the Auckland under-sixes subsidy are both successful, and adverse to the aims of the intervention.

Firstly, it seems that the main intention of the Auckland under-sixes subsidy, increased affordability and access to A&M care, has been met.

One of the main findings of this research was the relationship between after-hours and within-hours care. It was argued that parents would substitute free after-hours care instead of regular general practice care (which is also free) as it would be more convenient, leading to increases in clawback. However, both services have seen significant increases in utilisation since the Auckland under-sixes subsidy began. This suggests that substituting is not occurring, and that clawback is not increasing due to use of after-hours care for routine (rather than urgent) health problems.

The research found no negative effect on continuity of within-hours care. GPNZ had previously argued that increases in after-hours access would reduce continuity of care (General Practice NZ, 2012). Yet most of the GPs interviewed did not notice this effect. This is despite the fact that, at their practices, utilisation of A&M care by children aged under six had increased very significantly. This finding is consistent with the literature regarding trade-offs between access and continuity. The United Kingdom Department of Health (2006a) notes that parents of young children place a higher value on continuity and thus tend to only prefer quick access for a minor or short-term issue. This concept can be inferred from parents’ survey responses.

One of the most significant findings of this research is the actions described by GPs to dissuade patients from using A&Ms or being enrolled at the GPs’ practices. Access to primary care for children is important to promoting child and lifelong health (Fancourt, et al., 2010; King, 2001; Public Health Advisory Committee, 2010). Without this access, children’s health outcomes could be negatively affected (Starfield, 1998). Already in New Zealand the health of young children is poor when compared internationally, and yet much of this could be prevented through good access to primary care (Fancourt, et al., 2010).

There have been adverse consequences such as patient dumping and cream-skimming in order to avoid enrolment by patients who may attract clawback. However, there have also been some positive consequences to access for young children, in that general practices have reported longer opening hours and could even be prioritising within-hours consults for children aged under six. Therefore, these adaptive practices to avoid clawback may have positive and negative impacts on within-hours access for children aged under six.
If prioritising access to within-hours care for young children is occurring, it may have significant unintended access consequences for patients aged six and over. If general practice appointments are given to young children, other groups may have difficulties getting an appointment. These groups may then use urgent care providers for routine primary care. This may firstly exacerbate capacity issues for A&Ms and EDs during busy periods. This is also not ideal from a clinical quality perspective. Secondly, as noted in Table Two, Chapter Two, children aged under six are not the only patient group that attract clawback. While clawback of capitation funding for other groups is not as high as for children aged under six, reducing within-hours access (possibly driving other groups to use after-hours services) may not have the desired effect on clawback as may be hoped by general practices.

The main consequences of the Auckland under-sixes subsidy described above are summarised in Figure 9.
Objective Four: Implications when Combined with Other Primary Care Policies

The fourth research objective of this thesis explores the implications of the Auckland under-sixes subsidy when combined with other primary care policies in New Zealand. These implications are summarised in Figure 10.
Figure 10: Implications of the Relationship between the Auckland Under-Sixes Subsidy and other Primary Care Policies
This diagram shows in yellow three main policies, which combine to make the unique policy context that has been discussed in this thesis. These policies are:

1. The capitation-based funding system, including the clawback provision;
2. The ‘Zero Fees for Under 6s’ scheme, which removes the FFS general practices have historically charged on top of capitation for consults, and

The consequences of the interplay of these three policies can be seen in blue in the diagram.

This diagram demonstrates that general practices may become increasingly unhappy with the current capitation-based system in conjunction with recent primary care policy changes. Dissatisfaction with the system was described by most of the GPs interviewed. Most general practices do not charge a co-payment for consults with children aged under six, as they have opted into the ‘Zero Fees for Under 6s’ scheme. Under this scheme, practices cannot charge any co-payment for young children (Ministry of Health, 2011c). Instead general practices rely on the funding from capitation, and co-payments from other patient groups. Thus the large increase in within-hours utilisation for this group has not attracted extra income for practices. In fact, practices have had to provide more consults within-hours for the same level of capitation.

At the same time, clawback due to after-hours consults has increased, possibly due to the Auckland under-sixes subsidy. While this increase seems to have been mitigated by decreases in within-hours clawback, it is not known if this will continue if after-hours utilisation continues to grow. If clawback increases, general practices may have to provide much more (more consults) with less (funding). This may make providing within-hours care for young children unsustainable. It may also cause general practices to increase co-payments for other patient groups.

Following on from this, the defensive methods (such as patient dumping and cream-skimming) used to avoid clawback may over time decrease access to within-hours care, particularly for some groups of young children. As described above, it may become increasingly unsustainable to provide within-hours care for young children. This may trigger wider use of defensive methods to avoid clawback. While within-hours utilisation was high at the selected Procare practices investigated in 2012, this may not continue.

Therefore, while access to after-hours care for young children has been improved from the Auckland under-sixes subsidy, this may have occurred at the expense of within-hours access for children with high health needs who use both after and within-hours care. This is a key unintended consequence of the subsidy, as it undermines the Primary Health Care Strategy and New Zealand’s primary care system.

Newhouse (1996) contends that primary care funding systems should use both capitation and fee-for-service. However, the ‘Zero Fees for Under 6s’ scheme removes any form of FFS from consults with children aged under six. While capitation is increased under this scheme, the increase is only around $100 per child under six, meaning that if a child attends an A&M more than three times providers have lost this funding top-up. This
may be why methods such as cream-skimming and dumping have occurred (Barros, 2006; Ellis, 2006; Newhouse, 1996).

Furthermore, Langenbrunner and Liu (2005) maintain that payment methods can fail (i.e. cause unintended consequences) due to reasons such as poor complementarity of design across different health services, and institutional impediments inherent in the health system. Both of these factors seem to play a significant role in undermining the success of the funding of primary care in New Zealand. They are seen in the interaction between the within-hours primary care system and the after-hours primary care system. Both of these systems have policies in place to improve access to care (either for young children or the population in general). However, the institutional impediments that are part of these systems, particularly the clawback function, undermine this. These impediments result in a structure that forces general practices to lose income for something that should be promoted (after-hours access for young children to A&M care), whilst also not allowing providers to gain this income back using FFS.

Thus, the interplay of the three policies listed earlier has resulted in a system that dilutes the aim of all three policies and affects access to primary care for children aged under six. This will continue until one of these factors is addressed (Langenbrunner & Liu, 2006).

Recommendations for Improvement

In order to reduce the negative consequences as a result of the Auckland under-sixes subsidy, the wider interplay of all three policies listed above should be changed in some way. If this occurs, access to primary care, both after-hours and within-hours, could improve. Thus, the main recommendations from this research aim to influence this relationship.

The first recommendation is to promote alternate ways to fund A&M care that do not incur a clawback per visit. The Guidance for District Health Boards: free after-hours care for children aged under six years document notes that provisions can be made for locally negotiated alternative arrangements (Ministry of Health, 2012c). One of the main issues with the clawback system is that GPs view individual patients as responsible for losing funding for their general practice. However, under the ‘back-to-back agreements’ many GPs sign up to with their PHO, GPs are responsible for providing 24-hour care under their PHO capitation funding (Dr Diane Scott Ltd V South Canterbury District Health Board, 2012). Hence paying for the A&M care is part of their funding responsibility. If alternative arrangements could be made, such as top-slicing capitation funding before it reaches general practices, individual patients would not be blamed for incurring loss. This would prevent methods such as cream-skimming and patient dumping, which reduce patients’ access to within-hours care.

This could be in the form of a percentage of capitation funding being paid to after-hours providers in lieu of clawback occurring. This thesis recommends that alternative arrangements be made for children aged under six in Auckland. This may prevent the reactions to clawback described in this section. It will also reduce
administration costs that are due to the large volumes of claims going from A&M to the Ministry of Health, who then claw back the funding and distribute it back to the A&M.

Alternatively, if this is not possible, a further recommendation would be to consider additional FFS funding for general practices providing services for children aged under six. This FFS should not be raised from patient copayments, as this could decrease affordability of within-hours services and go against the ‘Zero Fees for Under 6s’ scheme. Robinson (2006) raises the idea of blended forms of funding from the same funder. Similar ideas have also been raised in regards to the primary care funding system in New Zealand (Smith, 2009). Blended funding of primary care could be in the form of providers receiving a slightly lower capitation amount for children aged under six if they are signed up to the ‘Zero Fees for Under 6s’ scheme. Then, providers would also receive a small FFS for each unit of service provided to this age group. GPs are funded by DHBS through PHOs. This intervention could occur at either level of funding flow. While this could increase administration costs, even a small FFS changes the behaviour of providers and limits some of the disadvantages inherent with both FFS and capitation (Robinson, 2006). This change would also limit patient dumping. While it would not address the issue with clawback, it would stop the overall effect that occurs when clawback, the ‘Zero Fees for Under 6s’ scheme, and the A&M subsidy combine.

Thirdly, it is recommended that any changes put in place be developed in discussion with the different stakeholders involved. As described in Chapter Four, A&Ms in Auckland mostly remain separate from PHOs. This limits any incentive to systematically address the issue of clawback as a result of the Auckland under-sixes subsidy. The capitation-based funding system (and clawback) currently prevents integration between primary care providers, by providing a disincentive for GPs to work more closely with A&Ms. This extends to GPs being unwilling to refer patients to A&Ms or being unaware of the services A&Ms may offer. Providers of primary care, both within- and after-hours, would benefit from working together to come up with a mutually satisfactory solution, which promotes integration between services. This would also support both providers to meet their goals of improving access to primary care for young children.

A further recommendation would be the promotion of the findings of this research regarding actual clawback levels. While clawback due to after-hour visits may have increased at some general practices, overall clawback has not generally, possibly due to a reduction in within-hours clawback. Based on the perceived reactions of GPs to after-hours clawback, it may be advantageous to promote better understanding of this issue among GPs in Auckland. This may prevent such significant reactions by some GPs to what may not be an issue. It may also prompt GPs to investigate actual levels of clawback at their own practices, in order to see whether their perceptions match the reality of the situation. Promotion of these findings could be facilitated by PHOs and may also aid in better integration of primary care services. It may also promote better awareness of the AHI initiative among GPs.
Significance of Findings for the National Directive

As described in Chapter Four, policy evaluation and learning is important to understanding the intended and unintended consequences of a policy like the Auckland under-sixes subsidy. Using evidence from the examination of a policy can help to anticipate consequences of a similar policy and increase its chance of success (Howlett, et al., 2009: Sanderson, 2002). Understanding the Auckland experience is particularly important to anticipating the consequences of the national directive across New Zealand, given that no directive like this has been implemented before. Although the findings of this research will not influence the roll-out of the national directive, they may be used in order to promote policy learning and modification of this policy or others in light of evaluation learning (Sanderson, 2002).

The GP interviews described in Chapter Six probed into GPs’ views of the national policy. In general, it seems as though, while most of the small number of GPs interviewed are unhappy about the national policy, they would be fine with it if it did not result in clawback. All the GPs interviewed recognised that improving child health outcomes should be a national health priority.

Given the similarity between the Auckland under-sixes subsidy and the national directive, it is also useful to compare the findings of this research against the aims of the national policy, as set out in the Guidance for District Health Boards: free after-hours care for children aged under six years document (Ministry of Health, 2012c). This comparison can be seen in Table 9.

Table 9: Goals of the National Directive, in Relation to Research Findings

<table>
<thead>
<tr>
<th>Goals of National Policy</th>
<th>Auckland Experience</th>
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<tbody>
<tr>
<td>Help improve access to services through reducing financial barriers</td>
<td>This does seem to be occurring for after-hours services; however, not necessarily for within-hours services.</td>
</tr>
<tr>
<td>Address the national variability in fees for after-hours service provision for this age group</td>
<td>This was not specifically investigated in this research, although it is assumed that it will occur nationally.</td>
</tr>
<tr>
<td>Reduce the numbers of young children presenting to Emergency Departments</td>
<td>This was not investigated in this research. This is addressed in a forthcoming report from the BSMC Acute Care project.</td>
</tr>
<tr>
<td>Enhance child health outcomes</td>
<td>While it can be estimated this will occur due to increased access to primary care after hours, it is not known what effect the unintended consequences may have on health outcomes. Further investigation may be needed.</td>
</tr>
</tbody>
</table>
Possible National Consequences

These findings suggest that some of the goals of the national directive may be realised, particularly the goal of increased access to after-hours care for young children. However, based on the realistic evaluation idea that different policies work differently for different people and contexts, the increased access to after-hours care seen in Auckland may not occur elsewhere (Pawson & Tilley, 1997). Geographic location is important to understanding the context of a policy's consequences. As mentioned in Chapter Four, Auckland has a unique history and arrangement of after-hours care. It has many A&Ms all of which are relatively close together, and geographic access to these clinics may be better than to after-hours care services in other areas of New Zealand. Other regions may not have A&Ms, as many, or have A&Ms that are open 24 hours a day.

Additionally, other areas may also not have networks of PHOs, DHBs and after-hours providers (A&Ms) working together to implement the national policy (as occurred with the ARAHN and the Auckland under-sixes subsidy). Tenbensel, et al. (2013) found that the ARAHN was a key factor in the success of the AHI as it allowed for collective problem-solving, and provided a foundation for experimentation, monitoring, and feedback.

Although the increased utilisation of A&Ms due to lower cost may not be applicable nationally, the findings of this research do suggest that there may be significant unintended consequences of the national directive, such as patient dumping at some practices. This is likely to occur as practices like patient dumping are due to the relationship between the subsidy and the national primary care system. The consequences that have occurred in Auckland could then occur on a national scale. This thesis, therefore, extends the recommendations for improvement described above be considered at a national level.

Policy Learning

Although not all the findings of this research will be completely applicable to the national policy, in general many of the consequences will be, particularly those which are reflective of the interplay the subsidy has with the wider primary care system. These findings can be used for policy learning: the ‘intentional, progressive, cognitive consequences of the education that results from policy evaluation’ (Howlett, et al., 2009, p180). Sanderson (2002) and Howlett, et al. (2009) argue that this will slowly lead to a policy’s success.

Findings from this research can be used to provide recommendations to improve the Auckland under-sixes subsidy’s success (Howlett, et al., 2009; Sanderson, 2002). This ‘lesson drawing’ form of policy learning may, however, be limited in its use to the national policy due to the Auckland context described earlier (Howlett, et al., 2009; Rose, 1991).

A more applicable form of policy learning to the national policy may be social learning, where the wider effects of the policy and its underlying paradigms are understood and learnt from (Hall, 1993). In particular, this policy learning could lead to consideration of the underlying primary care system and the interplay between the systems to provide and fund after-hours and within-hours care. As argued by Langenbrunner and Liu (2006), until the wider institutional impediments of funding systems and the complementarity of design across services
are addressed, primary care funding systems will continue to fail. Policy learning does however rely on the capacity and willingness of organisations to absorb this information (Howlett, et al., 2009; Zarkin, 2008). Yet if social learning could occur, then it could help to address the wider issues inherent in the subsidisation of after-hours care for young children in New Zealand.

Strengths and Limitations of This Research

Strengths
One of the key strengths of this research is the mixed methods approach used. The five studies employed in this research have systematically covered many of the possible effects of the Auckland under-sixes subsidy on primary care providers (A&Ms and GPs). The number of studies used meant that triangulation of findings and expansion of the inquiry was promoted. For example, the quantitative data showed trends overall, and the survey and GP interviews allowed these trends to be understood and explored in more depth. The mixed methods allowed for generation of new insights into this complex issue, which would have not been possible without all of the different studies.

The mixed methods approach also allowed for development of a sample using another data source. The A&M utilisation data was used to select the MAGPG, which was used for sampling including the clawback data and GP interviews. This was useful as it allowed for a small selected sample to be followed through different data sources. This meant that it was feasible to investigate a number of different methods in the time-frame of this research. It also meant that the largest impact of the Auckland under-sixes subsidy could be estimated.

A further strength of this research is its focus on young children. This has limited the scope of a potentially large issue into a more manageable size. This has meant this issue has had a depth of inquiry that would not have been possible if this study had focused on all age groups. The emphasis on children reflects the focus on understanding ‘what works for whom, in what circumstances’ (Pawson, 2006).

Limitations
A key limitation to this study is the small number of interviews carried out with general practitioners. Five interviews is a very small sample, and more interviews may have increased the reliability of the data. This would have been particularly useful in ascertaining how widespread the use of the methods to avoid clawback, such as disenrollment, are in Auckland. As only five interviews were carried out, it is difficult to know whether this behaviour is representative of all general practices. Thus, the findings may not be generalisable. However, more interviews were not carried out due to the large amount of difficulty encountered in getting GPs to participate, and the feasibility of trying to recruit more in the time-frame of this thesis. Moreover, given that these methods were discovered in only a small sample, this may suggest that such practices are widespread.
Additionally, it would have been useful to ask GPs about when the methods aimed at reducing clawback began. Participants were not asked about this in the interviews, and it would have added further understanding into whether the methods such as disenrollment were in reaction to all clawback, or began after the Auckland under-sixes subsidy was announced.

A further limitation is the focus on comparing 2010 versus 2012 for a number of the quantitative datasets. The Auckland under-sixes subsidy was implemented in September 2011, so measuring in 2012 is very close to when the initiative began and is only one year. It may take some time for parents to respond to the lowered price at the participating A&Ms, or trends may change over the course of a number of years. This means the effect of the subsidy for utilisation (and effects on clawback) could be over- or under-estimated.

The analysis of the data provided by the Ministry of Health regarding visits that incur clawback, and the resulting clawback levels, is limited somewhat by the fact that it does not take into account the stop-loss function. This is where clawback is limited to up to four visits per child per month. This occurred because data was provided at a summary level, rather than an individual patient level.

This research aimed to understand the effect of the subsidisation of A&M care for young children on continuity of care. Not only was this was of the fears raised in relation to this study, but continuity of care is also particularly important for young children. However, there was limited information available on this issue. The survey data did add some information, as did the GP interviews. It would have been useful to have quantitative data to better understand if any effect was occurring, but this was not feasible given the time constraints of this research.

A further limitation to this study is also the mixed methods approach employed. While using different studies for triangulation is a strength, a focus on integrating results may mean that discrepancies in results between different studies may not be detected, as common themes between studies are focussed on instead.

**Future Research Directions**

The findings from this research have raised additional questions and ideas that warrant further exploration. Given the limited generalisability of the five GP interviews carried out, it would be advantageous to carry out more interviews with GPs. This would allow for a greater understanding of the methods employed to prevent clawback from occurring due to after-hours visits by children aged under six.

Further research investigating the large increase seen between 2010 and 2012 in within-hours consults for children aged under six may also be beneficial. It is not known why this occurred, although it is hypothesised that within-hours appointments could have been prioritised for children. If this prioritisation is occurring, it would be useful to find out how widespread this practice is. It would also be beneficial to investigate possible implications for patients aged six and over, particularly those who have high needs and are unable to get a within-hours appointment.
Additionally, further research could investigate other impacts of the Auckland under-sixes subsidy for children aged under six. This research has assumed that utilisation is a proxy for measuring access, but there are other measures of primary care, or the consequences of the Auckland under-sixes subsidy, that would be useful to investigate. This could include investigation of the effect of the subsidy on ED utilisation, avoidable hospitalisation, and morbidity among children aged under six. As discussed earlier, further examination of effects on continuity of care would also be valuable.

Conclusion
Subsidised after-hours A&M care for young children aims to improve health outcomes by increasing affordability and access to primary care. Such initiatives may however have a number of unintended consequences. This study investigated the impact of a subsidy for after-hours care for children aged under six years in Auckland. It considered the implications of the subsidy when combined with other primary care policies in New Zealand. The validity of concerns raised by GPs about the introduction of this subsidy was also explored.

A mixed methods research approach was used. The results show increased access to subsidised A&Ms, particularly in areas where the subsidy was largest or family income lowest. This suggests that the subsidy has decreased cost barriers and improved affordability for these families. Furthermore, parents seem to be using after-hours care for urgent rather than routine health issues. This indicates that the subsidy met a previously unmet need for affordable after-hours urgent primary care in Auckland.

The concerns raised by GPNZ and other GPs were considered. Central to these concerns was the fear that families would choose to take their sick children to after-hours care instead of their normal general practice within-hours, particularly if both services are free. This does not seem to have occurred. In fact within-hours utilisation has increased since the subsidy began. It was also argued that continuity of within-hours care would be reduced, yet there seems to have been no negative effect on continuity of care as a result of the Auckland under-sixes subsidy.

It was also predicted that clawback of capitation-based funding would increase as a result of the Auckland under-sixes subsidy. This study found that clawback from the subsidised A&Ms did increase, due to increased utilisation of A&M services. However this was mitigated by a reduction in clawback from within-hours visits. Overall clawback has remained stable in Auckland.

The study did find that some general practices are electing not to enrol, or de-enrol, patients aged under six. It is unclear whether this is occurring directly in relation to the Auckland under-sixes subsidy and concerns about potential clawback, or if has been occurring since capitation-based funding began.

Key to understanding the wider consequences of the Auckland under-sixes subsidy is New Zealand’s unique primary care funding environment. When viewed in isolation the subsidy is meeting its intended objective of
increasing access for young children. However when seen in conjunction with the capitation-based funding system, the clawback provision and the ‘Zero Fees for Under-6s’ scheme, there are a number of unintended consequences. Specifically, the current after-hours subsidy may over time increase barriers to within-hours care for both young children and other patients. These unintended barriers to within-hours care possibly include reduced affordability of care and lack of accommodation by a service in accepting enrolments for patients aged under six (Penchansky & Thomas, 1981). These access barriers may undermine the goals of the Primary Health Care Strategy (King, 2001). It is anticipated that the national directive will have similar consequences.

Positively, the Auckland under-sixes subsidy has, as intended, increased access to after-hours care for young children. However, the interaction of this policy with the current primary care funding system promotes a number of unintended consequences. This interaction needs to be addressed if New Zealand wants to achieve a genuinely accessible health system for all.
### Appendix 1: Current Capitation Rates as at January 2013

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Gender</th>
<th>FIRST CONTACT</th>
<th></th>
<th></th>
<th></th>
<th>SIA (NON HUHC)</th>
<th></th>
<th>HEALTH PROMOTION (NON HUHC)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>HUHC</td>
<td>Non HUHC</td>
<td>HUHC</td>
<td>Non HUHC</td>
<td>Maori/Pacific</td>
<td>Non Maori/Non</td>
<td>Maori/Pacific</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$581.3764</td>
<td>$388.9272</td>
<td>$581.3764</td>
<td>$379.5512</td>
<td>$98.6468</td>
<td>$73.9848</td>
<td>$244.0852</td>
</tr>
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<td>0 to 4</td>
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<td>$558.1207</td>
<td>$849.8617</td>
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<td>$145.6325</td>
<td>$525.7892</td>
</tr>
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<td>$558.1207</td>
<td>$849.8617</td>
<td>$558.1207</td>
<td>$183.7410</td>
<td>$145.6325</td>
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<td>$123.1080</td>
<td>$372.7652</td>
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</tr>
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<td>$203.1940</td>
<td>$50.6920</td>
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<td>$244.0852</td>
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</table>

Note: First Contact denotes capitation-based funding to deliver first level services to enrolled persons. Dep 9-10 denotes the most deprived quintile of the population using the NZ Deprivation Index (Ministry of Health, 2013b).
Appendix 2: Guidance to District Health Boards

March 2012

Guidance for District Health Boards

Free after-hours care for children aged under six years

Introduction

This guidance document has been developed to support district health boards (DHBs) in their planning for the implementation of free after-hours care for children aged under six years on 1 July 2012.

Individual DHBs have the best understanding of their local requirements and capacity and it is expected that, in partnership with their primary care providers, local sustainable solutions will be developed. This information aims to help clarify the intent of the policy and set principles and parameters to underpin local implementation.

Background

On 27 October 2011, the Minister of Health Hon Tony Ryall announced the introduction of free after-hours primary health care for children aged under six years on 1 July 2012.

The policy goal is to:

- help improve access to services through reducing financial barriers
- address the national variability in fees for after-hours service provision for this age group
- reduce the numbers of young children presenting to Emergency Departments with conditions that might be better treated by primary care providers
- enhance child health outcomes.

Underlying principles

The following principles and supporting statements have been developed following discussion with DHBs, General Practice New Zealand (GPNZ) and the wider sector. These are offered as guidance for the local introduction of this service:

i. Clinical continuity of care:
   - the use of a regular primary care provider should be promoted to maintain continuity of care and the ‘medical home’
   - after-hours services should be available for children with clinical conditions, the treatment of which cannot be safely deferred. Local public education and communication programmes should support this
• after-hours providers should provide a clinical record of the consultation to the child’s regular general practice as soon as possible, unless the parents object to this
• when telephone triage results in urgent referral to a hospital facility, the child’s regular general practice should be notified.

ii. The environment:
• flexible and extended opening hours offered by regular daytime general practices may help reduce utilisation of after-hours clinics by families with young children
• after-hours providers should act in ways that support the patient’s relationship with their ‘medical home’
• the introduction of free after-hours care for children under six years must not increase the cost for after-hours care for other age-groups.

National minimum requirements

1. All children aged under six years should be eligible for free after-hours primary health care services. This should include both enrolled patients and casual patients, regardless of their place of residence.

2. Free after-hours services must be available for most children under six years within 60 minutes travel time.

3. Coverage means the percentage of the total DHB domiciled population of children under six years, having access to free after-hours care. Each DHB should strive for as high a level of coverage as possible on 1 July 2012, with coverage increasing thereafter as quickly as possible.

4. After-hours is defined as meeting the needs of patients “that cannot be safely deferred until regular general practice services are next available”\(^1\). In general, after-hours means those hours between 6pm and 8am on weekdays and during the 24 hour period over weekends and public holidays. However local variations may be applied where these better meet local needs.

5. After-hours care means the provision of ‘face-to-face’ primary health care services in a practice or clinic setting. Telephone triage may be a component of after-hours services, but it is not a substitute for the availability of face-to-face consultations, or a prerequisite.

6. As provided for in the PHO Agreement\(^2\) a General Medical Services (GMS) claim may be made for the provision of free after-hours services for children under six years. Locally

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\(^1\) Towards Accessible, Effective and Resilient After Hours Primary Health Care Services; Report of the After Hours Primary Health Care Working Party. Ministry of Health, 2005

\(^2\) PHO Service Agreement Version 18
negotiated arrangements, such as a percentage of capitation funding being paid to after-hours providers in lieu of GMS claims, may also be applied.

7. Discussions with ACC are underway regarding accident related presentations. Advice will be provided as soon as possible regarding any changes to their current policy.

8. DHBs are expected to work with their local rural providers. Existing Primary Health Care Rural After Hours Funding agreements with rural general practices will not change at this time.

9. Engagement with local primary care and sector groups is essential. The development of local alliances and clinical partnerships is strongly encouraged.

Reporting

10. DHBs are required to:

- confirm in their Annual Plans that they have a minimum of 60 per cent service coverage for free after-hours care for children under six years as of 1 July 2012 and,
- report progress against increasing this service coverage to as close to 100 per cent as practicable, as quickly as possible. This recognises that some private providers may choose not to participate in this service.

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Appendix 3: Patient Survey

The University of Auckland
Facility for Medical Health Sciences

Code No. ______________________
A&M Clinic name ______________________
Date and time ______________________

Evaluating the Auckland After Hours Initiative: Accident & Medical Clinics (A&Ms)

Introduction and screening for interviewer.
Hi, my name is ____________ I have been hired by the University of Auckland as a research assistant for the After-Hours study. I'd like to talk to you about taking part in a confidential questionnaire people getting medical care after hours: at nights, weekends and public holidays. Information will be used to help improve services. Talking to me, or taking part, won't delay your medical care. You won't lose your place in the queue to see the doctor. The questionnaire won't ask any medical details, or any personal information that can identify you. Are you OK with talking to me about the study? [If person says NO then thank them and move on. [If YES, say]
Thank-you. Before I give you more information I need to check that you are eligible [Ask all eligibility criteria and tick YES. If respondent doesn't meet one of the criteria, stop interview, thank them for their time and move on to next patient.]

• First can you tell me who is the patient today, [when they respond ask] Would you mind telling me which age group you/the patient belongs to? [show the age groups] □ age refused
  □ 0-5  □ 6-17  □ 18-24  □ 25-34  □ 35-44
  □ 45-54  □ 55-64  □ 65-74  □ 75-84  □ 85+

• [If the patient is under 18 ask] Who is the parent/caregiver today? [When they respond, ask] Can you confirm that you are at least 18 and will answer the questionnaire if you decide to take part?
  □ Yes, caregiver ≥18

• Are you here today about an illness or condition that is NOT the result of an accident [If unsure clarify for eligibility. If answer is NO explain they are not eligible because the cost is covered by ACC]
  □ Yes, not ACC

• If you decide to take part, I’ll guide you through the questionnaire. [If the patient/caregiver appears to have limited English, ask] Is there someone here today who can help interpret?
  □ Yes interpreter

OK. Some important information to help you decide about taking part. There are 2 parts to the questionnaire. The first part (15 minutes) will be completed here while you are waiting to see the doctor. I’ll ask the questions and write down your answers. The second part will take 5 minutes and is for you to fill out after you have seen the doctor. You can fill it out here or take it away with you and post it back to us. Everyone who takes part can choose to go into the draw to win one of 6 grocery vouchers each worth $150. Just to confirm, if you do take part, or not, it won't affect your care in any way and any information you give us will not be able to be linked back to you. You can refuse to answer some questions or stop the interview at any time. Also, if you decide later that you don’t want to take part you can let us know and we’ll remove your information.

The next step is to give you an Information Sheet about the study and Consent form. Are you OK with this? [If NO, thank them and move on to next person. If YES hand them out and say] This information sheet is yours to keep and it tells you in more detail about what I've said. If you agree to take part you need to sign the Consent. You'll see it asks for some of your personal details but these can't be linked back to the questionnaire information. I'll leave you to read these and I'll come back shortly.

Participant questions and consent
Do you have any questions about participating or procedures? □ Yes □ No
[If yes, answer appropriately]

Do you agree to take part in the study [If NO thank them for their time, □ Yes □ No]
[If YES make sure consent form is filled out and signed]
<table>
<thead>
<tr>
<th>A&amp;M Clinic name</th>
<th>Code No.</th>
<th>Check Code written on Parts 1 &amp; 2 &amp; Information Sheet.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Session time</td>
<td>(24hr clock)</td>
</tr>
</tbody>
</table>

### Evaluating the Auckland After Hours Initiative: A&M Clinics

1. What transport did you use to get here today? *(if car, ask whose)*
   - [ ] Own car or family car
   - [ ] Someone else's car
   - [ ] Ambulance
   - [ ] Other transport (name) ____________________________

2. Are you aware of other places you could go to for medical help after hours? *(after 6pm weeknights, weekends, public holidays)*
   - [ ] Yes
   - [ ] No

   *(If YES, ask) Can you name these? [Match responses to list but don't prompt]*
   - [ ] Other A&M clinics [name/location] ____________________________
     - [ ] Subsidised A&M
     - [ ] Unsubsidised A&M
   - [ ] Family doctor/medical centre [not an A&M]
   - [ ] Hospital EDs [names/locations] ____________________________
   - [ ] Other places [name] ____________________________

3. Are you aware of any service you could telephone for medical advice after hours?
   - [ ] Yes
   - [ ] No

   *(If YES, ask) Can you name these? [Match all responses to list but don't prompt]*
   - [ ] Family doctor/medical centre office after-hours telephone service
   - [ ] Healthline
   - [ ] Other service [name] ____________________________
     - [ ] Plunketline
     - [ ] Poisonline
     - [ ] Can't remember names

4. Do you have a family doctor or medical centre that you usually go to when you are sick during the daytime?
   - [ ] Yes
   - [ ] No

5. Is this an Accident & Medical clinic *[explain what an A&M is]*?
   - [ ] Yes
   - [ ] No

6. These questions ask about health services you might have spoken to today about advice for where to get medical help after-hours.
   - *Today, did you speak with....... [ask for questions 6a to 6f]*

   6a. A family doctor or a medical centre?
      - [ ] Yes
      - [ ] No

   6b. A family doctor/medical centre after-hours telephone service? *(If YES, ask if they were given a number to call or were they transferred directly to the helpline?)*
      - [ ] Transferred
      - [ ] Given number to call
      - [ ] Not sure

   6c. Another type of helpline or 0800 number? *(If YES, name?)*
      - [ ] Yes
      - [ ] No

   6d. An A&M *(If YES, name?)* ____________________________
      - [ ] Yes
      - [ ] No

   6e. A hospital ED *(If YES, name?)* ____________________________
      - [ ] Yes
      - [ ] No

   6f. An ambulance service
      - [ ] Yes
      - [ ] No

   6g. Did you speak with another health service/professional today about where to get help after-hours? *(If YES, ask them to name these, and write verbatim).*

   __________________________________________

   *(Note to interviewer, if patients mention advice in the last few days/week about where they sought help prior to this after-hours visit, write this down here)*

   __________________________________________
7. If in Q6 patient has answered 'YES' or indicated contacting any health service today, name the services they told you they contacted, and ask..... Did this influence your decision to come to an Accident & Medical Clinic?
   - Yes
   - No
   - Not sure

8. Can you tell me all the reasons why you came to this A&M rather than going to the family Dr, or a hospital emergency department? [Match responses to list but don’t prompt initially.]
   - After reasons given, ask once, Were there any other reasons?
   - Write down answers verbatim if there is any uncertainty about matching to responses.
   - Usual family Dr/medical centre closed
   - No family Dr appointment available
   - Don’t have a usual Dr/medical centre
   - GP told me to come
   - Telephone helpline told me to come
   - Nurse told me to come
   - Specialist told me to come
   - Hospital ED told me to come
   - Ambulance told me to come/brought me
   - Family/friend told me to come
   - Been to this A&M before
   - This A&M closest
   - Other A&Ms closed
   - Condition deteriorated
   - Came after discharge from hospital
   - Wasn’t serious enough for ED
   - Good care in this A&M
   - This A&M costs less than other A&Ms
   - ED ancillary costs (parking, petrol)
   - Had to wait for someone to bring me
   - Wait time is too long in ED
   - Wait time too long in other A&Ms
   - Any other reasons describe here/verbatim responses

9. If this A&M wasn’t available today, what would you have done? [do not prompt]
   - Don’t know
   - Waited to see my family doctor/medical centre
   - Gone to a hospital ED [names/locations]
   - Gone to another A&M [name/location]
   - Wouldn’t have gone to a doctor

9a. Have you/the patient been to an A&M for after-hours medical care before?
   - Yes
   - No
   - Not sure/can’t remember
   [If YES ask] Was this............
   - In the last month
   - In the last year
   - More than a year
   - Not sure/can’t remember

9b. Have you/the patient ever been to a hospital ED for after-hours medical care?
   - Yes
   - No
   - Not sure/can’t remember
   [If YES ask] Was this............
   - In the last month
   - In the last year
   - More than a year
   - Not sure/can’t remember

10. If your usual family doctor was open now, would you have gone there instead of here today?
    - Yes
    - No
    - Not sure
    - This is my usual doctor
    - Don’t have a usual doctor

11. In the past year, have you gone to an A&M because your usual doctor said they had no appointments available that day?
    - Yes
    - No
    - Not sure/can’t remember
    - This is my usual doctor
    - Don’t have a usual doctor

12. Are you aware that some A&Ms are offering reduced fees for some groups of people? [If No to Q 12 go direct to Q 16]
    - Yes
    - No

13. [If YES to Q12 ask] Where did you hear about this?
    [Match responses to list but don’t prompt – if unsure, write response verbatim]
    - Telephone helpline
    - Hospital ED
    - At my usual doctor’s office
    - Radio
    - Television
    - Newspaper/magazine
    - Family/Friend
    - At this A&M
    - Another A&M
    - On the internet
    - Can’t remember
    - Another place
14 [If YES to Q12 ask] Can you tell me which groups of people are being offered reduced fees in some A&Ms? [do not prompt] □ Yes □ No
   □ Children aged under 6 □ Older adults aged 65+ (inc. gold cards)
   □ Community Services card CSC holder □ High User Health card HUHC holder
   □ People living in poor neighbourhoods □ Don’t know/can’t remember

15 [If YES to Q12 ask] Did being aware of reduced fees at some A&Ms affect your decision to come here today?  □ Yes □ No □ Don’t know

16 For all participants. Use the information in Q14 to inform all participants about who is eligible for A&M subsidy, then ask?
   Do you think you would qualify for reduced fees in A&M?
   □ Yes □ No □ Don’t know

Now for some questions about you. We assure you that we won’t be able to identify you/patient from this but your answers will inform our research. You can refuse to answer any question.

17a Do you currently have a Community Services Card? [show the card to the participant]  □ Yes □ No □ Don’t know
   [If refuse tick this box] □

17b Do you currently have a High User Health Card?  □ Yes □ No □ Don’t know
   HUHC [If refuse tick this box] □

If for Q17b patients don’t know what an HUHC is, or are unsure if they have one, tell them that patients may be eligible for this if they have an ongoing medical condition and see a family doctor at least 12 times a year, and recheck their answer.

18 Patient gender [don’t ask unless not obvious]  □ Male □ Female

19 What ethnic group do you/the patient belong to? You can give more than one. [Tick refuse, or all boxes that apply]
   □ Refused ethnicity □ NZ European/Pakeha □ Māori
   □ Samoan □ Cook Island Māori □ Tongan
   □ Niuean □ Chinese □ Indian
   □ Other ethnicity (describe)__________________________

20 One last question. One of the ways we can identify if you/the patient might qualify for reduced fees in some A&Ms is by matching your/the patient’s usual address to the area code in which you/the patient lives. This will be completely confidential. Are you OK with this?  □ Yes □ No
   [If NO go to wrap up, If YES, ask]
   a. If this is already on the Consent form use this to match address to area code.
   b. If not written on Consent form ask “Can you please write down your address on this piece of paper, and then I’ll give it back for you to keep?”

   [Interviewer: Use hard or electronic copy of streetlink book to identify meshblock and NZDep and write these down]

   Meshblock ____________________________ NZDep

Thank you very much for your time and patience. Just before we finish, here is the second part of the survey for you to complete. You can complete this after you have seen the doctor and put it in the box here. Or you can take it away with you and send it back to us in the envelope provided.
[Show participants where the box is - A&M might have 2: 1 in clinic, 1 in pharmacy]

Completing both parts of the survey is important as the 2nd part tells us about how happy you are with the service and how it can be improved. If you entered the draw for the grocery voucher we will be contacting the winners in August.

[Reminder to interviewer: Last approach participants about interest in focus group information and hand out packs to those who are interested. Fill in details on Consent form]
Evaluating Auckland After Hours Initiative: Accident & Medical Clinics A&Ms

Introduction: Thank you very much for answering Part 1 of the confidential questionnaire about the types of medical services people like you use for after-hours medical care and the costs.

Please now complete Part 2 about how happy you were with getting the after-hours care you needed. Your answers will be completely anonymous. This form should be completed by the same person who answered Part 1.

If you have any questions about this research you should contact any of the researchers listed on the Information Sheet. If you have misplaced this you should contact:

Dr Tim Tenbensel: telephone 373.7999 extn 89001 email t.tenbensel@auburn.ac.nz

When you came to the Accident & Medical Clinic.....

1. How long was it before you saw any staff member?  
   - [ ] 5 minutes  [ ] 15 minutes or less  [ ] 30 minutes  [ ] 45 minutes  [ ] 1 hour  
   - [ ] 2 hours  [ ] Not sure of how long

2. How long was it before you saw a nurse? Please tick the box that matches best  
   - [ ] 15 minutes or less  [ ] 30 minutes  [ ] 45 minutes  [ ] 1 hour  [ ] 2 hours  [ ] 3 hours  
   - [ ] Not sure of how long  Did not see a nurse

3. How long was it before you saw a doctor? Please tick the box that matches best  
   - [ ] 15 minutes or less  [ ] 30 minutes  [ ] 45 minutes  [ ] 1 hour  [ ] 2 hours  [ ] 3 hours  
   - [ ] 4 hours  [ ] 5 hours  [ ] 6 hours or more  [ ] Not sure of how long  
   - [ ] Did not see a doctor

4. How much did you pay at the Accident & Medical Clinic? (don't include the costs of any prescriptions) Please tick the box that matches best  
   - [ ] No charge - free  [ ] Less than $20  [ ] $20 to $40  [ ] $41 to $60  
   - [ ] More than $60  [ ] Not sure  [ ] Don't want to answer

When you came to the Accident & Medical Clinic, how happy were you with ....

[ ] Very unhappy  [ ] Unhappy  [ ] Neutral  [ ] Happy  [ ] Very Happy

5. The time you had to wait to see a nurse?  
   [ ]  

6. The time you had to wait to see a doctor?  
   [ ]  

7. The explanation that you were given about your problem?  
   [ ]
When you came to the Accident & Medical Clinic, how happy were you with ....

8  The treatment or advice you were given?  

9  The cost of the visit?  

10 Overall how satisfied were you with this service?  

11 Did you contact a telephone helpline for advice before you came to the Accident & Medical Clinic?  
   Yes  No  Not sure

   This includes a family doctor or medical centre after-hours telephone service or any type of telephone helpline.

   If you ticked YES to Q11, please answer questions 12 to 15

When you used the telephone helpline for advice, how happy were you with...

12 Getting through on the phone?  

13 The way your phone call was handled?  

14 The advice you were given?  

15 Overall how satisfied were you with the service you received?  

Thank-you very much for completing this form.
•  If you completed it today after you had seen the doctor please put in the the box in the clinic
•  If you completed this at home, please send it to us in the envelope we provided

We will notify the winners of the grocery draw in August

YOUR PARTICIPATION IN IS THIS SURVEY IS VERY MUCH APPRECIATED
Appendix 4: Recruitment Email to Selected Practices

Invitation to Participate in Research

I am a researcher based at the School of Population Health, University of Auckland. I am currently conducting research into the implications of recent after-hours care initiatives on general practices in Auckland. This is funded by the Health Research Council of New Zealand.

I would like to invite a GP who is a part-owner of your practice to participate in a phone interview. It will take 15-20 minutes. I am particularly interested in the effect a subsidy for children aged under six to access after-hours care may have had on your practice, including on clawback of your capitation funding, given that a policy directive has now been issued for the rest of NZ.

I would appreciate if you could email me with one or two email addresses of suitable GPs working in your practice who may be interested in participating, or pass this email on to them and ask them to contact me directly. I will then get in touch with more information.

Please do not hesitate to get in contact with me with any questions.

I look forward to hearing from you.

Kind regards,

Kate Dowson

k.dowson@auckland.ac.nz

Health Systems Section
School of Population Health
University of Auckland
Te Whare Wānanga o Tāmaki Makaurau
Ph: 373 7599 ext 84937
Appendix 5: GP Participant Information Sheet

Information Sheet:  Key Informant Interviews (GPs)
Study Title:  Evaluating the Auckland After Hours Initiative

You are invited to take part in an evaluation study. This study is funded by the Auckland Region After Hours Network (ARAHHN), led by the University of Auckland and supported by researchers from Synergy Limited. The evaluation explores awareness, implementation and impact of recent policy initiatives that aim to increase access to after-hours community-based primary care, especially for high needs underserviced groups.

Participant selection and role: Participants will be selected from GPs affiliated with PHCs or primary care practices in the greater Auckland region. Approximately 10-15 GPs will take part in an individual telephone interview. This will take approximately 15-20 minutes of your time. Your name was provided to us by your local PHO or another primary care provider.

Your choice and your rights: Participation in this study is your choice. If you do agree to take part you are free to withdraw from the study at any time. You do not have to answer all questions and you may pause or stop the interview at any time. All interviews will be audio-recorded and then transcribed. You will be provided with a copy of your interview transcript. If you feel that your views have not been recorded accurately, you should contact the researchers below. A revised transcript will be sent to you. You may withdraw any data you have provided up to two weeks from receiving an agreed transcript by contacting the researchers.

Protecting your anonymity and confidentiality: To protect participants’ identity, all data that you provide will be anonymised and given a unique code. Anonymised quotations will be used sparingly in reports. Before publication, you will have the opportunity to review sections of reports containing information provided by you so that can see how these comments have been used and attributed. All study material will be stored on password protected computer databases, or in locked cabinets at the University of Auckland. Consent forms will be stored separately from other material. The only people with access to this material will be the evaluation research team. All material, including audio-recordings, will be destroyed after six years.

Benefits of participation and sharing study findings: Findings from this study can be used to review effectiveness of policies designed to increase access to community-based after-hours care, especially for high needs groups. Findings will be disseminated to interested parties and may be published within peer-reviewed academic journals.

Who to contact if you have concerns about participating: For any queries regarding ethical concerns you may contact the Chair, University of Auckland Human Ethics Committee, The University of Auckland, Office of the Vice Chancellor, Private Bag 92019, Auckland 1142, telephone 373.7599 extn 83711. Please contact the study lead investigator, Dr Tim Tenbenschel, or Kate Dowson if you have any questions about this study.

<table>
<thead>
<tr>
<th>Researcher name</th>
<th>University of Auckland</th>
<th>Telephone number</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Tim Tenbenschel</td>
<td>School of Population Health</td>
<td>373.7599 extn 89001</td>
<td><a href="mailto:t.tenbenschel@auckland.ac.nz">t.tenbenschel@auckland.ac.nz</a></td>
</tr>
<tr>
<td>Dr Lisa Walton</td>
<td>School of Population Health</td>
<td>373.7599 extn 89670</td>
<td><a href="mailto:lwalton@auckland.ac.nz">lwalton@auckland.ac.nz</a></td>
</tr>
<tr>
<td>Kate Dowson</td>
<td>School of Population Health</td>
<td>373.7599 extn 84937</td>
<td><a href="mailto:k.dowson@auckland.ac.nz">k.dowson@auckland.ac.nz</a></td>
</tr>
</tbody>
</table>

Approved by the University of Auckland Human Participants Committee on 12 November 2012 and variation on 21 June 2013 for 3 years, Reference Number 8729
Appendix 6: GP Consent Form

Consent Form: Key Informant Interviews (GPs)
Study Title: Evaluating the Auckland After Hours Initiative

GP Participant Consent: This form will be held for six years

1. I have read the Participant Information Sheet. I have understood the nature of the research and why I have been selected for a telephone interview. I have had the opportunity to ask questions about the study and my participation and have had them answered to my satisfaction. I understand that taking part is my choice and that I can withdraw from the study at any time without giving a reason.

2. I agree to being recorded.

3. I understand that even if I agree to being recorded, I do not have to answer all questions, and I may choose to have the recorder turned off at any time.

4. I understand that I will receive a copy of the transcript of my interview. I will have the opportunity to review my comments and understand that I may remove or amend any or all of these comments. I will have two weeks to edit or withdraw information after receiving an agreed transcript.

5. I understand that a third party who has signed a confidentiality agreement will transcribe the audio-recorded interviews.

6. I understand that all study material will be stored on password protected computer databases, or in locked cabinets at the University of Auckland. Consent forms will be stored separately from other material. The only people with access to this material will be the evaluation research team. All material, including audio-recordings, will be destroyed after six years.

7. I consent to information provided by me appearing in reports of this study. I understand that to protect my identity, all data that I provide will be anonymised and given a unique code. I understand that anonymised quotations will be used sparingly in reports of this study. I will have the opportunity to review sections of reports containing this data before publication.

8. I understand that the data provided will not be used for any other purpose or shared with others without my written consent.

9. I agree to take part in this study.

Name ___________________________ [Please print]

Signature ________________________ Date ___________________

THANK-YOU VERY MUCH FOR COMPLETING THIS FORM

Approved by the University of Auckland Human Participants Committee on 12 November 2012 and variation on 21 June 2013 for 3 years, Reference Number 8729
Appendix 7: Letter from Practice to Patients Using A&Ms for Non-Urgent Care

Dear Patient X,

We note that you have visited another Doctor recently. This information is provided to us by the Ministry of Health as a fee is deducted from our funding each time one of our registered patients attends another Doctor. This can have an adverse effect on our funding if too many patients visit elsewhere too frequently.

Part of the contract between us as Doctor and patient is that we will provide our services at a reduced fee in return for you visiting us for all of your medical care, except for urgent problems out of hours. Quite apart from any funding issues, it is also preferable for the sake of continuity of care to be seen by the same Doctor if at all possible.

Before you do visit another Doctor, we would ask you to consider whether that visit is truly urgent or could possibly wait until the next available appointment at our clinic. If you are unsure and want some advice you can call our clinic any time 24/7 and speak either to one of our nurses, or to a nurse at our after-hours service.

If you do ever need to visit another Doctor it is preferable to then return to us for any follow-up that may be needed. Just to remind you, we are open 8am to 7pm Monday to Friday, and also Saturdays 9am - 1pm.

Yours sincerely,

Practice Name


