



Performance audit report

District health boards: Availability and accessibility of after-hours services





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District health boards: Availability and accessibility of after-hours services

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report about a performance audit
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Auditor-General's overview

Sometimes, an injury or worsening medical condition occurs when our general practitioner's practice is closed. If we, as patients or caregivers, are concerned that the injury or illness cannot wait until our general practitioner (GP) is next available, we need to be able to get to an after-hours primary health care service (after-hours service) regardless of where we live.

The public perspective, particularly from the viewpoint of being service users, is an important consideration and we have, therefore, structured this report around it.

Ensuring that after-hours services are available

The Government has set an expectation that district health boards (DHBs) should ensure that after-hours services are available for 95% of the population in each DHB district within 60 minutes' travel time.

My staff carried out a performance audit to see whether DHB plans (including DHB funding proposals and other documents) met this expectation for geographic availability of after-hours services. To our knowledge, testing whether this expectation has been met has not previously been performed in a comprehensive and systematic manner for all DHBs.

I am pleased to report that all DHBs met the expectation – our audit showed that they had planned for after-hours services to be available as required by government policy. This is pleasing given the challenges of making health care services available in a country such as ours with a small population, and a widely dispersed rural population in particular.

The modelling my staff used showed that, in a typical week and at the time of our audit fieldwork in mid-2009, DHBs had planned for after-hours services to always be available to 99.7% of New Zealand's population within 60 minutes' drive. A small number of people, about 7300, only sometimes had an after-hours services available within 60 minutes' drive. A further 6400 people never had these services available within 60 minutes' drive. These people were generally in rural areas.

We have included a map for each DHB showing the geographic availability of after-hours services in a typical week (see Part 8). The information was accurate at the time that my staff carried out their fieldwork, but might have changed since then.

The modelling my staff used was a new audit technique for my Office. It is an approach that we may use in any future work that involves examining the public's geographic access to publicly funded services.

Are after-hours services accessible?

In practice, a DHB's planning for geographic availability needs to take into account the public's ability to access after-hours services. Accessibility is determined by a range of factors. Before people can get to an after-hours service, they need to know the answers to some important questions:

- Do I need an after-hours service? (see Part 2);
- What after-hours services are available? (see Part 3);
- Can I afford it? (see Part 4);
- Can I get there? (see Part 5); and
- Will I need to go somewhere else as well? (see Part 6).

Delays in getting advice and treatment can be distressing, detrimental to our health, and costly for the public health care system. It is therefore not surprising that, in addition to an expectation about geographic availability, the Government also has expectations about how DHBs will work to ensure that public health care services – including after-hours services – are accessible, which includes being affordable.

My staff noted that, despite a level of geographic availability that met the Government's expectation, most DHBs had not clearly identified and responded to transport and affordability barriers.

My staff also noted that some after-hours services are facing workforce and financial sustainability challenges. If these trends continue, there is a risk that the availability of after-hours services for some areas may reduce.

What do district health boards need to do?

Overall, DHBs need to improve their planning for accessible after-hours services. Specifically, they should do more work to identify affordability and transport barriers, and to consider patient access to pharmacy services.

DHBs have largely been responding to the after-hours challenges of today. This may not be enough to sustain after-hours service coverage in the future. In my view, DHBs need to design their service networks to ensure more sustainable after-hours services. For some, this may mean comprehensively redesigning their existing after-hours service networks.

Delivering services through networks involving public and private providers

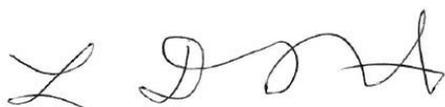
Although DHBs have significant influence over after-hours services arrangements in their districts, these arrangements are complex. They involve a range of publicly and privately funded organisations, not totally within a DHB's control, and not all within my audit mandate. The complexity of the arrangements means that planning for and changing the after-hours service arrangements for a given area is not straightforward.

The complexity of planning, funding, and delivering after-hours services is further reflected in numerous reports and ongoing debate in the health sector about aspects of these services. However, public entities should not be deterred from using their influence to make sure the complex arrangements deliver a positive experience and outcome for the users of after-hours services.

I am aware that a number of concerns have been expressed about the quality and effectiveness of after-hours services. My staff did not examine these as part of this audit. I encourage DHBs to further consider these issues as part of their response to this report.

Acknowledgements

I thank the many people working in the after-hours system for the help they have provided to my auditors. I would also like to thank the staff of the DHBs and sector organisations who participated in this audit for their co-operation and assistance.



Lyn Provost
Controller and Auditor-General

27 August 2010

Our recommendations

We recommend that district health boards:

1. better identify, consider, and respond to affordability barriers when planning, funding, and providing after-hours services;
2. where it is within their influence, better identify, consider, and respond to access barriers other than affordability – such as transport barriers – when planning, funding, and providing after-hours services; and
3. comprehensively review and, where necessary, redesign their after-hours service networks to ensure that those networks will be more sustainable in the future (for those district health boards not already doing so).

Part 1

Introduction

- 1.1 In this Part, we discuss:
- the purpose of our audit;
 - what we looked at;
 - our expectations of the district health boards (DHBs);
 - why after-hours primary health care services (after-hours services) are important;
 - how we identified after-hours services; and
 - the providers of after-hours services.

The purpose of our audit

- 1.2 We carried out a performance audit of DHBs' plans for after-hours services, which are funded from the significant public resources allocated to primary healthcare services. We did so to provide Parliament with assurance that DHBs were effectively meeting government expectations about the availability and accessibility of after-hours services and, if necessary, to recommend improvements.
- 1.3 By "primary health care services", we mean the sort of services people might expect to receive from a doctor (a medical practitioner), usually a general practitioner (GP). Defining "after hours" is more complicated, because times that might be considered "after hours" in some centres are "extended opening hours" in other suburbs, towns, or cities (see paragraphs 1.18-1.22).

The Government's expectations for after-hours services

- 1.4 The Minister of Health sets out what the country's DHBs¹ have to deliver each year through a service coverage schedule and an operational policy framework document. There is a very specific government expectation in the service coverage schedule about the geographic availability of after-hours services – DHBs are expected to ensure that after-hours services are available within 60 minutes' travel time for 95% of a DHB's population.
- 1.5 We acknowledge that, although DHBs have significant responsibilities and influence over the after-hours service arrangements within their districts, aspects of these arrangements are outside of DHBs' control. This is because a complex mix of publicly and privately funded organisations, including primary health organisations (PHOs), GPs, and accident and medical centres, are also involved in planning and delivering these services.

¹ During the course of our work, the Otago and Southland DHBs were amalgamated. There are now 20 rather than 21 DHBs. However, at the time of our audit fieldwork, the planning documents for these DHBs were separate. We therefore treat Otago DHB and Southland DHB as separate entities.

- 1.6 The *2006/07 Operational Policy Framework* required each DHB to prepare a strategic plan for after-hours services in their district, in collaboration with PHOs.² Subsequent operational policy frameworks required DHBs to identify how they will work with PHOs to ensure that primary health care services – including services delivered after hours – are accessible, affordable, and within the geographic reach of their populations. In 2008/09, the Ministry of Health (the Ministry) required DHBs to submit proposals outlining how they would make after-hours services more accessible, to receive a share of additional funding.

What we looked at

- 1.7 We determined whether DHBs had planned for an after-hours service to be available to at least 95% of their population within 60 minutes' drive during a typical week. Our audit looked at DHB plans and then tested those plans by modelling and analysing the availability of after-hours services. We relied on DHBs to verify what services they had available in their districts. We did not audit the actual after-hours services. Generally, we also refer to 60 minutes' "drive" instead of 60 minutes' "travel time" because, although the Government's expectation refers to travel time, it is reasonable to assume that such travel will be on the road network.
- 1.8 We also looked at the extent to which DHBs had identified any potential barriers, such as transport and affordability, for people who need to access after-hours services.
- 1.9 Specifically, we:
- obtained, reviewed, and analysed information from DHBs' strategic plans for after-hours services, funding proposals specific to after-hours services, and other documents to determine what after-hours services were expected to be in place in 2009/10 (we refer to these collectively as DHBs' "after-hours plans");
 - found out where all the after-hours service providers were located, and had the DHBs verify that information;
 - analysed information on the locations of after-hours service providers, average travel speeds across the road network, population and vehicle ownership data from the 2006 Census, roster information for relevant after-hours service providers, emergency department use, numbers of visitors in holiday periods for selected towns, and the medical workforce;
 - collated information from DHBs' after-hours plans about affordability and transport barriers, and any proposed actions within the plans to help remove or reduce those barriers; and
 - met with the Ministry, several different after-hours providers, and spoke with or surveyed a range of interested parties.

2 Ministry of Health (2006), *2006/07 Operational Policy Framework*, Ministry of Health, Wellington, page 120.

- 1.10 Appendix 1 sets out further information about our audit methodology. Appendix 2 sets out brief information about the funding arrangements for after-hours services.

What we did not look at

- 1.11 We did not audit:
- the quality of the DHBs' planning processes and their monitoring of after-hours services;
 - whether the after-hours services were the most appropriate or effective services possible;
 - whether the Government's funding arrangements for after-hours services were adequate or appropriate;
 - DHB planning for emergency services;
 - the Ministry's role in after-hours services;
 - the appropriateness of the expectation that 95% of a DHB's population have after-hours services available within 60 minutes' drive;
 - whether the after-hours services that DHBs had identified in their plans were actually available and accessible; and
 - the performance of non-public entities involved in after-hours service delivery.

Our expectations of the district health boards

- 1.12 In keeping with the relevant service coverage schedule and the operational policy framework (see paragraph 1.4), we expected DHBs to have planned for after-hours services to be available within 60 minutes' drive for 95% of a DHB's population. In keeping with the service coverage schedule requirements for when a nurse delivers those services, medical back-up (such as a GP) needs to be available, so (where applicable) we expected these arrangements to be in place.
- 1.13 We also expected that, in leading the planning for after-hours services,³ DHBs would collect and analyse information to determine whether there were any affordability or transport barriers that would prevent people from accessing after-hours services.

³ Many of the providers of after-hours services are private businesses. DHBs cannot control or direct where or how those businesses operate, but they are required to work with PHOs and take a lead role in planning for after-hours services.

Why after-hours services are important

- 1.14 Without timely access to primary health care, some medical conditions can escalate to the point that more acute forms of care are required.⁴ The sick or injured person might then require hospital emergency treatment and/or be admitted to hospital.
- 1.15 Emergency care and hospital admissions are costly to the health sector. Patients can also become more distressed and the outcomes can be worse than if a patient had received care sooner. Having after-hours primary health care services available also provides the public with assurance that help is available when they need it.

Emergency services and after-hours services

- 1.16 At times, people go to hospital emergency departments even though there are after-hours services, such as general practices, available. At other times, a DHB hospital emergency department may be the only service available to provide after-hours services. Some DHB after-hours plans explicitly included hospital emergency departments as part of their planned after-hours services, especially to provide services when no other after-hours services were available.
- 1.17 There is much debate about the relationship between access to primary health care, attendance at hospital emergency departments, and emergency department overcrowding. We have not examined this relationship as part of our audit, but we understand that a lack of access to after-hours services can result in additional pressures elsewhere in the health sector.⁵

4 Conditions that can get much worse if not treated quickly can include asthma, gastroenteritis, diabetes, respiratory infections, and skin infections.

5 Working Group for Achieving Quality in Emergency Departments (2009), *Recommendations to Improve Quality and the Measurement of Quality in New Zealand Emergency Departments*, Ministry of Health, Wellington.

How we identified after-hours services

- 1.18 There is no clear and nationally accepted definition of an after-hours service. Many, but not all, DHBs have adopted a definition used by the After Hours Primary Health Care Working Party:⁶
- 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 next available.⁷*
- 1.19 In this definition, an after-hours service is a service that is usually provided by a general practice and is needed when “regular” services are not available. However, providers of after-hours services have different operating hours, and different periods that they consider to be either extended opening hours or an after-hours service.
- 1.20 In the DHBs’ after-hours plans, we were not always able to clearly distinguish between extended-hours services and after-hours services.
- 1.21 Because definitions – and particularly related time periods – vary, for the purposes of this audit we have defined after-hours services as being:
- services for urgent or acute needs, and services that one might expect to receive from a GP (or from a nurse who has appropriate medical back-up available to them);
 - services available at times when a patient might expect reduced access to their GP, such as when local businesses tend to be closed; and
 - those services contained in DHBs’ after-hours plans.
- 1.22 In this report, we use the term “daytime” services to refer to “regular” primary health care services (that is, the opposite of after-hours services). We acknowledge that some after-hours services would, however, be provided during daytime hours (for example, at weekends).

Providers of after-hours services

- 1.23 In larger centres, a range of primary health care providers typically provide after-hours services. The range can include general practices and accident and medical centres. Hospital emergency departments either provide back-up or, in some instances, are the sole provider of after-hours services overnight (see paragraph 1.16).

6 In 2004, the Government set up a working party to look at the provision of after-hours primary health care. The report of the After Hours Primary Health Care Working Party, *Towards Accessible, Effective and Resilient After Hours Primary Health Care Services: Report of the After Hours Primary Health Care Working Party*, was published in July 2005. It “made fifteen recommendations aimed at ensuring accessible and effective after hours primary health care services and strengthening their resilience” (see www.moh.govt.nz).

7 After Hours Primary Health Care Working Party (July 2005), *Towards Accessible, Effective and Resilient After Hours Primary Health Care Services: Report of the After Hours Primary Health Care Working Party*, Ministry of Health, Wellington, section 2.2, page 2.

- 1.24 In smaller centres, a range of general practices typically provide after-hours services, often until 8pm. After 8pm, people are usually expected to access overnight services in the nearest urban centre. Hospital emergency departments usually provide back-up, but in some towns the emergency department is the only after-hours service available.
- 1.25 In rural areas, a range of general practices typically provide after-hours services. Either a person's own GP, or a GP or rural nurse on a roster for that area, will provide the care that is needed. In remote rural areas, rural nurses might be the only providers of after-hours services.

Telephone advice services

- 1.26 There is a toll-free national Healthline telephone service (0800 611 116) that operates 24 hours a day, seven days a week. Healthline is staffed by registered nurses with telenursing training, who are expected to provide:
- an assessment of health problems, advice on the most appropriate level of treatment, and a recommended time frame for receiving that treatment;
 - advice on self-care and symptom management;
 - advice on preventing illnesses;
 - health information (for example, information about diseases);
 - information about the availability and location of health care services; and
 - immediate transfer of the call to emergency services.
- 1.27 Healthline is delivered by a contracted service provider and funded by the Ministry. It uses a computerised decision support system and has an electronic health topic library for general health information. In the 12 months to 31 March 2010, Healthline received 360,161 calls.
- 1.28 Some general practices also use the services of a private telephone advice service after hours. These practices can divert their telephones to this service. When a patient phones the practice number, the telephone service will answer the telephone in the name of the practice and provide information that is tailored to the caller's local services and situation.

Other services

- 1.29 Other services, such as pharmacies, diagnostic facilities, and ambulance services, may also be available after hours.

Part 2

Deciding whether an after-hours service is required

- 2.1 In this Part, we discuss how patients and/or their caregivers:
- decide how urgently they need advice and/or treatment for an injury or medical condition; and
 - know where to go for that advice or treatment.
- 2.2 A person with an injury or medical condition needs to consider whether their need for health care is urgent or can wait. When a person underestimates their health need and waits too long before seeking advice and treatment, their injury or medical condition may worsen. The consequences can include death, longer recovery time, or greater financial costs to the person and the health sector. A DHB can also incur higher costs when a person overestimates their health need and unnecessarily seeks hospital treatment.

Summary of our findings

- 2.3 People may decide by themselves how urgently they need treatment and/or advice or they may decide in conjunction with a GP or nurse. People may seek advice on how urgently they need treatment or further advice by phoning a telephone advice service and/or by visiting an after-hours service. Telephone advice services may also provide information on what after-hours services are available in a given area at a given time. The after-hours service arrangements in some areas are complicated.

Deciding on the urgency for treatment or advice

Deciding on the urgency of the need for treatment and/or advice may be done directly by people themselves or in conjunction with a GP or nurse.

- 2.4 The first matter that a person has to consider before travelling to an after-hours service is whether the injury or medical condition can wait or requires more urgent care. They have to decide what level of care or advice they need – telephone advice, an emergency response, a GP as soon as possible, or a GP when the GP is next available. They then have to find out where to go for this level of care or advice.
- 2.5 Most after-hours services are provided by GPs or nurses. The *2009/10 Service Coverage Schedule* (page 15) states that: “First-line assessment and treatment of problems” is “normally nurse/doctor GP services”. Generally in this report, we refer to the health professionals and health practitioners who provide after-hours services as GPs or nurses.

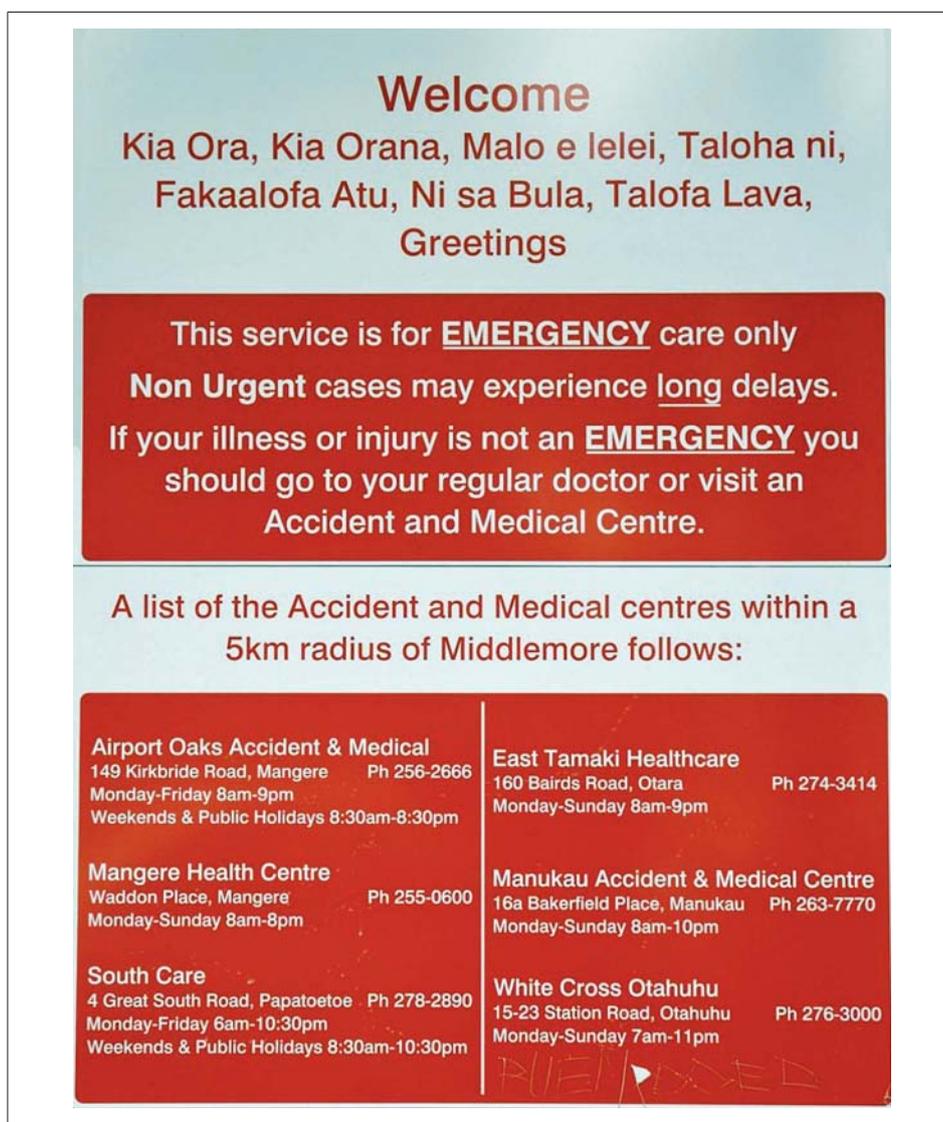
- 2.6 The 2009/10 Service Coverage Schedule requires that:
*The decision about urgency of need for medical assistance will be made by the health professional based on their clinical judgment and the individual seeking care.*⁸
- 2.7 This requirement assumes that, when the decision about urgency is made, a GP or nurse is already involved. The most common way to do this is to use a telephone advice service. The alternative is that a person travels to a GP or nurse.
- 2.8 The toll-free national Healthline telephone service is a way for people to get advice about whether and how urgently they need treatment for an injury or medical condition. We have not audited the performance of the Healthline service because it is not provided by a public entity.
- 2.9 In some areas, people may also be provided with telephone advice by phoning their GP after hours. In these areas, GPs have entered into private arrangements with a provider of telephone advice services. We have also not audited the performance of these services.

Obtaining information on what after-hours services are available

The after-hours service arrangements in some areas are complicated. People may obtain information on these arrangements from telephone advice services, DHBs, or providers of after-hours services.

- 2.10 The arrangements for after-hours services in each DHB vary. The number of services that are available to a person often depends on:
- where in the district a person lives;
 - whether it is a weekday or weekend;
 - what time it is; and
 - which GP or general practice is on the roster to provide after-hours services at the time.
- 2.11 The arrangements in some localities can be very complicated because of this variation. Figure 1 shows an example of the complexity of after-hours services in one area, with multiple providers and opening hours.

Figure 1
 Example of the variety of opening hours for different after-hours services



Note: This figure should not be relied on to provide accurate information about after-hours services currently available.

Multiple sources of information on after-hours service arrangements

- 2.12 People may obtain information on after-hours service arrangements from telephone advice services, DHB-provided information, or providers of after-hours services.

- 2.13 Healthline is expected to provide information on what services are available in a given area if urgent treatment or further advice is needed after hours. In the 12 months to 31 March 2010, Healthline received more than 18,000 calls (about 5% of its total calls, but not limited to calls about after-hours services) asking for information about health care providers, including their location.
- 2.14 Other telephone advice services may also provide information on what services are available.
- 2.15 For some people, access to a telephone may be limited for cost or other reasons. For example, the West Coast DHB's *Primary Care After-hours Strategic Plan* (2008) notes that poor mobile telephone coverage is managed in Westland by "nurses leav[ing] messages on clinic doors with contact details where possible".
- 2.16 Most of the DHBs stated in their after-hours plans that they had in place or planned communications to advise patients about availability of after-hours services and how to access them. In several after-hours plans, the main focus of these communications was to promote the use of Healthline or other "nurse telephone services".
- 2.17 Where people travel to a service in person, without knowing whether it is available after hours, they may find the service is not available. Where the service is not available, information may be provided at the service about where else the person can go, or who they can contact, for assistance. Figure 2 provides an example of this sort of information.

Figure 2
An after-hours information sign



Part 3

Availability of after-hours services

- 3.1 In this Part, we discuss:
- what DHBs were required, or had committed, to do about the availability of after-hours services; and
 - the availability of after-hours services within 60 minutes' drive.

Summary of our findings

- 3.2 At the time of our audit fieldwork, and according to the information that DHBs confirmed to us as accurate at that time, after-hours services were always available within 60 minutes' drive for almost all (99.7%) of New Zealand's population in a typical week. Service coverage, in terms of geographic availability, was more than that required by the *2009/10 Service Coverage Schedule*.
- 3.3 The people who had to drive for longer than 60 minutes to reach the nearest after-hours service arranged by their own DHB were generally in rural areas.

What district health boards were required to do

- 3.4 Under the *2009/10 Service Coverage Schedule* for DHBs, after-hours services are expected to be available within 60 minutes' travel time for 95% of a DHB's population.⁹ Where a nurse delivers those after-hours services, medical back-up has to be available.¹⁰
- 3.5 Guidance about the availability of after-hours services within 60 minutes' travel time was provided in the report of the After Hours Primary Health Care Working Party. The report stated that:

The travel time applies to travel by road from the homes of the enrolled population to the site of the after hours service.

PHOs and DHBs, when planning after hours services, should generally limit the need for communities to travel in excess of 60 minutes to people living in small remote settlements or scattered populations.¹¹

9 Ministry of Health, *2009/10 Service Coverage Schedule*, page 15.

10 Ministry of Health, *2009/10 Service Coverage Schedule*, page 15.

11 After Hours Primary Health Care Working Party (July 2005), *Towards Accessible, Effective and Resilient After Hours Primary Health Care Services: Report of the After Hours Primary Health Care Working Party*, Ministry of Health, Wellington, section 4.2, page 11 (pdf version).

Availability of after-hours services within 60 minutes' drive

All DHBs' after-hours plans met the Government's expectation that they make after-hours services available to 95% of their population within 60 minutes' travel time.

- 3.6 We reviewed DHBs' after-hours plans (which included DHB funding proposals and other documents) to determine where after-hours services arrangements were planned. We confirmed with DHBs that this reflected arrangements within the district at that time. We used this information and analysis from a geographical information system to determine what percentage of each DHB's population could reach after-hours services within 60 minutes' travel by road (see Appendix 1 for more information about our analysis).

How we determined the availability of after-hours services

- 3.7 We worked with a geographical information systems specialist to determine, for each DHB, the percentage of the population living within 60 minutes' drive of an after-hours service. When carrying out this analysis, we assumed that people drive from their homes to the nearest after-hours service by the fastest road route.
- 3.8 We carried out our analysis twice. First, we assumed that people would travel to the nearest after-hours service regardless of whether that service was within their DHB's district (see Figure 3). We repeated the analysis assuming that people would travel to the nearest after-hours service within their DHB's district (see Figure 4).
- 3.9 The results of our analysis show that after-hours services planned by DHBs met the Government's expectation that after-hours services be available to 95% of a DHB's population within 60 minutes' drive.
- 3.10 Figure 3 shows the percentage of each DHB's population that always had an after-hours service available within 60 minutes' drive. It also shows the number of people for whom an after-hours service was sometimes available, and those for whom it was never available, within 60 minutes' drive. It assumes that people would and could travel to the nearest after-hours service regardless of whether that service was within their DHB's district. Figure 4 shows the same information, but assumes instead that people would and could travel to the nearest available after-hours service within their DHB's district.

Figure 3
Percentage and number, by district health board, of the population with after-hours services that were always available, were sometimes available, or were never available within 60 minutes' drive (in a typical week, and regardless of whether the service was within a district health board's district)

DHB	DHB population at the 2006 Census	% of DHB population always with after-hours services available within 60 minutes' drive	Number of people after-hours services were sometimes available to within 60 minutes' drive	Number of people after-hours services were never available to within 60 minutes' drive
Auckland	404,670	99.9	0	485
Bay of Plenty	195,024	99.9	0	224
Canterbury	466,365	99.9	131	306
Capital and Coast	266,688	100.0	0	0
Counties Manukau	433,053	99.4	2359	73
Hawke's Bay	148,293	99.6	4	547
Hutt Valley	136,050	100.0	0	0
Lakes	98,421	100.0	0	0
MidCentral	158,808	99.2	768	538
Nelson Marlborough	130,080	99.0	0	1283
Northland	148,437	99.6	15	525
Otago	179,481	99.0	1785	80
South Canterbury	53,955	99.6	131	93
Southland	106,767	99.2	568	305
Tairāwhiti	44,433	98.2	0	783
Taranaki	104,355	99.7	72	244
Waikato	339,204	99.7	268	664
Wairarapa	38,607	99.1	267	81
Waitemata	481,852	99.9	323	81
West Coast	31,371	97.9	630	35
Whanganui	62,190	99.9	14	53
All DHBs	4,028,104	99.7	7335	6400

Note: Darker shading has been used to highlight the DHBs with 1000 or more residents who never had or only sometimes had after-hours services available within 60 minutes' drive.

- 3.11 Although, at the time of our analysis, planned after-hours services were always available to almost all DHB populations within the required travel time, there were 13,735 people who may have had to travel for longer than 60 minutes to reach an after-hours service regardless of whether the service was within their DHB district.
- 3.12 The expectation in the *2009/10 Service Coverage Schedule* is based on the percentage of a DHB's population that services are provided to. The DHBs with more than 1000 residents who did not always have after-hours services available within 60 minutes' drive (regardless of DHB district) were Counties Manukau, MidCentral, Nelson Marlborough, and Otago.

Figure 4
Percentage and number, by district health board, of the population with after-hours services that were always available, were sometimes available, or were never available within 60 minutes' drive (in a typical week, and within a district health board's district)

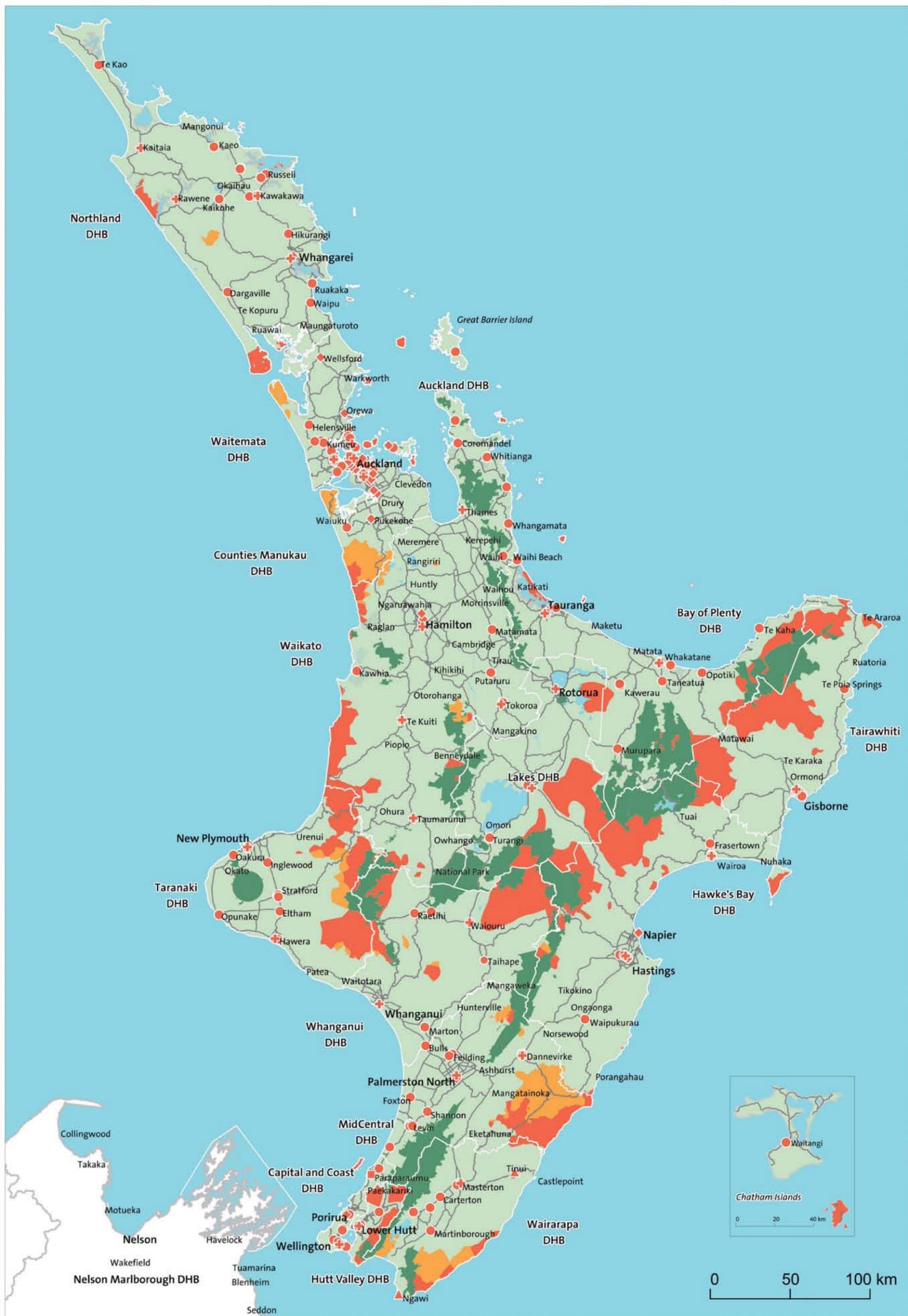
DHB	DHB population at the 2006 Census	% of DHB population always with after-hours services available within 60 minutes' drive	Number of people after-hours services were sometimes available to within 60 minutes' drive	Number of people after-hours services were never available to within 60 minutes' drive
Auckland	404,670	99.9	0	485
Bay of Plenty	195,024	99.9	0	224
Canterbury	466,365	99.9	131	306
Capital and Coast	266,688	100.0	0	0
Counties Manukau	433,053	99.3	2771	73
Hawke's Bay	148,293	99.6	1	576
Hutt Valley	136,050	100.0	0	0
Lakes	98,421	99.7	253	0
MidCentral	158,808	93.2	9759	1109
Nelson Marlborough	130,080	99.0	0	1283
Northland	148,437	99.6	15	525
Otago	179,481	98.9	1785	201
South Canterbury	53,955	99.6	15	223
Southland	106,767	99.2	569	310
Tairāwhiti	44,433	97.9	8	913
Taranaki	104,355	99.6	79	339
Waikato	339,204	99.6	752	694
Wairarapa	38,607	99.1	267	81
Waitemata	481,852	99.9	323	81
West Coast	31,371	97.9	630	35
Whanganui	62,190	99.9	14	54
All DHBs	4,028,104	99.4	17,372	7512

Note: Darker shading has been used to highlight the DHBs with 1000 or more residents who never had or only sometimes had after-hours services available within 60 minutes' drive.

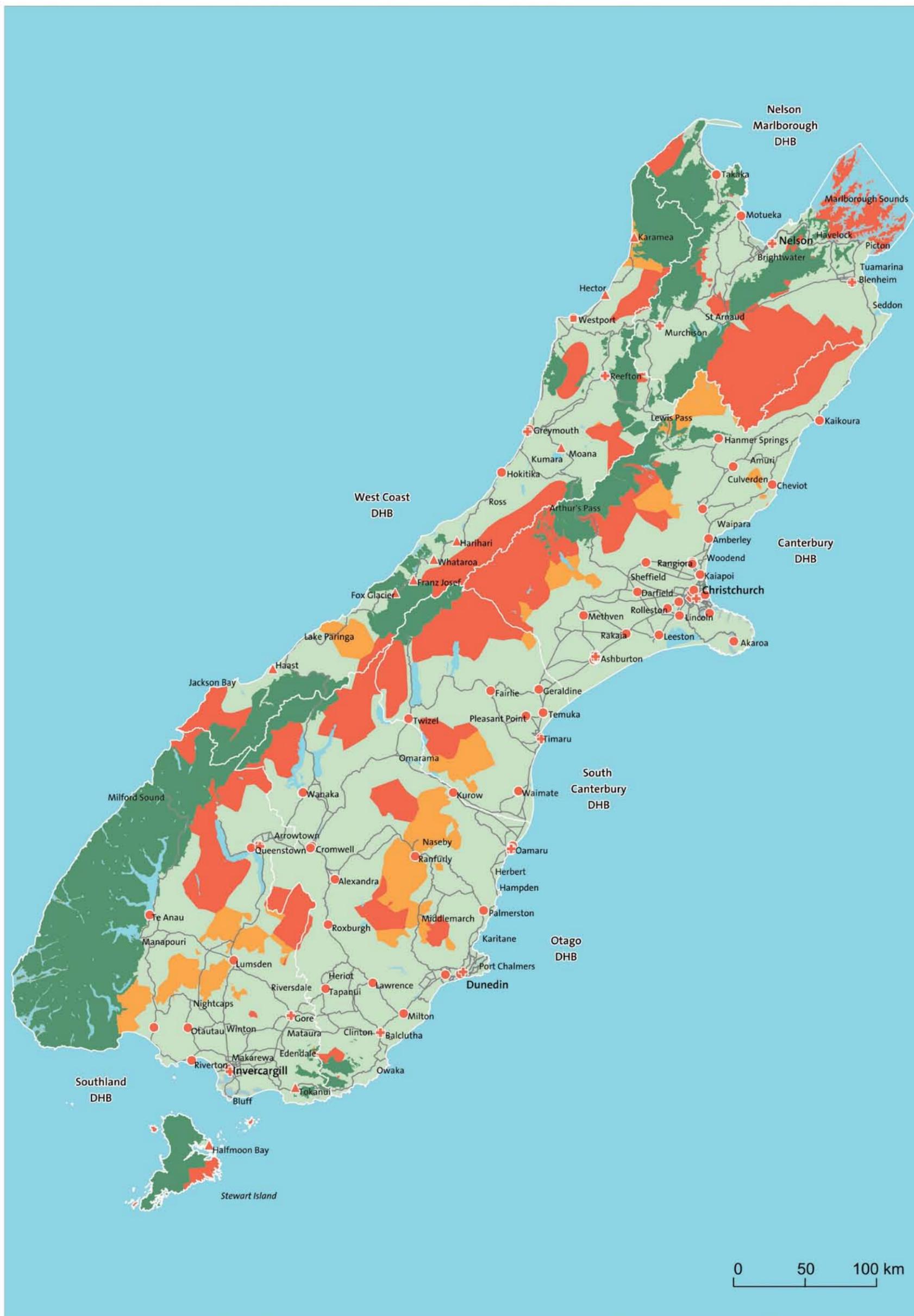
- 3.13 Figure 5 shows, for the North and South Islands, the areas where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive during a representative week, regardless of whether the service was available within the district health board district.
- 3.14 In Part 8, we provide more detailed maps showing this information for each DHB.
- 3.15 We have a comprehensive technical document that outlines the information sources, assumptions, and analytical methodology used to prepare these maps and tables. Readers interested in obtaining a copy can email their request to reports@oag.govt.nz.

Figure 5

Areas where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for the population of each district health board (in a typical week, and regardless of whether the service was within a district health board's district)



- ◆ Accident and medical centre
- General practice
- ✚ Hospital
- ▲ Nurse
- Always available
- Sometimes available
- Never available
- National parks
- Lakes and ocean



- ◆ Accident and medical centre
- General practice
- ⊕ Hospital
- ▲ Nurse
- Always available
- Sometimes available
- Never available
- National parks
- Lakes and ocean

Nurse-led services had medical back-up arrangements

- 3.16 As we noted in paragraph 3.4, where a nurse delivers a service, there is a requirement in the *2009/10 Service Coverage Schedule* for the nurse to have medical back-up. DHBs' after-hours plans showed, or DHBs told us, that they had back-up arrangements for planned nurse-led services. The back-up arrangements typically took the form of "standing orders",¹² and a doctor available on call.

¹² A standing order is a written instruction issued by a doctor that authorises other health practitioners, such as nurses, to supply and administer prescription medicines or controlled drugs to patients specified in the instruction, without a prescription. This definition is based on the Ministry of Health's *Guidelines for the Development and Operation of Standing Orders* (revised 2006), page 2.

Part 4

Affordability considerations in after-hours plans

- 4.1 In this Part, we discuss:
- what DHBs were required, or had committed, to do about the affordability of after-hours services;
 - the cost of after-hours services; and
 - how DHBs had identified and addressed affordability barriers.

Summary of our findings

- 4.2 Some patients need to pay more for after-hours services than for daytime services. DHBs' after-hours plans showed that co-payments (what a patient pays) for a visit to an after-hours service range from \$0 to \$95 for New Zealand residents.
- 4.3 Most DHBs' plans identified broad affordability issues and identified actions under way or proposed to address at least one aspect of the affordability of after-hours services. However, in our view, DHBs need to do further work to identify specific affordability issues in their districts, including identifying those population groups most affected by affordability issues.

What district health boards were required to do

- 4.4 In line with the *2009/10 Operational Policy Framework*, which was in place when we carried out our audit fieldwork, DHBs are required to work with PHOs to ensure that affordable primary health care services are available. The *2009/10 Service Coverage Schedule* holds DHBs accountable for PHOs providing "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".¹³
- 4.5 In our view, it is reasonable to expect that after-hours services may be in a different location with different operating costs from daytime services. However, we expected that DHBs would collect and analyse information to determine whether there were any affordability barriers that would prevent patients from accessing after-hours services. If such barriers existed, we expected the DHBs to have identified actions they would take to reduce or remove those barriers.
- 4.6 We reviewed DHBs' after-hours plans to see whether DHBs had proposed any actions they would take to reduce or remove – or encourage others to reduce or remove – affordability barriers. Some decision-making about the way after-hours services are delivered rests with PHOs,¹⁴ and some barriers are beyond the DHBs' ability to address.

¹³ Ministry of Health, *2009/10 Service Coverage Schedule*, page 14.

¹⁴ For example, when opening times will be and where PHO members decide to locate their businesses.

Cost of after-hours services

Some patients need to pay more for after-hours services than for daytime services. DHB plans show that co-payments for a visit to an after-hours service ranged from \$0 to \$95.

- 4.7 Typically, co-payments for after-hours services depend on what service the patient uses, the age of the patient, whether they are enrolled with the PHO, and whether they have a Community Services Card or High Use Health Card. Patients may also need to pay more for pharmaceuticals after hours.
- 4.8 Co-payments for after-hours services for New Zealand residents reported in DHBs' after-hours plans ranged from \$0 (for example, at hospital emergency departments¹⁵ and – at some general practices – for children under six years of age) to \$95 (for visits to some GPs or to some accident and medical centres). The DHB plans showed that temporary visitors to New Zealand and patients requiring home visits could expect to pay considerably more than this for after-hours services in some districts.
- 4.9 Figure 6 shows some examples, from DHBs' after-hours plans, of the higher costs a patient might need to pay for after-hours services.

Figure 6

Examples of higher costs a patient might need to pay for after-hours services

Nelson Marlborough DHB – Funding application to Ministry of Health for urgent after-hours primary health care services (1 May 2009):

... patients accessing PHC [primary health care] services after-hours have higher out-of-pocket expenses which may include higher consultation and prescription costs compared to regular general practice. For example, an enrolled patient paying \$27-\$30 for a daytime service with their regular General Practitioner (GP) and \$3 at the chemist for the prescription, would pay \$65-\$70 for the GP service and \$15 ... for the prescription in a similar setting during evening hours. This represents a \$50 increase for the service.

Otago DHB – Proposal for after-hours primary health care services (April 2009):

In Otago, an enrolled patient paying \$23-\$30 for a daytime service with their regular General Practitioner (GP) can pay up to \$90 co-payment for an after-hours consultation.

15 Subject to eligibility requirements.

- 4.10 How DHBs reported co-payment information within their after-hours plans varied and was not always clear. This meant that we cannot provide further detail on the variation of co-payments for all DHBs. Further, two DHBs did not include information about after-hours co-payments within their plans, and one included very limited information.
- 4.11 It is useful for DHBs to include information about co-payments for after-hours services within plans because the level of co-payments is an important factor in determining whether patients can afford to access after-hours services.

Identifying and addressing affordability barriers

DHBs should include clearer and more specific information about affordability barriers in their after-hours plans. The plans showed that most DHBs proposed, or were taking, action to address at least one aspect of affordability.

Identifying affordability barriers

- 4.12 Most DHBs assembled some information within their after-hours plans that would help them draw conclusions about the affordability of after-hours services within their district. This included information:
- about the socio-economic status of communities;
 - from surveys of the health workforce or residents about barriers to accessing after-hours services; and
 - about the costs of after-hours services for patients.
- 4.13 However, few DHBs drew this information together to reach clear conclusions about affordability barriers within their districts. Figure 7 sets out how well DHBs had identified affordability barriers to accessing after-hours services.

Figure 7
How well district health board after-hours plans identified affordability issues

Number of DHBs	Level of identification of affordability barriers within DHB after-hours plans
3	<p>Clear information about parts of the population affected by affordability issues, allowing the extent of affordability issues to be gauged.</p> <p>Two plans identified transport costs as an issue, and two plans identified telephone ownership as a cost issue.</p>
2	<p>Clear information about where there were no affordability barriers.</p> <p>These plans noted that patient co-payments were affordable, and not a barrier to access. Both plans implied that the cost of transport was a barrier to accessing after-hours services.</p>
13	<p>Broad identification of affordability issues.</p> <p>These plans stated that there were barriers to affordability for residents in the DHB district, but did not identify which parts of the population were affected by them.</p> <p>One plan noted briefly, and two plans implied, that there were issues with transport costs.</p>
3	<p>No identification of affordability issues.</p> <p>Two of these plans included information that implied potential affordability issues – for example, typical income for residents, after-hours co-payments, and uptake of Work and Income New Zealand grants* to pay for health care. However, the plans did not draw any conclusion about whether affordability was a barrier.</p>

* State financial assistance.

4.14 Overall, there was room for most DHBs to use clearer and more specific information about whether affordability barriers were preventing or were likely to prevent some patients from accessing after-hours services in their districts. In particular, most plans could be more specific about:

- which cost factors most affect a patient's ability to afford services – for example, the cost of getting to after-hours services, paying for the service, or paying for pharmaceuticals; and
- which communities and population groups were most affected by affordability barriers, and where they lived.

Addressing affordability barriers

4.15 Most DHBs identified in their plans actions under way, or actions they proposed to carry out, to address at least one aspect of affordability.

- 4.16 Mainly, DHBs proposed to address affordability issues by keeping patient co-payments low, or by introducing patient subsidies either to after-hours services or through vouchers.¹⁶ Twelve DHBs proposed, or had in place, such actions.
- 4.17 Four DHBs proposed, or were considering, schemes to assist patients with travel costs. These schemes included travel vouchers, a hardship fund, and taxi money for older people.
- 4.18 Several DHBs stated in their after-hours plans that they did, or should, advise patients about financial assistance available from Work and Income New Zealand to assist with paying for after-hours services.
- 4.19 About half the plans included actions that the DHB implied it could take to address affordability barriers. It was not clear whether the DHBs intended to take those actions.

Recommendation 1

We recommend that district health boards better identify, consider, and respond to affordability barriers when planning, funding, and providing after-hours services.

¹⁶ One DHB proposed having a small number of vouchers at the hospital emergency department for patients to use an alternative after-hours service for free or for a reduced cost. Another DHB proposed having vouchers to enable specific high-needs patients to use local after-hours services at a reduced cost.

Part 5

Transport considerations in after-hours plans

- 5.1 In this Part, we discuss:
- what DHBs were required, or had committed, to do about transport barriers to accessing after-hours services;
 - DHBs' efforts to identify and address transport barriers; and
 - services for people unable to travel to after-hours services.

Summary of our findings

- 5.2 Transport barriers are another access issue that we expected DHBs to consider in their after-hours plans. People's access to after-hours services can be affected by the transport options in their particular location, including their access to motor vehicles or to public transport. Older people, in particular, can have difficulty accessing after-hours services because of transport barriers.
- 5.3 Most DHB after-hours plans identified transport barriers and actions to address those barriers, but the plans varied widely in how extensively they addressed these. In our view, if DHBs' after-hours plans were more specific about the types of transport barriers and who they affect, DHBs and after-hours service providers could better identify where and how they could help patients to access services.
- 5.4 DHBs, where within their influence, need to better identify, consider, and respond to access barriers other than affordability – such as transport barriers – when planning, funding, and providing after-hours services.

What district health boards were required to do

- 5.5 The *2009/10 Operational Policy Framework* states that:
- DHBs are required to work with PHOs to: ...
Ensure their population can access First Level Primary Care Services 24-hours a day, 7 days a week.¹⁷*
- 5.6 We expected that DHBs, in leading the planning for after-hours services, would collect and analyse information to determine whether there were any transport barriers that would prevent patients from accessing after-hours services. We looked in DHBs' after-hours plans for this information.
- 5.7 We also reviewed DHBs' after-hours plans to see whether DHBs proposed any action to address transport barriers. However, we did not expect that they would always be able to do so, because some decision-making about the way after-hours services are delivered rests with PHOs, and because some barriers – for example, the extent of the roading network – are beyond the DHBs' ability to address.

¹⁷ Ministry of Health (September 2009), *2009/10 Operational Policy Framework*, Ministry of Health, Wellington, page 42.

Identifying and addressing transport barriers

Most DHBs could improve how they identify barriers that could stop patients from getting to after-hours services. They could include clearer and more specific information about any actions that they or others intended to take to address these barriers.

Identifying barriers

- 5.8 Most DHBs identified transport barriers to some extent. Those DHBs with more advanced identification of transport barriers had identified particular communities most likely to be affected by the barriers. The findings and examples in this Part are intended to assist DHBs in further considering transport barriers and including more specific information about them in their after-hours plans.
- 5.9 The extent to which DHBs identified transport barriers in their after-hours plans varied widely. In summary:
- 12 DHBs provided some information about the nature of transport barriers in their district;
 - one DHB identified “transport” as an issue, but did not provide any details about the nature of the problem;
 - two DHBs provided vague information that implied transport problems, but stopped short of stating whether there were problems or not; and
 - six DHBs did not identify any transport problems.
- 5.10 For the 12 DHBs that provided some information about the nature of transport barriers, the most common barrier identified was travel distance/time.
- 5.11 For example, Northland DHB discussed after-hours issues on a geographic basis, by PHO. As part of this work, the DHB commented briefly on transport arrangements in place and geographic constraints, including the amount of travel time required for some patients from specific areas.
- 5.12 Three DHBs’ plans specified which communities were most affected by transport barriers. For example, Lakes DHB identified a particular township, Turangi, where residents usually have to travel 45 minutes to reach after-hours services in Taupo. The DHB noted that travel to and from Taupo was a problem for some Turangi patients, and its proposal indicated that the problem related to travel cost. We considered this information useful because it set out which community was affected and the reasons why.
- 5.13 Four DHBs’ plans identified that the availability of motor vehicles could be a barrier to accessing after-hours services. Another DHB identified a high

percentage of households in the district without access to a motor vehicle. We looked at whether there were any particular areas affected by motor vehicle access. Figure 8 sets out our results. Our analysis showed that only a very small number of people were living in areas where a relatively high proportion of households did not have access to a motor vehicle and were some distance from after-hours services.

Figure 8
Analysis of whether there are particular areas within districts with low motor vehicle ownership

We carried out our own analysis to see whether there were areas where a relatively high proportion of households did not have access to a motor vehicle and were some distance from after-hours services. We looked for extreme examples.

We used 2006 Census information by meshblock for each district to see if there were any meshblocks where at least half the households did not have access to a motor vehicle. A meshblock is the smallest geographic unit that Statistics New Zealand uses for recording census information.*

We did this to assess where people in particular areas might have the most difficulty getting to after-hours services. We acknowledge that there will be people without access to a vehicle in meshblocks with relatively high levels of car ownership.

Twenty of the 21 DHB districts had at least one meshblock where at least half the households did not have access to a motor vehicle. Almost all these meshblocks were within, or close to, urban centres or townships, and most of them were in Auckland, Wellington, and Christchurch. The residents in these areas did not usually have far to travel to the nearest service, although in most cases it is likely that they would need some form of transport to get there.

There were few meshblocks in rural areas where at least half the households did not have access to a motor vehicle. They were all in the North Island. There were:

- two small rural areas in different districts some distance (roughly 15km and 30km) from after-hours services where at least half the households did not have access to a motor vehicle; and
- two small rural areas in another district where at least half the households did not have access to a motor vehicle. After-hours services were located in, or very close to, one of these areas. The other area was about 25km away from the nearest after-hours service.

* Statistics New Zealand's website (www.stats.govt.nz) stated: "The size of a meshblock depends primarily on the number of people and type of area covered. Generally, meshblocks in rural areas have a population of around 60 people, while in urban areas meshblocks are roughly the size of city blocks and contain approximately 110 people. The meshblock pattern changes slightly every year, but for most statistical purposes a five-year update to coincide with each census is sufficient. At the time of the 2006 Census of Population and Dwellings there were 41,376 meshblocks ...".

- 5.14 A few plans stated or implied that transport costs could be a barrier for patients accessing after-hours services. This is not unexpected because there are fewer after-hours services than daytime services. The after-hours services may be further away and more expensive to travel to.

- 5.15 Public or other transport may not be as available after hours as during daytime hours, which means more expensive forms of transport may be used – for example, a taxi or ambulance instead of a bus or private car. Using an ambulance may have cost implications for the individual in some areas, and may result in the patient being unable to easily return home.

Addressing transport barriers

- 5.16 Most DHBs' plans had identified actions that the DHB or others intended to take to help patients with transport issues. In many cases, DHBs' after-hours plans could be clearer about what action was to be taken.
- 5.17 Seven of the DHBs identified clear actions that would go at least some way to addressing the transport barriers identified within their after-hours plans. Nine DHBs' plans included actions that the DHB implied that it or others might take to address any transport barriers.
- 5.18 Initiatives to address transport barriers that DHBs had implemented or proposed included:
- planning the location of after-hours services to minimise travel distances for residents;
 - providing transport subsidies for patients to travel to after-hours services (several DHBs proposed to explore this) or for home visits;
 - formal home visiting services; and
 - discussing transport issues with ambulance providers.
- 5.19 Several DHBs stated in their plans that the use of telephone advice services will allow some patients to access after-hours services without the need for travel.
- 5.20 Nine DHBs had limited or no identification of transport barriers in their after-hours plans. Half of these plans included vague descriptions of actions that DHBs or other parties might take to help patients with transport issues. It was not clear from the plans whether the DHBs or other parties intended to take any action.

Services for people unable to travel to after-hours services

DHBs need to provide clearer information in their plans about issues and services for patients unable to travel to after-hours services.

- 5.21 In addition to mobile patients without access to transport, older people may not be able to travel to after-hours services because of immobility or general frailty.
- 5.22 Eleven DHBs referred to travel barriers for older patients in their after-hours plans. This information was usually brief. There was seldom clear information about the location and number of people who could be affected by such barriers.

- 5.23 The clearest information we saw about barriers for patients unable to travel to after-hours services included brief information about the needs of older people and/or contextual information about gaps in the current service. For example, Capital and Coast DHB provided information about variability in care arrangements at rest homes and it had actions planned to address this.
- 5.24 One DHB, which had reviewed its house-call services in 2009, told us that this is a difficult matter to address because the cost of providing after-hours services for those not able to travel is high, and only a very small group of patients need the service.
- 5.25 It is important that DHBs have a good idea of the general location and number of patients unable to travel to after-hours services, including the reasons why they are unable to travel. DHBs need this information to identify whether they have enough services in place, and whether any changes to services would have adverse effects on these patients.

Home visiting services

- 5.26 It was often not clear whether home visiting services were available as part of after-hours services. Five DHBs stated in their plans that after-hours care arrangements included an option for home visits by GPs. Another DHB identified provision for home visits by a district nurse. Another DHB proposed arrangements for a mobile after-hours service for rest homes.
- 5.27 Several other DHBs had unclear or ambiguous information in their after-hours plans about whether formal home visiting services were available. Many plans included some information about co-payments for house calls, but there was not always enough information to determine the extent of home visiting services in a district.

Older people

- 5.28 Older people, including those living in rest homes, may not be able to travel to after-hours services because of general frailty or mobility difficulties. It may be difficult for older people, especially those living alone, to travel to services during the night, even where transport is available.
- 5.29 It is important that DHBs record information in their after-hours plans about issues that older people are likely to encounter in getting to, or otherwise accessing, after-hours services. This information will help to identify whether there are fundamental problems for this group of people in accessing services and where the effectiveness of services can be improved. It is also important information for decision-makers to consider if they are changing the way that after-hours services are arranged.

- 5.30 Overall, DHBs' after-hours plans needed to consider transport barriers for older people more. Only a few plans considered difficulties that older people may have accessing after-hours care.
- 5.31 In summary:
- four DHBs' after-hours plans discussed transport issues for older people and/or issues for older people accessing home-based services after hours;
 - seven DHBs broadly identified in their after-hours plans that older people can have difficulty accessing after-hours services, but provided little further detail;
 - one plan proposed work to identify barriers for older people accessing after-hours care;
 - one plan proposed a separate project to prepare a comprehensive management plan for providing after-hours care within rest homes; and
 - eight DHBs' after-hours plans did not identify issues for older people. However, some of these plans identified services in place – for example, home visiting services.
- 5.32 Several DHBs that identified broad or specific issues for older people proposed some actions to address the issues. These included:
- providing subsidies for home visits;
 - review of care planning within rest homes – for example, whether well-qualified staff are always available; and
 - a taxi fund for patients who would otherwise require a home visit.

Recommendation 2

We recommend that district health boards, where it is within their influence, better identify, consider, and respond to access barriers other than affordability – such as transport barriers – when planning, funding, and providing after-hours services.

Part 6

Pharmacy services and diagnostic services

6.1 In this Part, we discuss:

- what DHBs were required, or had committed, to do about access to pharmacy services after hours;
- access to pharmacy services; and
- access to diagnostic services.

Summary of our findings

6.2 Sometimes, people need more than an after-hours consultation with a GP. They might need pharmacy services or diagnostic services.

6.3 Overall, DHBs should do more to consider patients' access to pharmacy services within after-hours plans.

What district health boards were required to do

6.4 The *2009/10 Service Coverage Schedule* requires DHBs to “use best endeavours to ensure a level of access to after-hours pharmacy services that meets the reasonable needs of their populations”.¹⁸ Further, in 2006, DHBs agreed to consider “access to pharmaceuticals”¹⁹ in preparing after-hours plans.

6.5 We reviewed DHBs' after-hours plans to see how DHBs had considered patients' access to pharmacy services.

Access to pharmacy services

Most DHBs could be clearer in their after-hours plans about the extent to which pharmacy services are available, including patients' access to pharmaceuticals.

6.6 It is important that patients can access pharmacy services after hours when they need to. For some patients, the benefits of access to timely medical assistance can be reduced by a lack of access to pharmaceuticals.

6.7 In some instances, patients may not have ready access to pharmacy services after hours. For example, pharmacy services may not be available overnight or may be some distance from where the patient has visited the GP or nurse. However, we have been told that GPs, particularly those in rural areas, may manage this by holding pharmaceuticals at their practice.

6.8 In most cases, DHBs had not included clear information in their after-hours plans about issues that patients may have in accessing pharmacy services. The two clearest plans we saw:

¹⁸ Ministry of Health, *2009/10 Service Coverage Schedule*, page 32.

¹⁹ *Response to Recommendations of After Hours Primary Health Care Working Party*, published 9 March 2006 on the Ministry of Health's website, www.moh.govt.nz.

- briefly outlined the pharmacy services available after hours in the district;
- included information about gaps and issues in these services; and
- specified actions that the DHB or others were taking, or intended to take, to address these gaps and issues.

6.9 Eight DHBs identified within their after-hours plans initiatives that they had in place, or proposed to take, to improve patients' access to pharmacy services after hours. Figure 9 sets out two examples of these.

Figure 9
Examples of district health board initiatives to improve patients' access to pharmacy services after hours

Bay of Plenty DHB stated an intention in its after-hours plan to work with providers to ensure that after-hours pharmacy services were available.

MidCentral DHB stated an intention in its after-hours plan to ensure that a local pharmacy was available when regular after-hours clinics were held. This DHB had also arranged for GPs to carry a range of common medicines that they could dispense.

6.10 Eight DHBs did not identify issues with patients' access to pharmacy services within their after-hours plans. Access to pharmacy services is an important factor in providing patients with after-hours care. In our view, DHBs need to consider this further as part of their after-hours planning.

Access to diagnostic services

- 6.11 We have not audited the availability of diagnostic services after hours. However, not all after-hours services have the same level of access to diagnostic facilities, and it is not always reasonable to expect that they do.
- 6.12 Where a required diagnostic service is not available after hours, patients may be referred to another service, or may have to travel to hospital to receive the care they need. This means that, although patients may be able to get to an after-hours service within 60 minutes' drive, in practical terms, they may not be able to get to an after-hours service that fully meets their needs within that time.
- 6.13 At the time of our audit fieldwork, the Ministry of Health was seeking expressions of interest for the Government's Better, Sooner, More Convenient primary health care initiative. This work was intended to achieve faster implementation of the service model improvements envisaged in the Primary Health Care Strategy. This included devolving more treatment and diagnostic services from secondary health care services (such as hospitals) to primary health care services. It is too early to comment on what any changes resulting from this initiative will mean for patients accessing after-hours services.

Part 7

Are after-hours services sustainable?

- 7.1 In this Part, we discuss:
- risks to the sustainability of after-hours services;
 - how DHBs were addressing the sustainability of their after-hours services;
 - how DHBs were planning for peaks in tourist populations in their sustainability considerations; and
 - how DHBs could further mitigate risks to the sustainability of after-hours services.

Summary of our findings

- 7.2 DHB after-hours plans showed that there were after-hours services in most DHB districts that were struggling to recruit and retain the staff they needed, or struggling financially.
- 7.3 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.

Risks to the sustainability of after-hours services

Workforce, financial viability, and workload are important factors when considering the sustainability of after-hours services.

Do after-hours service providers have enough staff?

- 7.4 Seven of the 21 DHBs had identified in their plans specific after-hours services that had trouble recruiting and retaining enough staff to be sustainable. Most of the services that DHBs had identified as struggling to recruit and retain enough staff were rural. A further five DHBs noted general issues about recruiting and retaining after-hours staff within their district.
- 7.5 An evaluation of part of the implementation of the Primary Health Care Strategy, published in September 2009,²⁰ reported that 24% of surveyed general practices had vacancies for GPs. The mean duration of the vacancy was eight months. Rural practices were more likely to have at least one vacancy, with 38% having a vacancy at the time of the survey (between August 2006 and June 2007).
- 7.6 The GP workforce is also ageing. A survey of GPs²¹ reported that, between 1998 and 2008, the average age of GPs went up from 42 to 49.

20 Raymont, A and Cumming, J (2009), *Status and Activities of General Medical Practices*, Health Services Research Centre, Wellington.

21 The Royal New Zealand College of General Practitioners (November 2009), *2008 RNZCGP Membership Survey: The general practitioner workforce, Current Demographics, Emerging Trends*, The Royal New Zealand College of General Practitioners, New Zealand.

Can service providers afford to keep providing after-hours services?

- 7.7 Our review of DHBs' after-hours plans showed that 11 of the 21 DHBs had identified specific after-hours services that were facing financial difficulties.
- 7.8 Six of the 11 DHBs that identified services facing financial difficulties were giving extra funding to those services. Two of the six DHBs cited high staffing costs for overnight services as the reason for financial difficulties. The services most commonly supported were accident and medical centres. As examples, Whanganui DHB had provided additional funding to an accident and medical centre in its district, and Auckland and Waitemata DHBs have proposed to provide additional funds to accident and medical centres in their districts.
- 7.9 We observed some DHBs arranging for after-hours funding to be used for emergency departments where they had decided to shift after-hours services into the emergency department.

Workloads for after-hours services

- 7.10 The *2009/10 Service Coverage Schedule* holds DHBs accountable for sustainable services in rural areas:
- A sustainable service needs to be provided in rural areas. This includes services organised so as to ensure that the DHB will work with local PHOs, communities and providers to develop strategies to enable as far as possible that health practitioners have suitable clinical support, and adequate off-duty, holiday and study time.²²*
- 7.11 A number of service providers, DHBs, and stakeholders expressed concern that the support for isolated health professionals was often insufficient or fragile. This support included paramedic back-up and the ability to hire a locum (for example, a temporary GP) so that isolated health professionals could have a break from being on call.
- 7.12 We were told that a significant proportion of health professionals without adequate support can "burn out", have great difficulty selling their practices, or simply leave a district. In these situations, the community they serve can be left without a replacement GP. This in turn can increase the workloads of nearby health professionals and may, in some instances, result in people having to travel further to services, including after-hours services.

22 Ministry of Health, *2009/10 Service Coverage Schedule*, page 15.

How were district health boards addressing the sustainability of their after-hours services?

DHBs were implementing a variety of measures to address the sustainability of their after-hours services. These included reducing workloads, using telephone advice to reduce face-to-face consultation, and consolidating services.

Reducing workloads

- 7.13 The Ministry of Health (the Ministry) told us that it had funded, through a contract, the recruitment cost of GPs that rural practices could employ as locums for up to two weeks a year. The Ministry also has funding available for rural practices – for example, workforce retention funding to assist with retaining and recruiting primary health professionals in rural communities.
- 7.14 An important factor in the workload for an individual GP or nurse is the frequency with which they are rostered on call to provide after-hours service. Generally, the more health practitioners participating in a roster, the less frequently an individual is required to be on call or to deliver after-hours services.
- 7.15 Most DHB plans stated, or DHBs told us, that there were roster arrangements in place between several general practices to provide after-hours services for particular areas of their districts.
- 7.16 Several DHBs had proposed action to improve the workloads of staff carrying out after-hours work.
- 7.17 For example, West Coast DHB identified that it had a significant and ongoing GP shortage. To increase the number of practitioners available to share after-hours rosters, the DHB proposed to fund advanced training for nurses. Otago DHB proposed to provide a specialist nurse development programme to support nurses participating in after-hours rosters. Nurses were already an established part of after-hours networks in the Southland, Wairarapa, and West Coast DHB districts.

Using telephone advice to reduce face-to-face consultations

- 7.18 Using telephone advice services has the potential to make after-hours workloads more manageable if it results in more patients receiving the right care in the right place at the right time. But telephone advice does not reduce the need for there to be a GP or nurse available for those patients who need to be seen face-to-face after hours.

- 7.19 We note that Healthline, among other things, is required to provide:
*... information and advice to help the caller decide on the type of health care they or other person needs and in particular, advice to callers on self-care or advice on where they should go for diagnosis and treatment and the timeframe within which this should occur; [and] information on the availability (including time) and location of health care services, including after-hours primary health care and other services ...*²³
- 7.20 We also note that some GPs have contracted with other providers of after-hours telephone services (see paragraph 1.28).
- 7.21 We consider that telephone advice, including advice about how urgently a person needs care, can make after-hours services more sustainable, but note that it is not the whole solution.

Consolidating services

- 7.22 Fourteen of the 21 DHBs were trying to make their services more sustainable by reducing the number of after-hours services available, which therefore reduces the need for resources. This typically took the form of either drawing several rosters together into a single larger roster or shifting to the “hub and spoke” model.
- 7.23 The hub and spoke model consists of extended hours by general practices, followed by overnight services provided from a central “hub”. The hub is usually a hospital’s emergency department. Many of the 21 DHBs were using some form of hub and spoke model.
- 7.24 Potentially, this model can involve the DHB having a more sustainable service, but at the cost of longer travel times for patients. Part of the justification for the hub and spoke model is that it reduces the burden on GPs.
- 7.25 There are examples of a hub and spoke model in Thames, Tokoroa, and Taumarunui. GPs in these areas are available until 10pm or 8pm (depending on the local arrangement), and then the rural hospital in each town provides after-hours services overnight.
- 7.26 Consolidation does not remove the need to provide services to isolated regions. DHBs had identified that many isolated services were already struggling. Consolidating services cannot always make geographic coverage more sustainable, because not all services can be consolidated.

23 From Schedule E of the Healthline contract between the Ministry of Health and McKesson New Zealand Limited.

Planning for peaks in tourist populations

Several DHBs could do more to take account of high visitor numbers when planning for after-hours services.

- 7.27 In our view, all DHBs need to be aware of the effect casual visitors may have on access to after-hours services within their districts. This is because the increased population can affect the sustainability of after-hours services. DHBs should explicitly take this into account when planning the after-hours capacity of their districts.
- 7.28 In response to the recommendations of the After Hours Primary Health Care Working Party, all DHBs agreed to consider the pressure on after-hours services that is caused in some localities by an influx of casual visitors at certain periods.

Our review of DHB after-hours plans

- 7.29 We used regional tourism data to identify which DHBs would be most affected by influxes of visitors. We then reviewed DHBs' after-hours plans to see whether they had identified and were responding to any potential stresses on their after-hours services.
- 7.30 Of the 10 DHBs we considered to be most affected by casual visitors, eight had identified it as an issue in their plans. Two other DHBs' after-hours plans also mentioned the effect of casual visitors.
- 7.31 However, only two of the 10 that we considered were most affected (Otago DHB and Southland DHB) had planned any initiatives to address the issue.
- 7.32 Figure 10 lists the DHBs we identified as most affected by large numbers of casual visitors and our assessment of how each DHB identified the issue and planned its response.

Figure 10
Our review of district health boards most affected by influxes of casual visitors

DHB	Effect of casual visitor numbers	Our assessment of how the DHB identified the issue and planned its response
Lakes	Significant	Issue acknowledged but no action in response.
MidCentral	Some	Issue not identified.
Nelson Marlborough	Significant	Issue acknowledged but no action in response.
Northland	Some	Issue acknowledged but no action in response.
Otago	Some	Issue well acknowledged and some initiatives in response.
South Canterbury	Some	Issue not identified.
Southland	Significant	Issue well acknowledged and some initiatives in response.
Tairāwhiti	Some	Issue acknowledged but no action in response.
Waikato*	Some	Issue acknowledged within the after-hours plan, but no action specified within the plan. The DHB subsequently told us that it had provided additional funding over the last eight years to PHOs and to Thames Hospital to fund locums to cope with the high number of patients presenting for primary medical services between Christmas and New Year. It has also funded the Order of St John to provide increased weekend paramedic cover.
West Coast	Very significant	Issue well acknowledged and some action in response. The DHB noted that work in this area will need to be ongoing.

* Although the figures show that, overall, Waikato DHB is not significantly affected by casual visitor numbers, its district includes Coromandel and Ruapehu, which experience very high casual visitor numbers. Taking this into account, we consider Waikato DHB to be somewhat affected by casual visitor numbers.

How district health boards could further mitigate risks to the sustainability of their after-hours services

DHBs need to design their service networks to ensure sustainable and accessible after-hours service networks. For some, this may mean redesigning their existing after-hours networks.

- 7.33 In our view, the DHBs have largely been responding to the current after-hours challenges. We are concerned that this may not be enough to sustain after-hours service coverage in the future. At the time of our audit fieldwork, three of the 21 DHBs were comprehensively reviewing their after-hours arrangements so that they could address the challenges of the future.
- 7.34 The 2005 report of the After Hours Primary Health Care Working Party also recommended that:
- DHBs, in collaboration with PHOs and after hours service providers (both PHO member practices and where applicable, Accident and Medical Clinics) and Emergency Departments (EDs) ... develop and implement a planning and funding strategy for after hours primary health care for their district, including rural communities, that enables accessible, effective and resilient after hours primary health care services for all service users within current resources ...*²⁴
- 7.35 During our document review, we noted DHBs making significant efforts and changes to implement this recommendation. However, we consider that DHBs have further work to do in designing services to meet the recommendation's stated aim of enabling accessible, effective, and resilient after-hours services.

Recommendation 3

We recommend that those district health boards not already doing so, comprehensively review and, where necessary, redesign their after-hours service networks to ensure that those networks will be more sustainable in the future.

²⁴ After Hours Primary Health Care Working Party (July 2005), *Towards Accessible, Effective and Resilient After Hours Primary Health Care Services: Report of the After Hours Primary Health Care Working Party*, Ministry of Health, Wellington, Executive Summary and Recommendations, pages iv-v.

Part 8

District health boards' after-hours services

- 8.1 In this Part, we provide a description of each DHB's after-hours services and a map of each DHB district showing the locations of after-hours services in a typical week. We have colour-coded the maps to show where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive during a representative week.
- 8.2 The maps and commentary are arranged alphabetically by the name of each DHB.

Caution using the maps

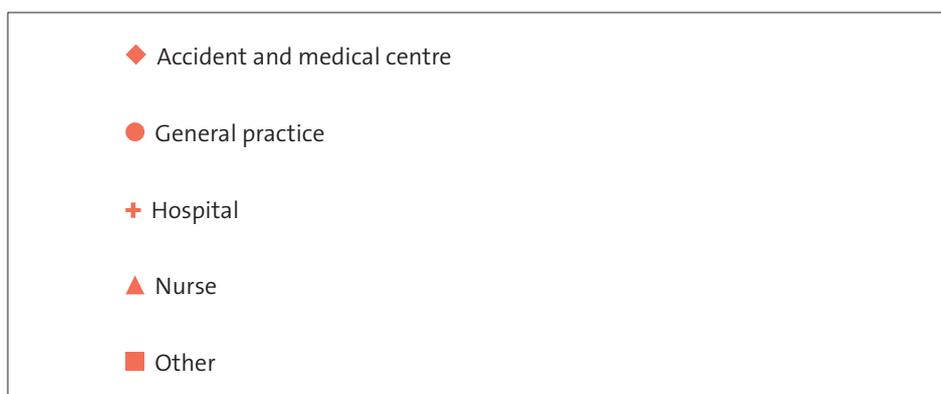
- 8.3 It is important that readers do not rely on a map to identify the specific after-hours services available to them. They should seek this information from other sources, such as their DHB, Healthline, or the providers of daytime services in their area.
- 8.4 The information shown on the maps does not include the hours that an after-hours service is open. The information was valid during 2009, but may have changed since then. In some instances, we have also used representative rather than actual information. For example, where rosters change regularly or vary a lot during a week, we included what appeared to be the most common arrangements.

Interpreting the maps

- 8.5 The individual DHB maps have been created using the geographical information system methodology described in Appendix 1. These maps assume that people drive to the nearest after-hours service – regardless of whether that service is within their DHB district.²⁵
- 8.6 Each DHB map shows the locations and types of providers of after-hours services, based on DHBs' plans. Figure 11 shows the different types of provider and the symbols used. Because some providers are very close to each other geographically, their symbols on the maps may be superimposed. This may show as overlapping, or, for some providers, only one symbol will show even though two or more providers are described.

²⁵ We have a detailed technical document outlining the information sources, assumptions, and analytical methodology used to prepare these maps. Readers interested in obtaining a copy can email their request to reports@oag.govt.nz.

Figure 11
Symbols used for after-hours service providers



- 8.7 On each map, we have used colour to identify three types of localities in terms of the availability of after-hours services within 60 minutes' drive:
- red is used to show where an after-hours service was never available within 60 minutes' drive in a typical week;
 - orange is used to show where an after-hours service was sometimes available within 60 minutes' drive in a typical week; and
 - light green is used to show where an after-hours service was always available within 60 minutes' drive in a typical week.
- 8.8 There are some areas on the maps that, despite being shown as not having services available within 60 minutes' drive, appear relatively close to after-hours facilities. These areas have either very low or no populations, or poor or no access to public roads.
- 8.9 A darker shade of green has been used to show forests and national parks. Ocean and lakes are in blue. We have also shown the main roads and DHB boundaries.

Auckland District Health Board

Description of the after-hours services

- 8.10 Auckland City Hospital in Grafton and an accident and medical centre in Remuera were open 24 hours a day, seven days a week.
- 8.11 A further six accident and medical centres (in Onehunga, Orakei, Otahuhu, Ponsonby, St Lukes, and Three Kings) were open seven days a week from between 7.30am and 8am in the morning until between 8pm and 10pm at night.
- 8.12 Four general practices (in Sandringham, Onehunga, Otahuhu, and Panmure) were open on Saturday mornings. There was also a home visiting service that was available 24 hours a day, seven days a week.
- 8.13 On Waiheke Island, a general practice and an accident and medical centre shared an on-call roster.
- 8.14 On Great Barrier Island, a general practice provided an on-call service after hours.

Availability of after-hours services within 60 minutes' drive

- 8.15 Auckland DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.16 Figure 12 sets out the percentage of Auckland DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Auckland DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Auckland DHB district.
- 8.17 Figure 13 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Auckland DHB's population – regardless of whether the service was within the Auckland DHB district.

Figure 12

Statistics for the availability of after-hours services for Auckland District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	404,670
% of DHB population always with after-hours services available within 60 minutes' drive	99.9%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	485

Figure 13
 After-hours service coverage for Auckland District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



Bay of Plenty District Health Board

Description of the after-hours services

- 8.18 After-hours services in the Western Bay of Plenty were available at Tauranga Hospital's emergency department, which was open 24 hours a day, seven days a week, and from an accident and medical centre open until 9pm, seven days a week. Two general practices in Tauranga provided some after-hours services.
- 8.19 A general practice at Waihi Beach shared a roster for after-hours services with a nearby general practice in the Waikato DHB area. The shared roster was a mix of on-call work and clinics.
- 8.20 In the Eastern Bay of Plenty, after-hours services were available at Whakatane Hospital's emergency department, which was open 24 hours a day, seven days a week.
- 8.21 In Whakatane, there was an accident and medical centre open until 6pm in the evenings and from 9am to 12pm on weekends. Six general practices (four in Whakatane, and one each in Taneatua and Ohope) also shared an on-call roster from 5pm to 6pm weeknights and from 10pm to 11.30pm on weekends.
- 8.22 After-hours services were available in Murupara, Te Kaha, and Opotiki. There were two general practices in Kawerau that provided clinics in the morning on weekends.

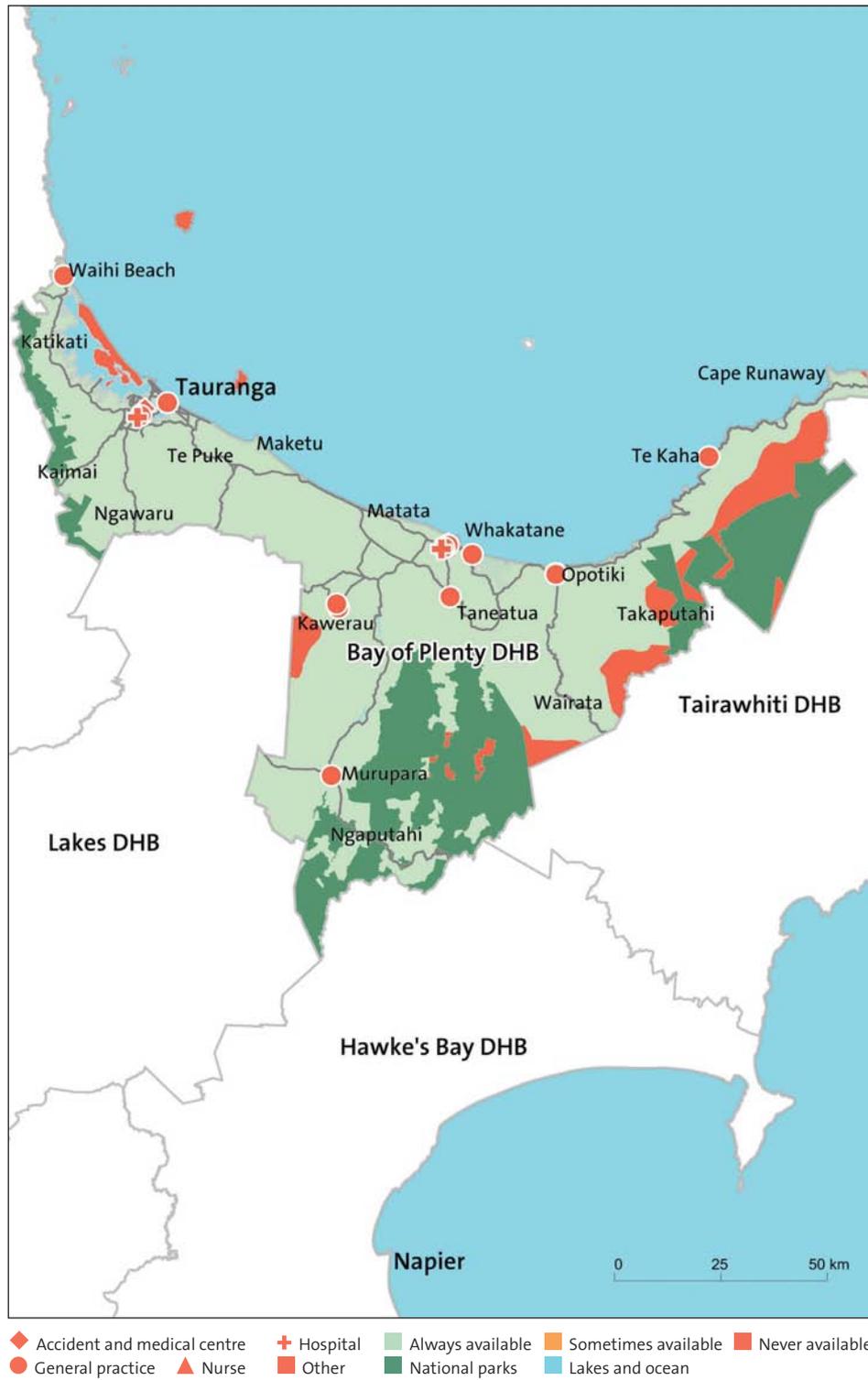
Availability of after-hours services within 60 minutes' drive

- 8.23 Bay of Plenty DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.24 Figure 14 sets out the percentage of Bay of Plenty DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Bay of Plenty DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Bay of Plenty DHB district.
- 8.25 Figure 15 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Bay of Plenty DHB's population – regardless of whether the service was within the Bay of Plenty DHB district.

Figure 14
Statistics for the availability of after-hours services for Bay of Plenty District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	195,024
% of DHB population always with after-hours services available within 60 minutes' drive	99.9%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	224

Figure 15
After-hours service coverage for Bay of Plenty District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



Canterbury District Health Board

Description of the after-hours services

- 8.26 The main provider of after-hours services in Christchurch was an accident and medical centre on the corner of Bealey Avenue and Colombo Street. The centre was open 24 hours a day, seven days a week. The DHB told us that most general practices in or near Christchurch provide after-hours services through this accident and medical centre and contribute GPs to its after-hours roster. Accident and medical centres in Riccarton and near Moorhouse Avenue were open for extended hours, including on weekends, and after these hours provided an on-call service. The DHB told us that a small number of other Christchurch practices provide their own after-hours on-call service for their enrolled patients.
- 8.27 In Christchurch, hospital-level emergency care is provided 24 hours a day, seven days a week by the emergency department at Christchurch Hospital. The DHB has identified that some patients may use the emergency department for after-hours services even if this is not the most appropriate option.
- 8.28 In Banks Peninsula, two general practices (in Diamond Harbour and Akaroa) provided after-hours services separately in the evening, overnight, and on weekends, on an on-call basis.
- 8.29 In Kaiapoi, three general practices provided on-call services until 8pm, seven days a week, on a shared-roster basis.
- 8.30 In the Selwyn district, four general practices provided services until 8pm on a shared-roster basis. After 8pm, services were provided by an urban after-hours provider. Another general practice, in Darfield, was open for limited hours on the weekends.
- 8.31 In Rangiora, six general practices shared a roster to provide limited clinic services on Saturdays and on-call services at other times.
- 8.32 In Oxford, one general practice provided after-hours services in the evening, overnight, and on weekends, on an on-call basis.
- 8.33 In Ashburton, five general practices shared a roster to provide clinic services for limited hours during the day on Saturdays and Sundays. The emergency department at Ashburton Hospital provided primary care at other times after hours.
- 8.34 A general practice in Methven and another in Rakaia provided on-call after-hours services in the evening, overnight, and on weekends, on a shared-roster basis.

- 8.35 A general practice in Rotherham and another in Hanmer Springs provided on-call after-hours services in the evening, overnight, and on weekends, on a shared-roster basis.
- 8.36 A general practice in Amberley and another in Waikari provided on-call after-hours services in the evening, overnight, and on weekends, on a shared-roster basis. The Cheviot practice joined the roster for weekends.
- 8.37 In Kaikoura, one general practice provided a clinic for two hours a day on Saturdays and Sundays, and provided on-call services in the evening, overnight, and otherwise during the day on weekends.

Availability of after-hours services within 60 minutes' drive

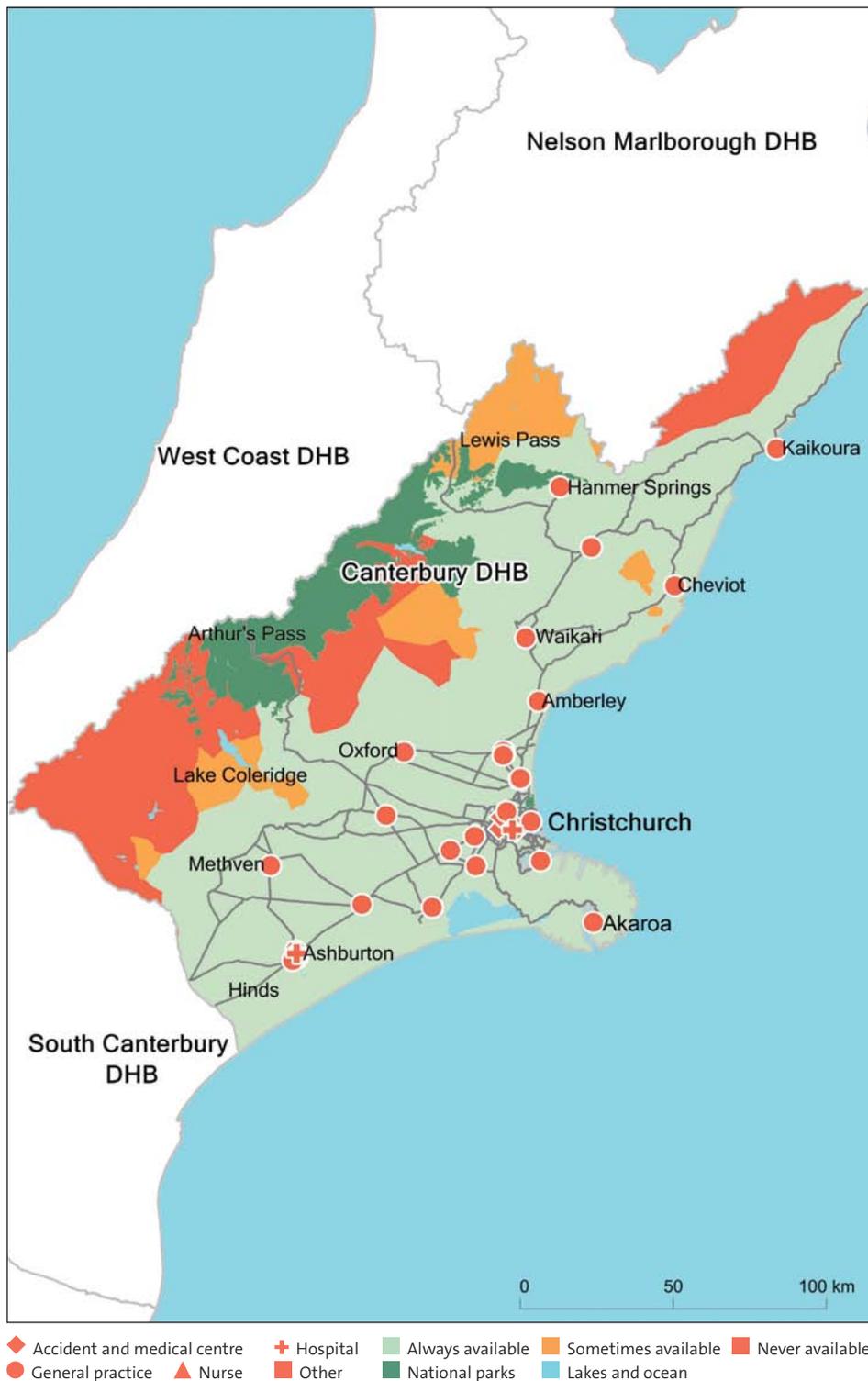
- 8.38 Canterbury DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.39 Figure 16 sets out the percentage of Canterbury DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Canterbury DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Canterbury DHB district.
- 8.40 Figure 17 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Canterbury DHB's population – regardless of whether the service was within the Canterbury DHB district.

Figure 16

Statistics for the availability of after-hours services for Canterbury District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	466,365
% of DHB population always with after-hours services available within 60 minutes' drive	99.9%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	306

Figure 17
After-hours service coverage for Canterbury District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



Capital and Coast District Health Board

Description of the after-hours services

- 8.41 In Wellington, the hospital emergency department was open 24 hours a day, seven days a week. The nearby accident and medical centre was open until 11pm, seven days a week. Two general practices were open until 11pm on weekdays. Six other general practices provided after-hours services on Saturday mornings.
- 8.42 In Porirua, an accident and medical centre within Kenepuru Hospital was open 24 hours a day, seven days a week. One general practice was open on Tuesday nights.
- 8.43 In the Kapiti district, an accident and medical centre was open until 10pm, seven days a week, and a general practice was open on Saturdays. There was also a mobile service provided by Wellington Free Ambulance and Kapiti Emergency Medical Service.

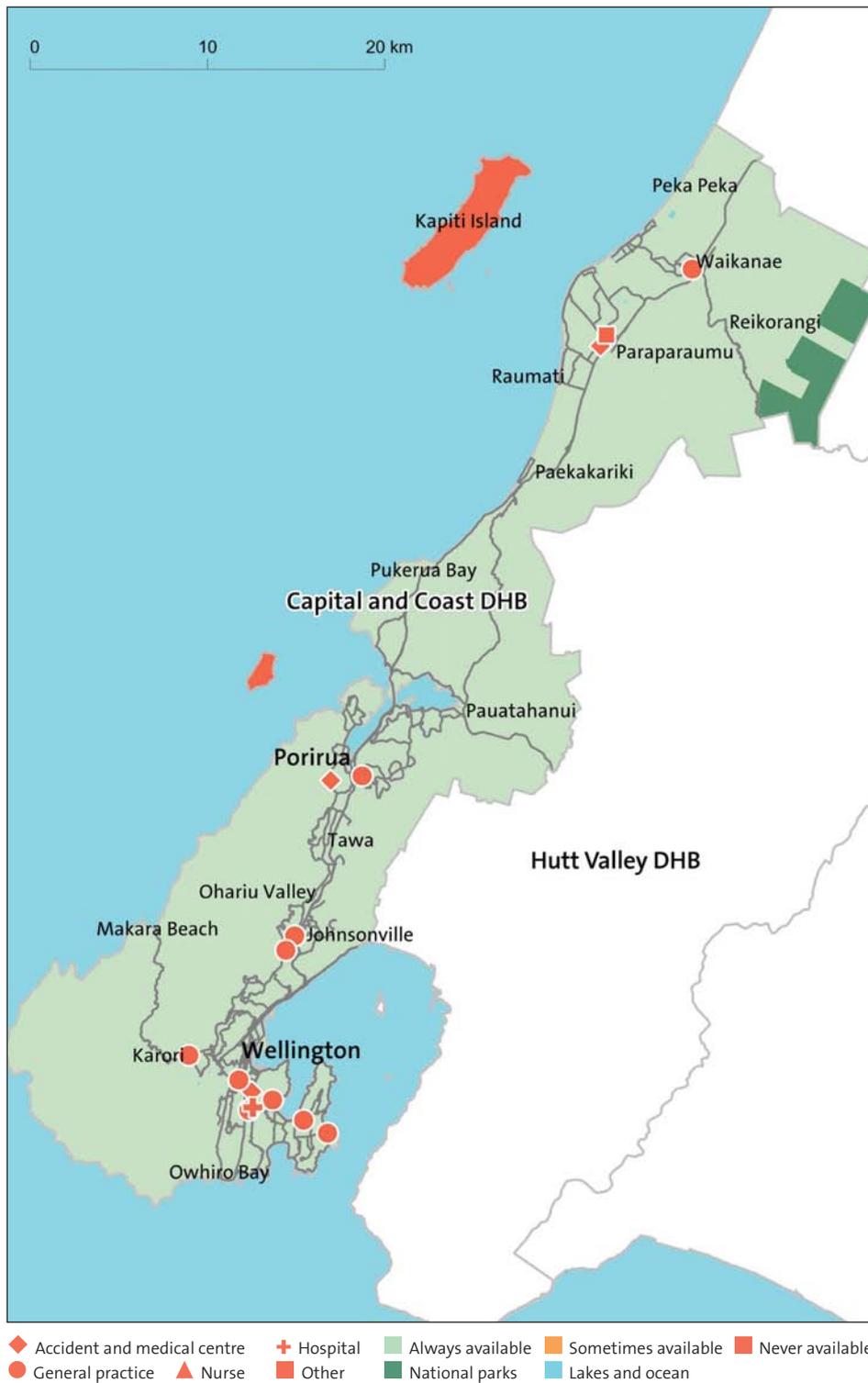
Availability of after-hours services within 60 minutes' drive

- 8.44 Capital and Coast DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.45 Figure 18 sets out the percentage of Capital and Coast DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Capital and Coast DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Capital and Coast DHB district.
- 8.46 Figure 19 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Capital and Coast DHB's population – regardless of whether the service was within the Capital and Coast DHB district.

Figure 18
Statistics for the availability of after-hours services for Capital and Coast District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	266,688
% of DHB population always with after-hours services available within 60 minutes' drive	100%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	0

Figure 19
 After-hours service coverage for Capital and Coast District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



Counties Manukau District Health Board

Description of the after-hours services

- 8.47 Middlemore Hospital's emergency department and an accident and medical centre in Howick were both open 24 hours a day, seven days a week.
- 8.48 Seven accident and medical centres (in Otara, Papakura, Takanini, Pukekohe, Chapel Downs, Dannemora, and Manukau City) were open seven days a week, closing at various times between 8pm and 11pm on weeknights and between 5pm and 11pm on weekends.
- 8.49 General practices in Waiuku and Mangere were open until 7pm or 8pm on weeknights and ran clinics on Saturdays and Sundays.

Availability of after-hours services within 60 minutes' drive

- 8.50 Counties Manukau DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.51 Figure 20 sets out the percentage of Counties Manukau DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Counties Manukau DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Counties Manukau DHB district.
- 8.52 Figure 21 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Counties Manukau DHB's population – regardless of whether the service was within the Counties Manukau DHB district.

Figure 20

Statistics for the availability of after-hours services for Counties Manukau District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	433,053
% of DHB population always with after-hours services available within 60 minutes' drive	99.4%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	73

Figure 21
 After-hours service coverage for Counties Manukau District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



Hawke's Bay District Health Board

Description of the after-hours services

- 8.53 The DHB told us that in the central Hawke's Bay district, four general practices (at Waipukurau) provided 24-hours-a-day after-hours care from Monday to Thursday, and that two-hourly GP clinics were run by rostered GPs on Saturdays and Sundays. Outside of these hours, patients were referred to either the accident and medical centre in Hastings or to Hawke's Bay Hospital if the accident and medical centre was not open.
- 8.54 In Hastings, the accident and medical centre was open until 8pm on weeknights and from 8am to 8pm on weekends. A general practice provided after-hours services until 7pm several nights a week. Another general practice was open until 7pm on weeknights and from 9am to 6pm on weekends. From 8pm to 8am every night, after-hours services were provided by Hawke's Bay Hospital's emergency department.
- 8.55 In Napier, an accident and medical clinic provided 24-hour urgent accident and medical services. This was an on-call service after 9pm.
- 8.56 In Wairoa, three permanent GPs and three locums shared an on-call roster for after-hours services. The on-call GP also covered Wairoa Hospital's emergency department after hours. Patients could also visit or phone a nurse in the Wairoa Hospital emergency department.
- 8.57 In the Chatham Islands, the GP was on-call after hours. A registered nurse provided 24-hour advice, both by phone and face to face at the clinic.

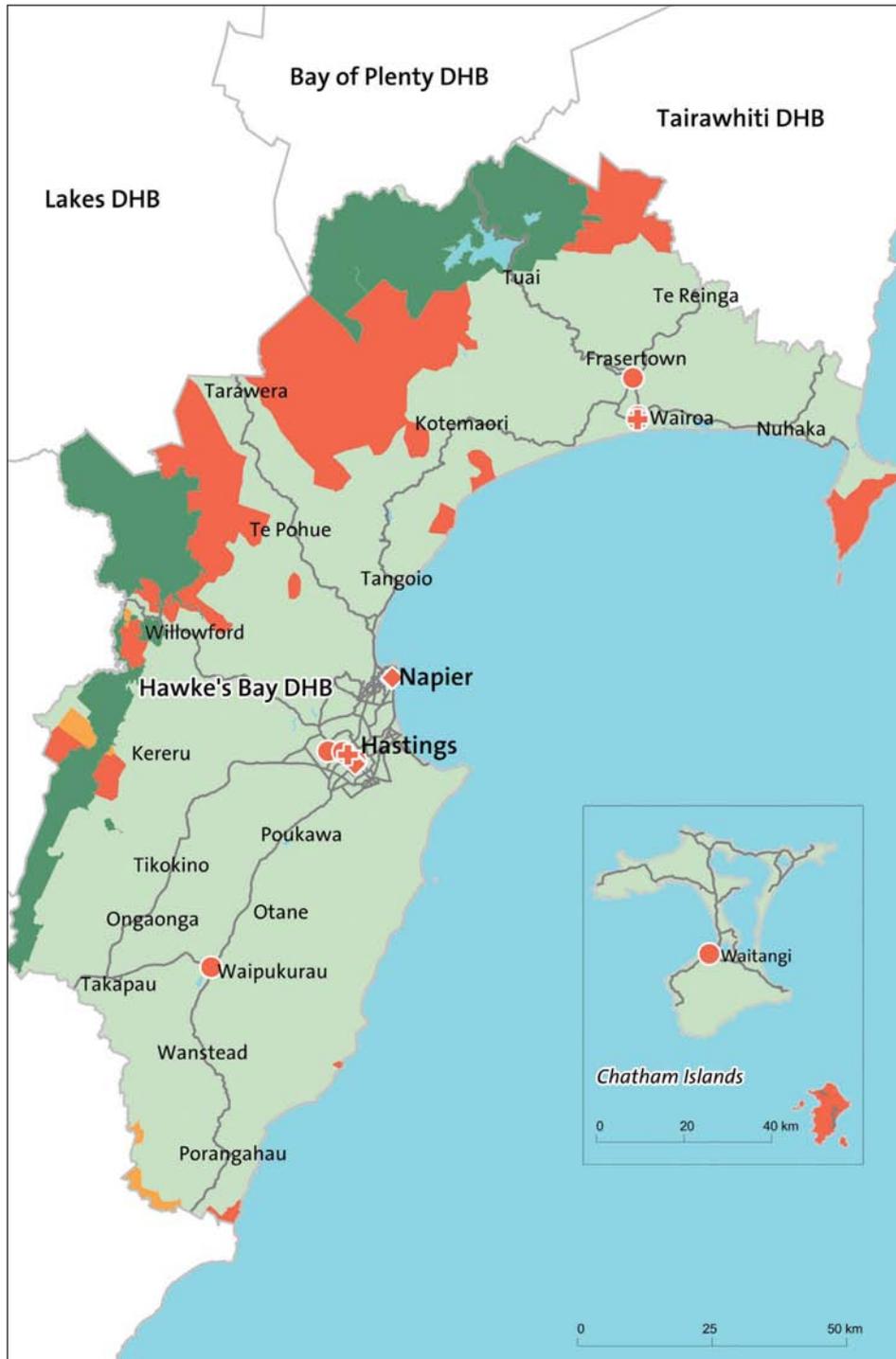
Availability of after-hours services within 60 minutes' drive

- 8.58 Hawke's Bay DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.59 Figure 22 sets out the percentage of Hawke's Bay DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Hawke's Bay DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Hawke's Bay DHB district.
- 8.60 Figure 23 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Hawke's Bay DHB's population – regardless of whether the service was within the Hawke's Bay DHB district.

Figure 22
Statistics for the availability of after-hours services for Hawke's Bay District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	148,293
% of DHB population always with after-hours services available within 60 minutes' drive	99.6%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	547

Figure 23
 After-hours service coverage for Hawke's Bay District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



- ◆ Accident and medical centre
- General practice
- ⊕ Hospital
- ▲ Nurse
- Always available
- Sometimes available
- Never available
- National parks
- Lakes and ocean

Hutt Valley District Health Board

Description of the after-hours services

- 8.61 After-hours services were available at an accident and medical centre. This operated from 5.30pm to 8am weekdays and 24 hours a day on weekends.
- 8.62 Two general practices were open or on call until 10pm or 11pm on weeknights and from 8am to 9am until 6pm on weekends. Another general practice was open until 8pm on weeknights.
- 8.63 After-hours services were also available at Hutt Hospital's emergency department, although this was not formally part of the DHB's after-hours arrangements.

Availability of after-hours services within 60 minutes' drive

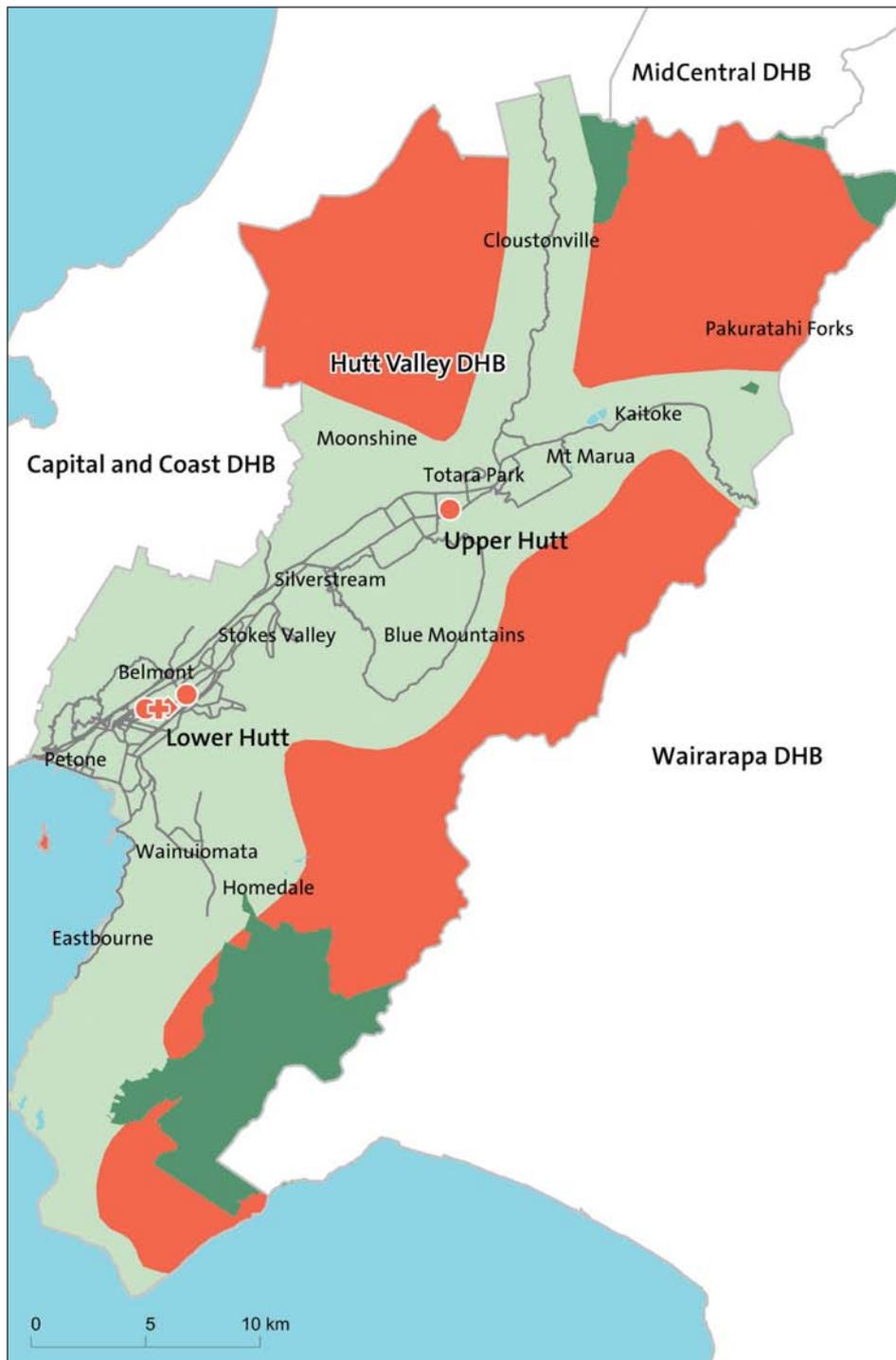
- 8.64 Hutt Valley DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.65 Figure 24 sets out the percentage of Hutt Valley DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Hutt Valley DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Hutt Valley DHB district.
- 8.66 Figure 25 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Hutt Valley DHB's population – regardless of whether the service was within the Hutt Valley DHB district.

Figure 24

Statistics for the availability of after-hours services for Hutt Valley District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	136,050
% of DHB population always with after-hours services available within 60 minutes' drive	100%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	0

Figure 25
After-hours service coverage for Hutt Valley District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



- ◆ Accident and medical centre + Hospital □ Always available □ Sometimes available □ Never available
- General practice ▲ Nurse □ Other □ National parks □ Lakes and ocean

Lakes District Health Board

Description of the after-hours services

- 8.67 In Taupo, three general practices took turns providing after-hours services between 5pm and 10pm on weekdays and from 8am to 10pm on weekends. Taupo Hospital's emergency department was open 24 hours a day, seven days a week.
- 8.68 Patients in Turangi needed to travel to Taupo to visit after-hours services, except for some Saturday mornings when a clinic operated in Turangi.
- 8.69 Patients in Mangakino could access services in Tokoroa, which is within the Waikato DHB district.
- 8.70 In the Rotorua area, after-hours services were available from an accident and medical centre from 8am to 10pm, seven days a week, with an on-call service available overnight, and from Rotorua Hospital 24 hours a day, seven days a week.

Availability of after-hours services within 60 minutes' drive

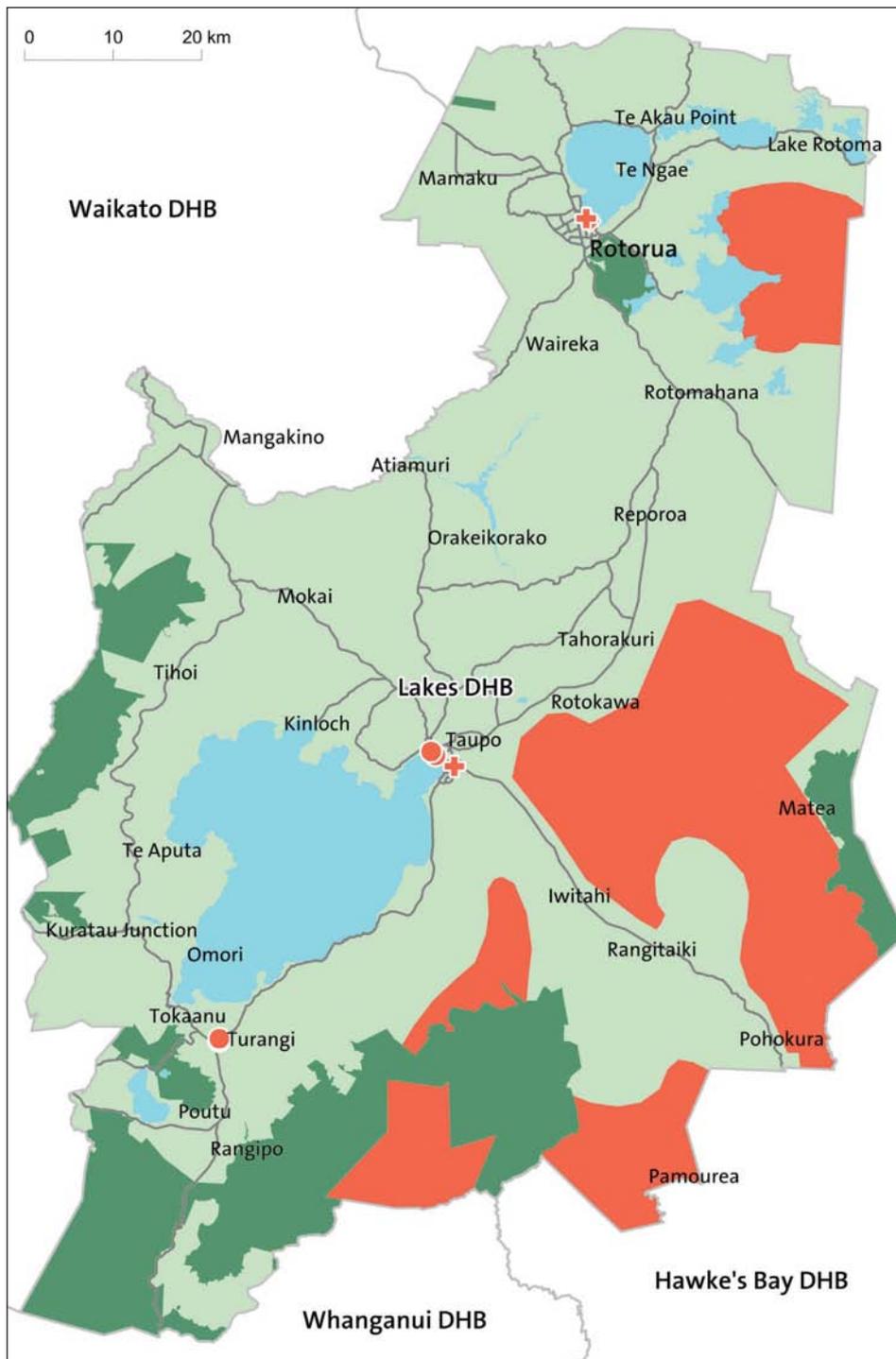
- 8.71 Lakes DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.72 Figure 26 sets out the percentage of Lakes DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Lakes DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Lakes DHB district.
- 8.73 Figure 27 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Lakes DHB's population – regardless of whether the service was within the Lakes DHB district.

Figure 26

Statistics for the availability of after-hours services for Lakes District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	98,421
% of DHB population always with after-hours services available within 60 minutes' drive	100%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	0

Figure 27
 After-hours service coverage for Lakes District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



- ◆ Accident and medical centre
- General practice
- ✚ Hospital
- ▲ Nurse
- Always available
- National parks
- Sometimes available
- Other
- Never available
- Lakes and ocean

MidCentral District Health Board

Description of the after-hours services

- 8.74 In Palmerston North, after-hours services were available from:
- an accident and medical centre open from 8am to 10pm, seven days a week;
 - an accident and medical centre open until 7pm on weeknights and from 9am to 6pm on weekends; and
 - Palmerston North Hospital's emergency department.
- 8.75 In the Tararua district, three general practices shared a roster to provide after-hours services at Dannevirke Community Hospital until 9pm on weeknights, to be on call from 9pm to 11pm on weeknights, and to provide clinics on Saturday mornings.
- 8.76 Four general practices in Feilding shared a roster to provide Saturday morning clinics.
- 8.77 Eight general practices (six in Levin, one in Shannon, and one in Foxton) shared an on-call roster until 8pm, seven nights a week.
- 8.78 A general practice in Otaki provided after-hours services until 11pm.

Availability of after-hours services within 60 minutes' drive

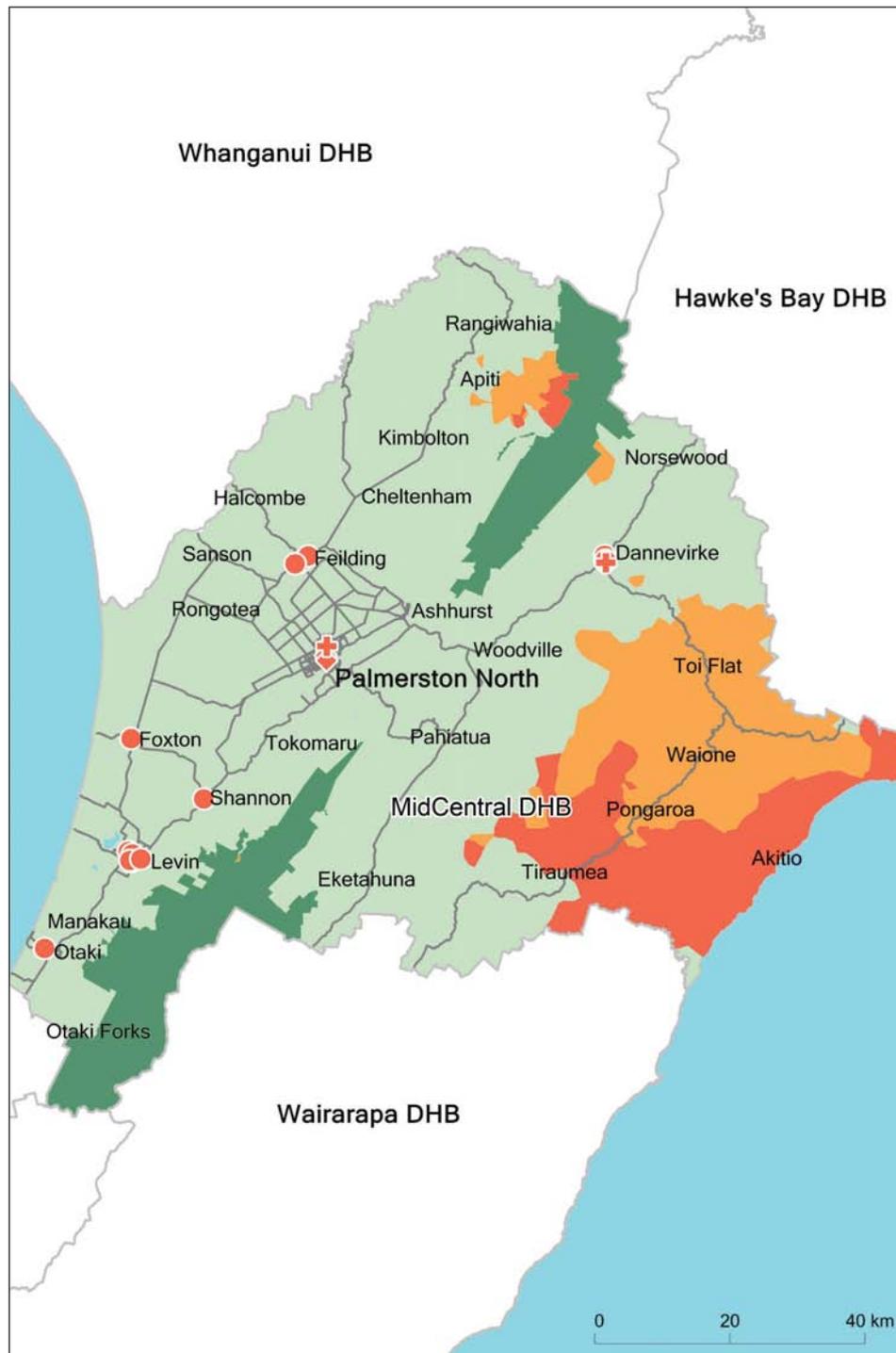
- 8.79 MidCentral DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.80 Figure 28 sets out the percentage of MidCentral DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the MidCentral DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the MidCentral DHB district.
- 8.81 Figure 29 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for MidCentral DHB's population – regardless of whether the service was within the MidCentral DHB district.

Figure 28
Statistics for the availability of after-hours services for MidCentral District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	158,808
% of DHB population always with after-hours services available within 60 minutes' drive	99.2%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	538

- 8.82 MidCentral DHB relied on some services outside its district to meet the expectation for geographic availability of after-hours services to 95% of its population within 60 minutes' drive. When these services were excluded from our modelling, 93.2% of MidCentral DHB's population could reach after-hours services within the district. This was mainly because, after 11pm, patients in Otaki had to travel outside the district to reach an after-hours service within 60 minutes. After that time, the closest services were in the neighbouring Capital and Coast DHB district.

Figure 29
After-hours service coverage for MidCentral District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



- ◆ Accident and medical centre
- + Hospital
- Always available
- Sometimes available
- Never available
- General practice
- ▲ Nurse
- National parks
- Lakes and ocean

Nelson Marlborough District Health Board

Description of the after-hours services

- 8.83 One general practice in Takaka and three general practices in Motueka provided after-hours services on an on-call basis.
- 8.84 In Murchison, nurses provided after-hours services from Murchison Community Hospital. They could phone a general practice for medical back-up.
- 8.85 In Nelson, a general practice provided after-hours services until 10pm on weekdays and from 8am to 10pm on weekends. After-hours services were also available at Nelson Hospital's emergency department.
- 8.86 In Blenheim, an after-hours service was open until 10pm on weeknights and from 8am to 10pm on weekends. This service was located within the hospital grounds. After-hours services were also available at Wairau Hospital's emergency department.

Availability of after-hours services within 60 minutes' drive

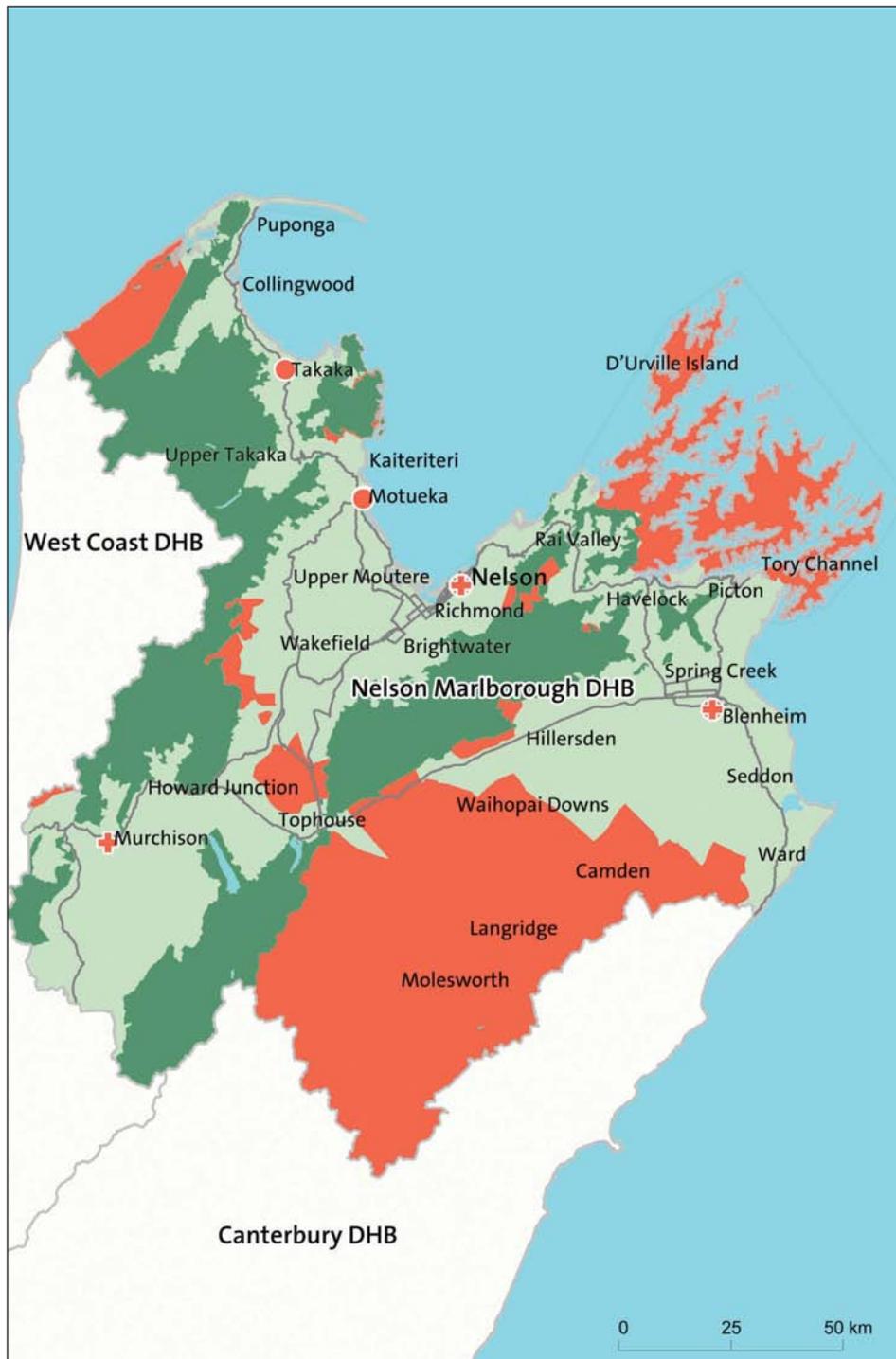
- 8.87 Nelson Marlborough DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.88 Figure 30 sets out the percentage of Nelson Marlborough DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Nelson Marlborough DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Nelson Marlborough DHB district.
- 8.89 Figure 31 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Nelson Marlborough DHB's population – regardless of whether the service was within the Nelson Marlborough DHB district.

Figure 30

Statistics for the availability of after-hours services for Nelson Marlborough District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	130,080
% of DHB population always with after-hours services available within 60 minutes' drive	99.0%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	1283

Figure 31
 After-hours service coverage for Nelson Marlborough District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



- ◆ Accident and medical centre
- General practice
- ⊕ Hospital
- ▲ Nurse
- Other
- Always available
- Sometimes available
- Never available
- National parks
- Lakes and ocean

Northland District Health Board

Description of the after-hours services

- 8.90 In the northern part of the district, after-hours services were provided on site at Kaitaia Hospital, from a general practice in Kaeo, and from a general practice in Te Kao with an on-call service.
- 8.91 In the central part of the district, after-hours services were available from:
- a hospital in Rawene;
 - two general practices in Kerikeri and one in Kaikohe that held Saturday morning clinics;
 - a group of general practitioners providing an after-hours service based at Bay of Islands Hospital;
 - a general practice in Russell; and
 - five practices (at Paihia, Kawakawa, and Moerewa) that shared a roster to provide Saturday morning clinics.
- 8.92 In Whangarei, an accident and medical centre provided after-hours services until 10pm on weekdays and from 8am to 10pm on weekends. A general practice in Hikurangi provided after-hours services. After-hours services were also available at Whangarei Hospital's emergency department.
- 8.93 In the southern part of the district, a general practice located near Dargaville Hospital provided after-hours services. General practices in Ruakaka and Waipu shared a roster for Saturday morning clinics.

Availability of after-hours services within 60 minutes' drive

- 8.94 Northland DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.95 Figure 32 sets out the percentage of Northland DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Northland DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Northland DHB district.
- 8.96 Figure 33 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Northland DHB's population – regardless of whether the service was within the Northland DHB district.

Figure 32
Statistics for the availability of after-hours services for Northland District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	148,437
% of DHB population always with after-hours services available within 60 minutes' drive	99.6%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	525

Figure 33
 After-hours service coverage for Northland District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



Otago District Health Board

Description of the after-hours services

- 8.97 In Dunedin:
- an accident and medical centre was open until 11.30pm on weeknights and from 8am to 11.30pm on weekends;
 - a general practice was open until 8pm on weeknights and held clinics on weekends; and
 - Dunedin Hospital's emergency department provided after-hours services overnight.
- 8.98 In Mosgiel, after-hours services were available from a general practice during the week between 5pm and 11.30pm.
- 8.99 In Palmerston, an on-call after-hours service was available from a general practice.
- 8.100 In the Clutha area:
- two general practices each provided on-call services during the week and shared a weekend roster for after-hours services;
 - one general practice provided on-call services overnight on weeknights and 24 hours a day on weekends; and
 - Clutha Health First, a community-owned integrated hospital and health centre, provided after-hours services by GPs until 9pm and by medical officers from 9pm to 9am, seven days a week.
- 8.101 In Central Otago:
- a general practice in Roxburgh provided an on-call service overnight and on weekends;
 - three general practices in Alexandra shared an on-call roster on weeknights and weekends;
 - two general practices in Cromwell provided overnight and weekend services through a mix of on-call services and clinics; and
 - one general practice in Ranfurly provided some on-call services.
- 8.102 In Oamaru, five general practices shared an on-call roster on weeknights and weekends. Waitaki District Health Services, a rural hospital in Oamaru, also provided after-hours services overnight and on weekends.
- 8.103 In Kurow, a general practice provided some after-hours services.
- 8.104 In Wanaka, two general practices provided after-hours services.

Availability of after-hours services within 60 minutes' drive

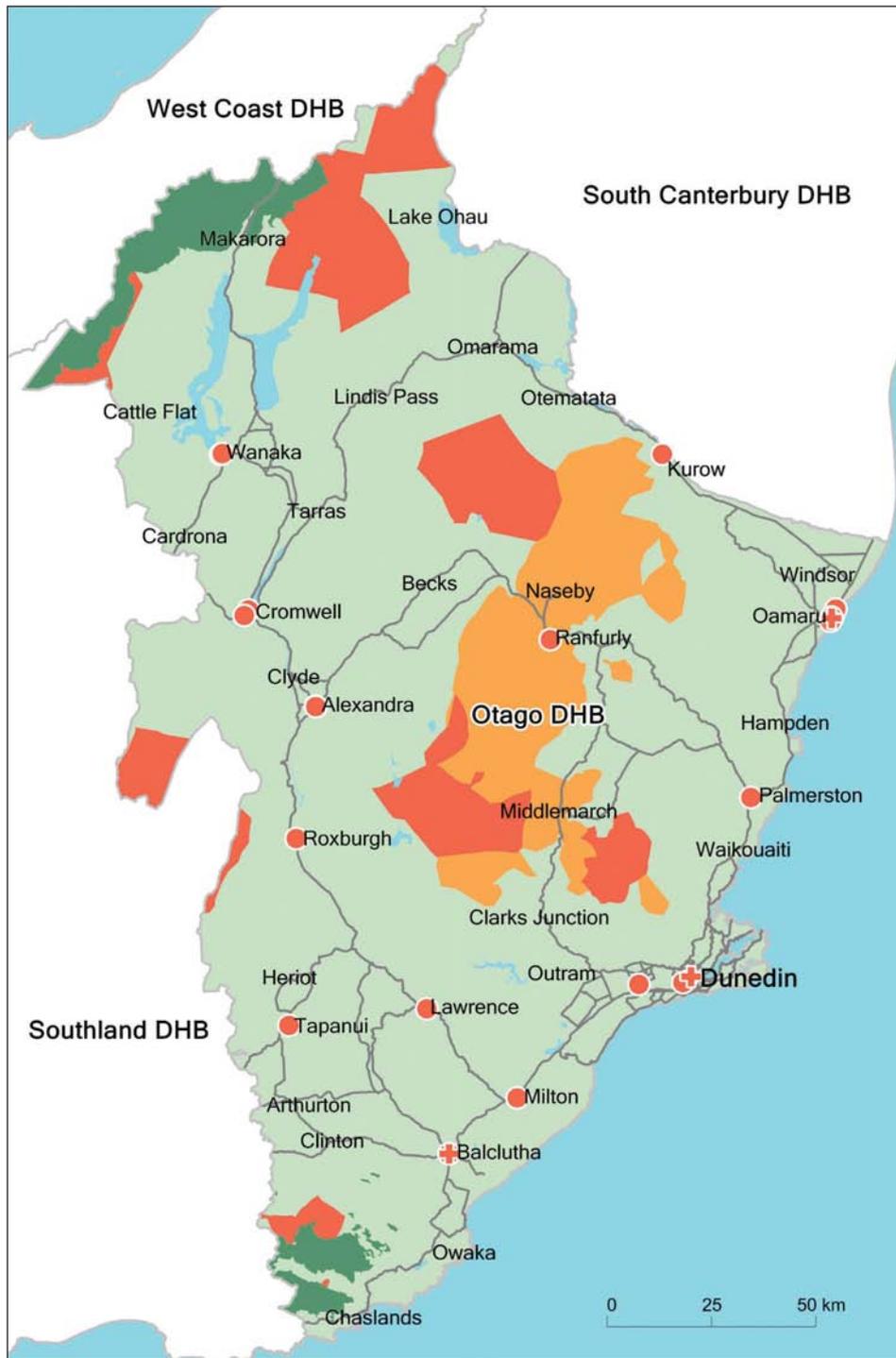
- 8.105 Otago DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.106 Figure 34 sets out the percentage of Otago DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Otago DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Otago DHB district.
- 8.107 Figure 35 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Otago DHB's population – regardless of whether the service was within the Otago DHB district.

Figure 34

Statistics for the availability of after-hours services for Otago District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	179,481
% of DHB population always with after-hours services available within 60 minutes' drive	99.0%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	80

Figure 35
 After-hours service coverage for Otago District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



◆ Accident and medical centre	⊕ Hospital	■ Always available	■ Sometimes available	■ Never available
● General practice	▲ Nurse	■ Other	■ National parks	■ Lakes and ocean

South Canterbury District Health Board

Description of the after-hours services

- 8.108 At the time of our audit fieldwork, after-hours services in Timaru were provided by an accident and medical centre and at Timaru Hospital's emergency department.
- 8.109 Five general practices in Geraldine and Temuka shared an on-call roster for after-hours services between 5pm and 8am five days a week. They shared a roster for 24-hours-a-day after-hours services on weekends.
- 8.110 At Pleasant Point, the local GP provided after-hours services when available, otherwise patients were directed to use the Timaru accident and medical centre.
- 8.111 In Waimate, two general practices provided after-hours services through a shared on-call roster.
- 8.112 A general practice in Fairlie and another in Twizel provided after-hours services on an on-call basis.

Availability of after-hours services within 60 minutes' drive

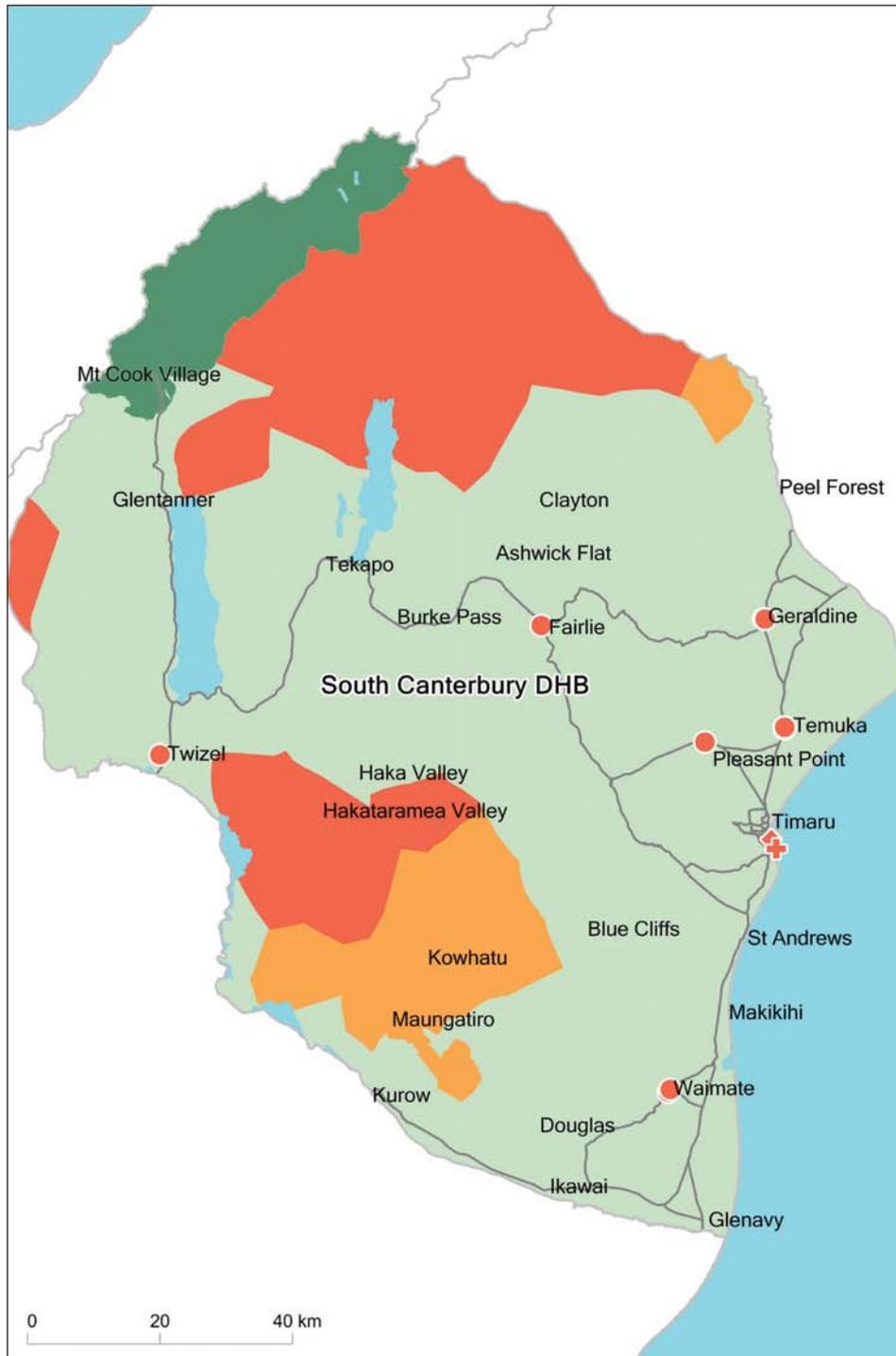
- 8.113 South Canterbury DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.114 Figure 36 sets out the percentage of South Canterbury DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the South Canterbury DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the South Canterbury DHB district.
- 8.115 Figure 37 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for South Canterbury DHB's population – regardless of whether the service was within the South Canterbury DHB district.

Figure 36

Statistics for the availability of after-hours services for South Canterbury District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	53,955
% of DHB population always with after-hours services available within 60 minutes' drive	99.6%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	93

Figure 37
 After-hours service coverage for South Canterbury District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



- ◆ Accident and medical centre + Hospital □ Always available □ Sometimes available □ Never available
- General practice ▲ Nurse ■ Other ■ National parks ■ Lakes and ocean

Southland District Health Board

Description of the after-hours services

- 8.116 In Invercargill, after-hours services were available at an accident and medical centre until 10pm on weeknights and from 8am to 10pm on weekends. After 10pm, patients were directed to Invercargill Hospital's emergency department.
- 8.117 In Queenstown, after-hours services were available from:
- a general practice until 8pm on weeknights and from 8am to 8pm on weekends;
 - a general practice in Frankton with an on-call service; and
 - the Lakes District Hospital's emergency department, which was open 24 hours a day, seven days a week.
- 8.118 In Te Anau, a general practice provided an on-call after-hours service.
- 8.119 In Gore, local GPs at the Gore After-Hours Medical Clinic in Gore Hospital provided after-hours services.
- 8.120 A GP in Lumsden was on call on weeknights, and was part of the roster to provide care in Gore on weekends. The GP told us that he receives reasonable roster funding to help with this work.
- 8.121 The general practices in Tuatapere, Riverton, and Otautau provided after-hours services through a shared on-call roster.
- 8.122 Rural nurses on Stewart Island and in Tokanui provided after-hours services to patients in their local area. Southland DHB noted that some patients in the Catlins were closer to, and were enrolled in, general practices in Balclutha, where after-hours services were available.

Availability of after-hours services within 60 minutes' drive

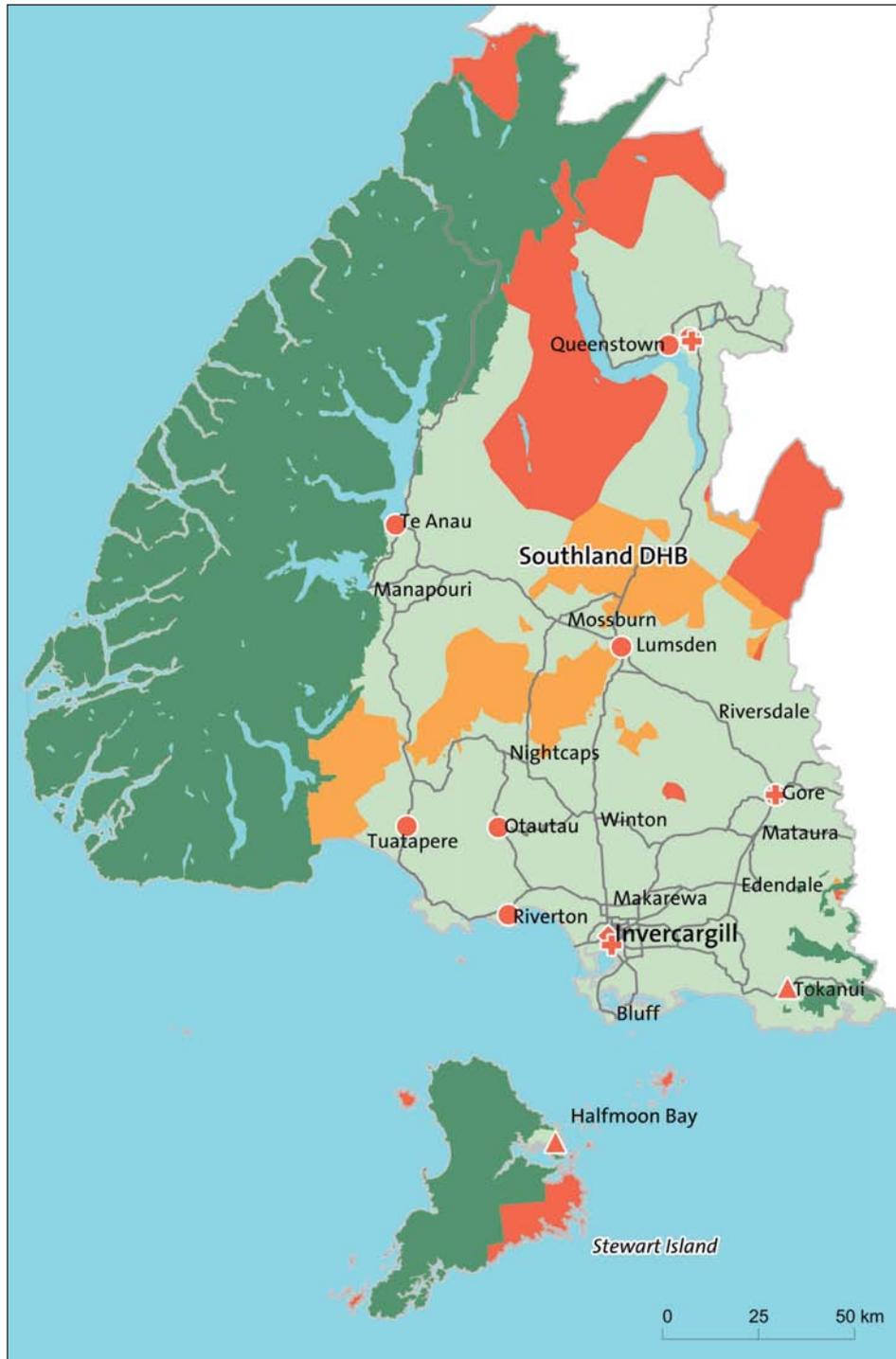
- 8.123 Southland DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.124 Figure 38 sets out the percentage of Southland DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Southland DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Southland DHB district.

- 8.125 Figure 39 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Southland DHB's population – regardless of whether the service was within the Southland DHB district.

Figure 38**Statistics for the availability of after-hours services for Southland District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)**

DHB population at the 2006 Census	106,767
% of DHB population always with after-hours services available within 60 minutes' drive	99.2%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	305

Figure 39
 After-hours service coverage for Southland District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



- ◆ Accident and medical centre + Hospital ■ Always available ■ Sometimes available ■ Never available
- General practice ▲ Nurse ■ Other ■ National parks ■ Lakes and ocean

Tairawhiti District Health Board

Description of the after-hours services

- 8.126 In Gisborne:
- five general practices shared a roster to provide after-hours services until 10pm on weeknights and from 8am to 10pm on weekends;
 - two general practices shared a roster until 10pm on weeknights and provided on-call services from 8am to 10pm on weekends;
 - one general practice provided on-call services until 8pm on weeknights and was open from 9am to 6pm on weekends; and
 - Gisborne Hospital's emergency department provided after-hours services overnight.
- 8.127 On the East Cape, an on-call GP roster operated at Te Puia Springs.

Availability of after-hours services within 60 minutes' drive

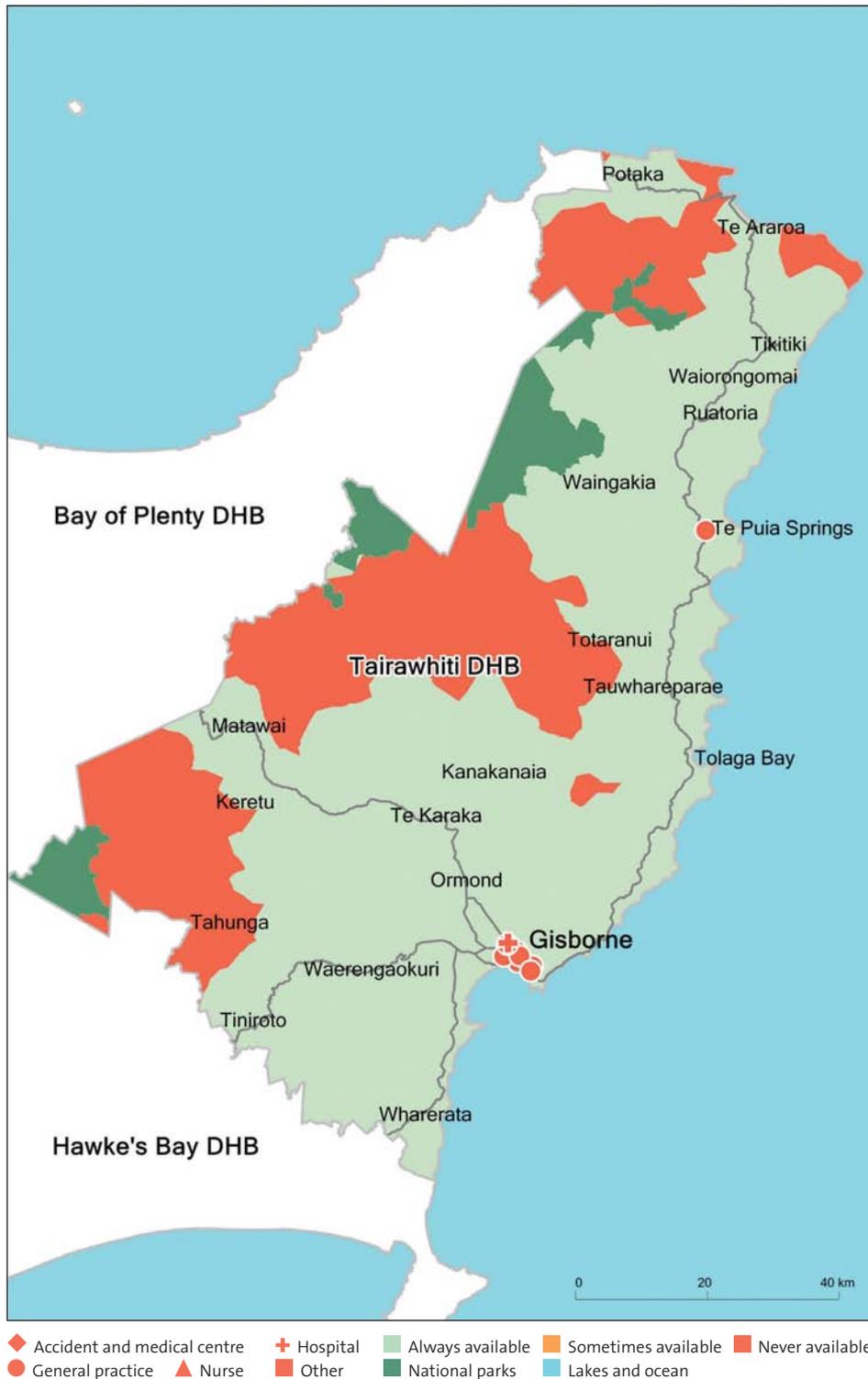
- 8.128 Tairawhiti DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.129 Figure 40 sets out the percentage of Tairawhiti DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Tairawhiti DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Tairawhiti DHB district.
- 8.130 Figure 41 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Tairawhiti DHB's population – regardless of whether the service was within the Tairawhiti DHB district.

Figure 40

Statistics for the availability of after-hours services for Tairawhiti District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	44,433
% of DHB population always with after-hours services available within 60 minutes' drive	98.2%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	783

Figure 41
 After-hours service coverage for Tairawhiti District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



Taranaki District Health Board

Description of the after-hours services

- 8.131 In New Plymouth, after-hours services were provided by:
- one accident and medical centre open until 8pm on weeknights, from 8am to 8pm on weekends, and on call overnight;
 - one accident and medical centre open until 8.30pm on weeknights and from 8.30am to 8.30pm on weekends;
 - a general practice open until 8pm on weeknights, and open for clinics on Saturday mornings; and
 - Taranaki Base Hospital's emergency department.
- 8.132 In Hawera, one general practice was open until 8pm from Monday to Thursday, and another general practice was on call overnight and on weekends. Hawera Hospital's emergency department was also open 24 hours a day, seven days a week.
- 8.133 General practices in Inglewood, Oakura, Opunake, and Eltham provided after-hours services on an on-call basis.
- 8.134 Three general practices in Stratford shared a roster to provide extended services until 7pm on weeknights and clinics on Saturday mornings.

Availability of after-hours services within 60 minutes' drive

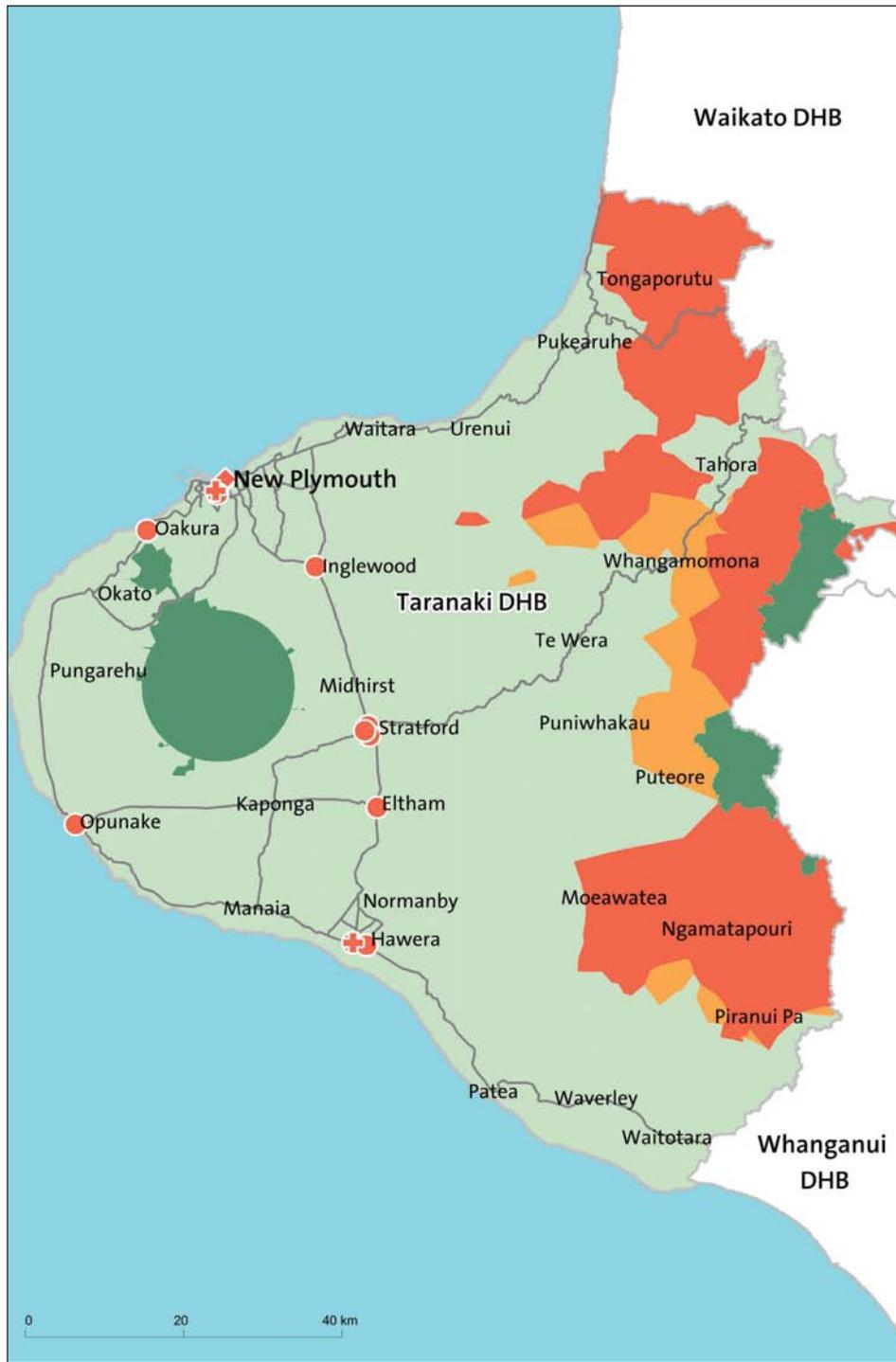
- 8.135 Taranaki DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.136 Figure 42 sets out the percentage of Taranaki DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Taranaki DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Taranaki DHB district.
- 8.137 Figure 43 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Taranaki DHB's population – regardless of whether the service was within the Taranaki DHB district.

Figure 42

Statistics for the availability of after-hours services for Taranaki District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	104,355
% of DHB population always with after-hours services available within 60 minutes' drive	99.7%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	244

Figure 43
 After-hours service coverage for Taranaki District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



- ◆ Accident and medical centre + Hospital ■ Always available ■ Sometimes available ■ Never available
- General practice ▲ Nurse ■ Other ■ National parks ■ Lakes and ocean

Waikato District Health Board

Description of the after-hours services

- 8.138 In Hamilton, after-hours services were available from:
- four accident and medical centres – one open 24 hours a day, seven days a week; one open from 8am to 10pm, seven days a week; and two open from 8am to 8pm, seven days a week; and
 - Waikato Hospital's emergency department, which was open 24 hours a day, seven days a week.
- 8.139 In the Thames-Coromandel district, after-hours services were available from:
- Thames Hospital's emergency department, which was open 24 hours a day, seven days a week;
 - two general practices in Whitianga and one in Tairua, which shared a roster for after-hours services; and
 - general practices in Whangamata, Colville, and Coromandel.²⁶
- 8.140 Four general practices in Tokoroa and one in Putaruru shared a roster until 8pm on weeknights and from 9.30am to 12pm and from 6pm to 8pm on Saturdays and Sundays. Tokoroa Hospital's emergency department was also open 24 hours a day, seven days a week.
- 8.141 After-hours services in the rest of the district included:
- a general practice in Te Kuiti and Te Kuiti Hospital;
 - Taumarunui Hospital's emergency department; and
 - general practices in Kawhia and Matamata.

Availability of after-hours services within 60 minutes' drive

- 8.142 Waikato DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.143 Figure 44 sets out the percentage of Waikato DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Waikato DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Waikato DHB district.

²⁶ There is also a general practice in Waihi that shares an on-call after-hours roster with the neighbouring Waihi Beach general practice, which is in the Bay of Plenty DHB's district.

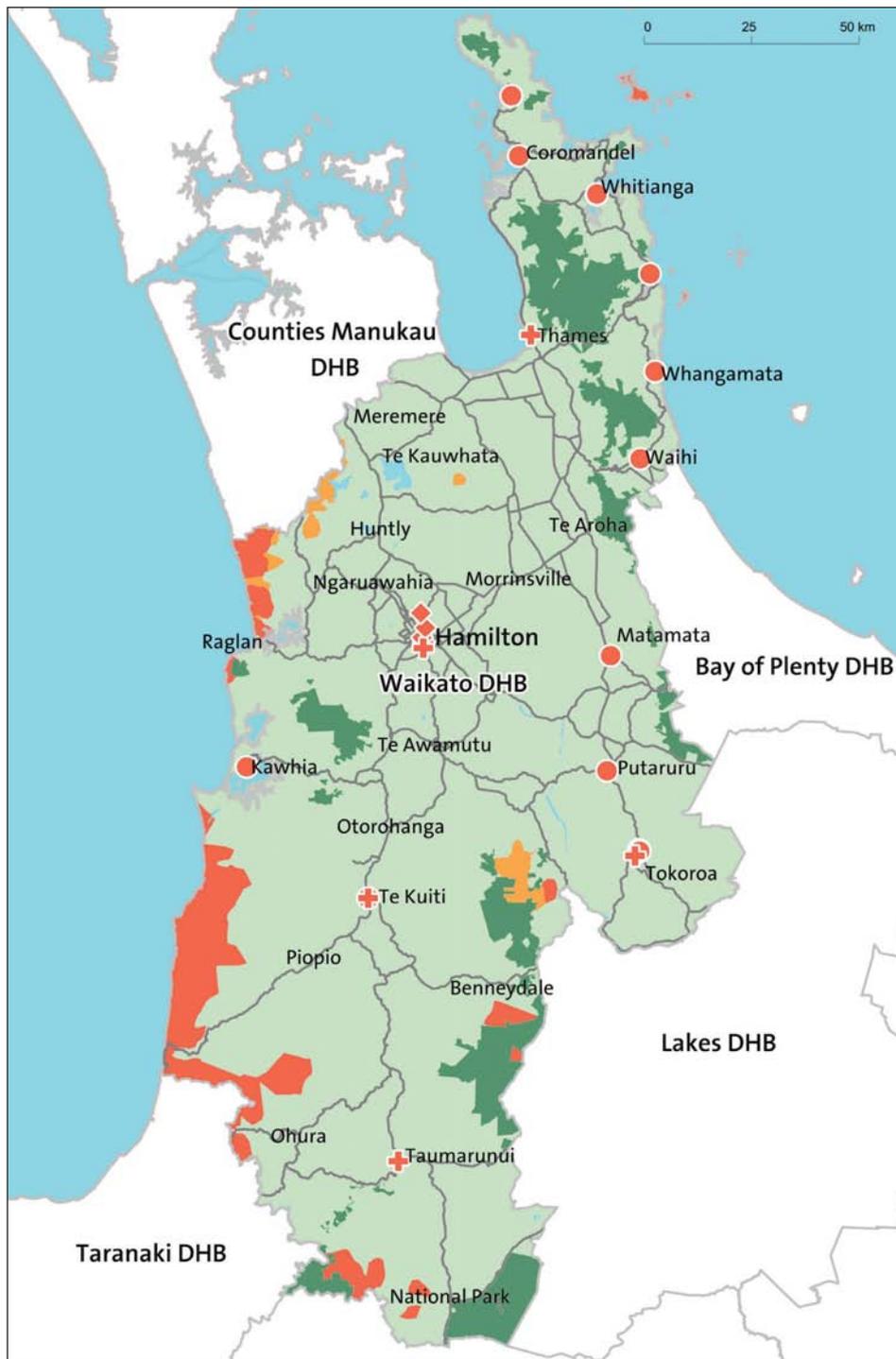
8.144 Figure 45 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Waikato DHB's population – regardless of whether the service was within the Waikato DHB district.

Figure 44

Statistics for the availability of after-hours services for Waikato District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	339,204
% of DHB population always with after-hours services available within 60 minutes' drive	99.7%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	664

Figure 45
 After-hours service coverage for Waikato District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



- ◆ Accident and medical centre
- ⊕ Hospital
- Always available
- Sometimes available
- Never available
- General practice
- ▲ Nurse
- Other
- National parks
- Lakes and ocean

Wairarapa District Health Board

Description of the after-hours services

- 8.145 In the Wairarapa, after-hours services were available from:
- six general practices that shared a roster to provide after-hours services;
 - another general practice;²⁷
 - two rural nurses; and
 - Wairarapa Hospital's emergency department in Masterton.

Availability of after-hours services within 60 minutes' drive

- 8.146 Wairarapa DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.147 Figure 46 sets out the percentage of Wairarapa DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Wairarapa DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Wairarapa DHB district.
- 8.148 Figure 47 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Wairarapa DHB's population – regardless of whether the service was within the Wairarapa DHB district.

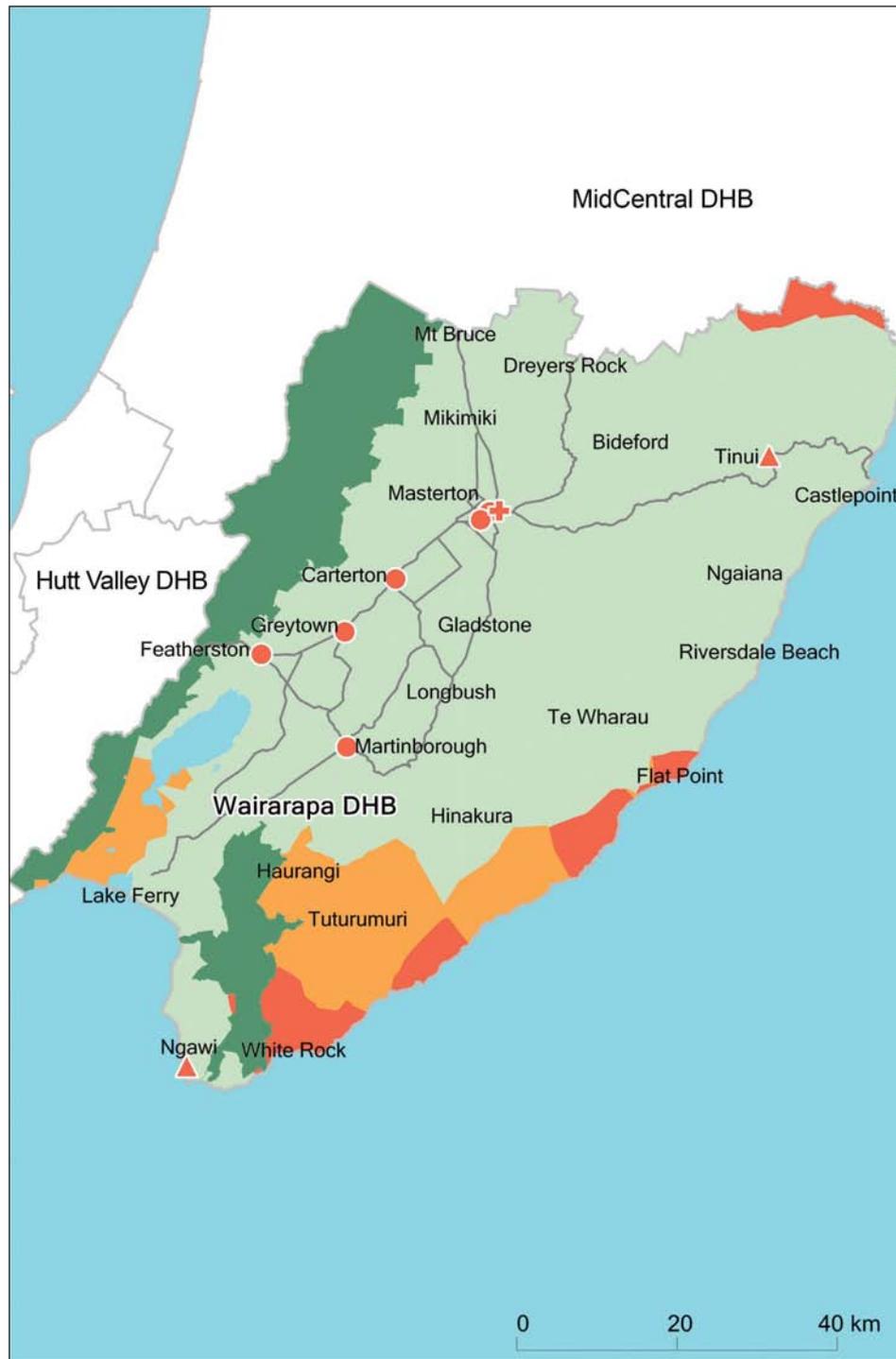
Figure 46

Statistics for the availability of after-hours services for Wairarapa District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	38,607
% of DHB population always with after-hours services available within 60 minutes' drive	99.1%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	81

²⁷ Wairarapa DHB told us that, since our audit fieldwork, the seven general practices now participate in the same roster.

Figure 47
 After-hours service coverage for Wairarapa District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



- ◆ Accident and medical centre + Hospital ■ Always available ■ Sometimes available ■ Never available
- General practice ▲ Nurse ■ Other ■ National parks ■ Lakes and ocean

Waitemata District Health Board

Description of the after-hours services

- 8.149 On the North Shore, after-hours services were available from:
- an accident and medical centre and a general practice in Albany that were each open until 8pm on weeknights and from 8am to 8pm on weekends;
 - an accident and medical centre in Milford that was open 24 hours a day, seven days a week;
 - an accident and medical centre in Browns Bay that was open until 10pm on weeknights and from 8am to 10pm on weekends;
 - two general practices with Saturday morning clinics; and
 - North Shore Hospital's emergency care centre, which was open 24 hours a day, seven days a week.
- 8.150 In the Waitakere district, after-hours services were available from:
- a general practice in Massey that was open until 8pm on weeknights and on Saturday mornings;
 - two general practices in New Lynn (one was open until 8pm on weeknights and from 9am to 3pm on weekends; the other had clinics on Saturday and Sunday mornings);
 - four general practices in Henderson (three were open for various hours on weeknights, two had clinics on Saturday mornings, and one had clinics on Saturday and Sunday mornings);
 - an accident and medical centre in Henderson that was open 24 hours a day, seven days a week;
 - a general practice in Titirangi that provided an on-call after-hours service at weekends; and
 - Waitakere Hospital's emergency care centre, which was open from 8am to 10pm, seven days a week.
- 8.151 In the Rodney district, after-hours services were available from:
- an accident and medical centre in Wellsford that was open until 8pm on weeknights and from 8am to 8pm on weekends, with on-call services available overnight;
 - an accident and medical centre in Whangaparaoa that was open until 8pm on weeknights and from 8am to 8pm on weekends;
 - a general practice in Helensville that was open until 7.30pm or 8pm on weeknights and on Saturday mornings; and

- two general practices in Kumeu, another practice in Waimauku, and another in Huapai that had clinics on Saturday mornings.

Availability of after-hours services within 60 minutes' drive

- 8.152 Waitemata DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.153 Figure 48 sets out the percentage of Waitemata DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Waitemata DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Waitemata DHB district.
- 8.154 Figure 49 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Waitemata DHB's population – regardless of whether the service was within the Waitemata DHB district.

Figure 48

Statistics for the availability of after-hours services for Waitemata District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	481,852
% of DHB population always with after-hours services available within 60 minutes' drive	99.9%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	81

Figure 49
After-hours service coverage for Waitemata District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



West Coast District Health Board

Description of the after-hours services

- 8.155 In the Grey district, three general practices in Greymouth shared an on-call roster to provide after-hours services until 8pm on weeknights and from 8am to 8pm on weekends. Outside of these hours, Grey Base Hospital's emergency department provided after-hours services. The Grey district was also served by a rural nurse clinic in Moana.
- 8.156 In the Buller district, a general practice in Westport provided on-call after-hours services and weekend clinics. From 8pm to 8am, Buller Health, an integrated health unit housing West Coast DHB services for Westport and Northern Buller, provided after-hours services. The Buller district was also served by two rural nurse clinics, one in Hector and one in Karamea. These services were usually, but not always, available – depending on roster arrangements.
- 8.157 In Reefton, patients could visit a nurse at Reefton Health Services (also known as Reefton Hospital) after-hours. The nurse could refer patients to a general practice with an on-call after-hours service.
- 8.158 In Westland, a general practice in Hokitika provided 24-hour, on-call after-hours services. Rural nurse clinics in Harihari, Whataroa, Franz Josef, Fox Glacier, and Haast also provided after-hours services.

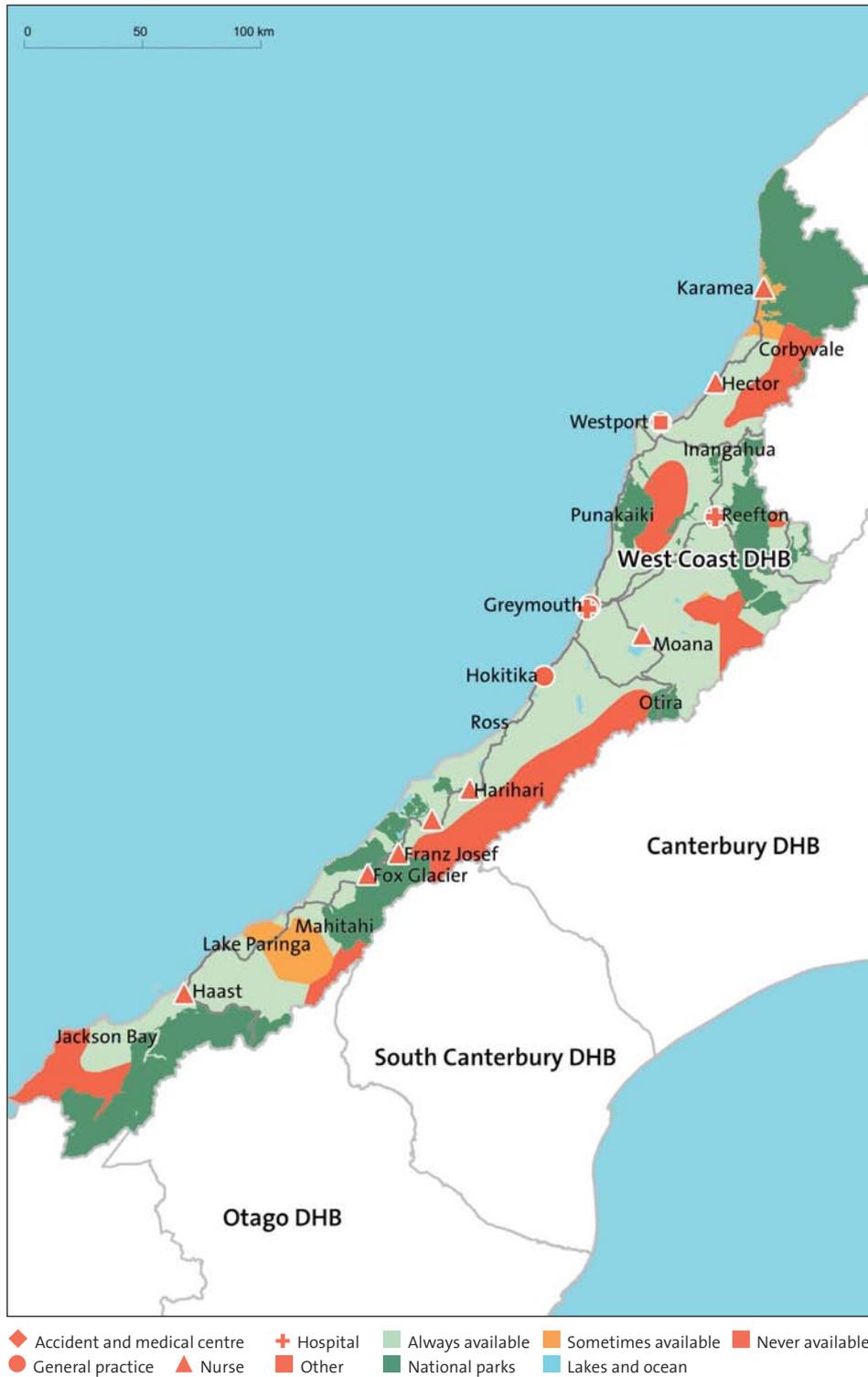
Availability of after-hours services within 60 minutes' drive

- 8.159 West Coast DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.160 Figure 50 sets out the percentage of West Coast DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the West Coast DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the West Coast DHB district.
- 8.161 Figure 51 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for West Coast DHB's population – regardless of whether the service was within the West Coast DHB district.

Figure 50
Statistics for the availability of after-hours services for West Coast District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	31,371
% of DHB population always with after-hours services available within 60 minutes' drive	97.9%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	35

Figure 51
 After-hours service coverage for West Coast District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



Whanganui District Health Board

Description of the after-hours services

- 8.162 In Whanganui, an accident and medical centre was open until 9pm on weeknights and from 8am to 9pm on weekends. It had an on-call GP available overnight. Alternatively, patients could also visit Whanganui Hospital's emergency department.
- 8.163 A general practice provided after-hours services in Taihape.
- 8.164 There were several roster arrangements to provide on-call services:
- between the military hospital and a general practice in Waiouru;
 - between general practices in Raetihi and Ohakune; and
 - between general practices in Marton and Bulls.

Availability of after-hours services within 60 minutes' drive

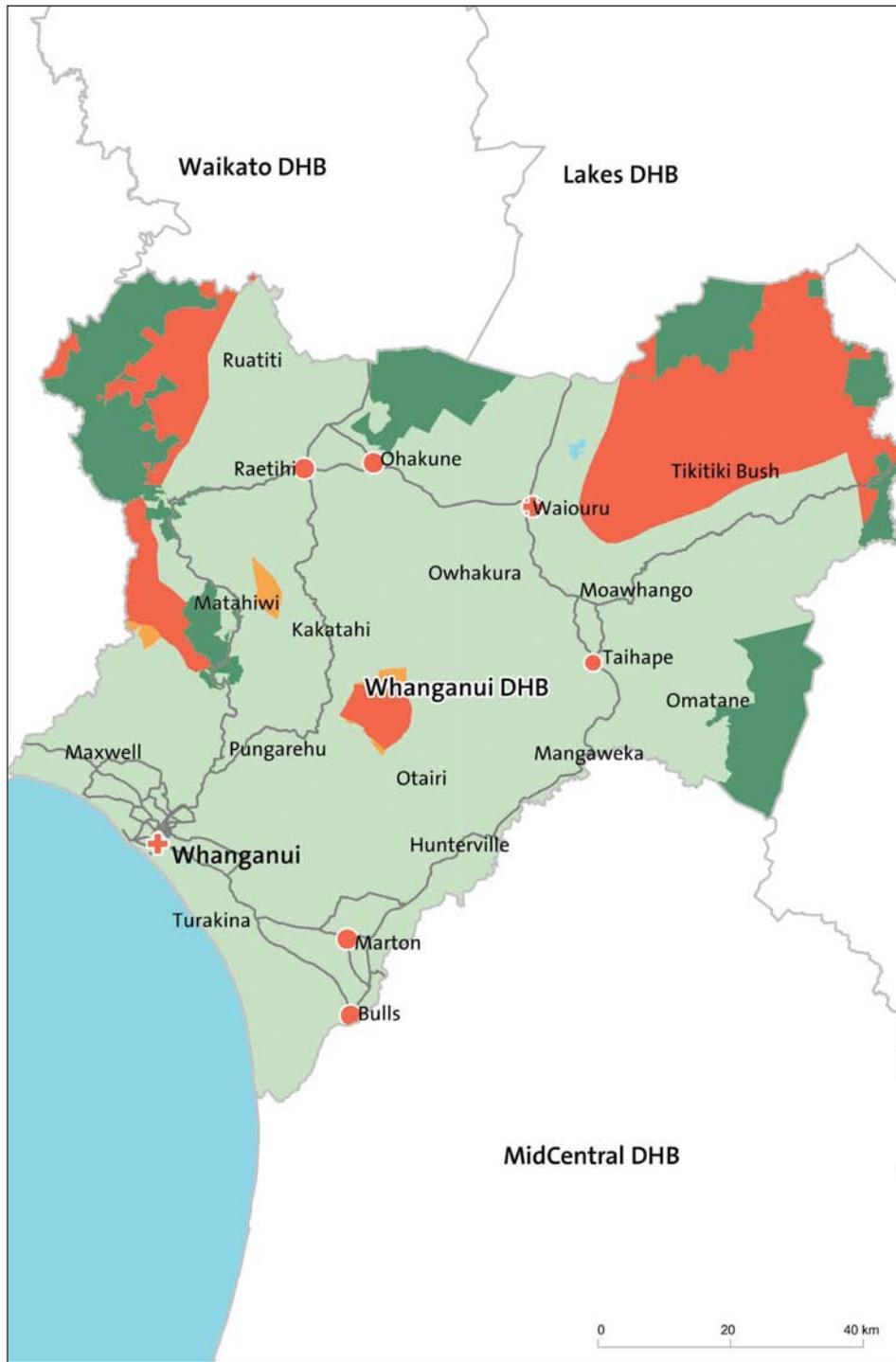
- 8.165 Whanganui DHB's after-hours plans met the Government's expectation for geographic availability of after-hours services.
- 8.166 Figure 52 sets out the percentage of Whanganui DHB's population that always had an after-hours service available within 60 minutes' drive and the number of people in the Whanganui DHB district who never had after-hours services available within 60 minutes' drive – regardless of whether the service was within the Whanganui DHB district.
- 8.167 Figure 53 shows where after-hours services were always available, were sometimes available, or were never available within 60 minutes' drive for Whanganui DHB's population – regardless of whether the service was within the Whanganui DHB district.

Figure 52

Statistics for the availability of after-hours services for Whanganui District Health Board's population (in a typical week, and regardless of whether the service was within the DHB's district)

DHB population at the 2006 Census	62,190
% of DHB population always with after-hours services available within 60 minutes' drive	99.9%
Number of people after-hours services were never available to within 60 minutes' drive – that is, the number of people living in the red areas on the map	53

Figure 53
 After-hours service coverage for Whanganui District Health Board (in a typical week, and regardless of whether the service was within the DHB's district)



- ◆ Accident and medical centre
- General practice
- ▲ Nurse
- ⊕ Hospital
- Other
- Always available
- Sometimes available
- Never available
- National parks
- Lakes and ocean

Appendix 1

About the geographical information system analysis

We used a geographical information system (GIS) to calculate the proportion of a district health board's population for which the district health board (DHB) had planned availability to an after-hours service within 60 minutes' drive.

We acknowledge the assistance of Critchlow Limited in carrying out the GIS analysis on our behalf.

A simplified summary of the analysis carried out for each DHB is:

1. identify the after-hours services that are available and when they are available – the source of this information was each DHB's after-hours plan and rural roster information requested through DHBs;
2. record the availability of after-hours services into time slots and days (21 different time and day slots) – the time slots were selected based on service use and common open and closing times;
3. obtain the physical addresses of the after-hours service providers – achieved using various online information sources and by telephone calls;
4. verify the information obtained in steps 1-3 with the DHB (all DHBs confirmed that the information was complete and accurate);
5. using a GIS, code each physical address to a corresponding geographical reference – such as latitude and longitude co-ordinates;
6. assume that people use the fastest route on the roading network to travel from their home to the nearest after-hours service regardless of whether the service is located inside or outside of a DHB's boundary and complete steps 7-10;
7. using a GIS, including the New Zealand roading network and information on actual average road travel speeds (based on 1,831,034 readings from vehicles), calculate the geographical area that has access to each after-hours provider within 60 minutes' drive – this was done for each time slot and day;
8. using a GIS, identify and map meshblocks (see Figure 8) into three categories using the information from step 7 – within 60 minutes' drive for all time slots and days, for some time slots and days, or for no time slots and days;
9. using a GIS (including meshblock, postal address, and census information), calculate the population of the meshblocks always within 60 minutes' drive (that is, for all time slots and days) – in urban areas the population of each meshblock is included when the centre of the meshblock falls within 60 minutes' drive, and in rural areas the population of a meshblock is included in proportion to the number of address points in the meshblock falling within 60 minutes' drive;

10. using 2006 Census information and the results from step 9, calculate the percentage of each DHB's population that is able to access after-hours services within 60 minutes' drive; and
11. run through steps 7-10 again, assuming that people use the fastest route in the roading network to travel from their home to the nearest after-hours service located inside a DHB's boundary.

A more detailed technical document outlining the information sources, assumptions, and analytical methodology is available on request. Readers interested in obtaining a copy can email their request to reports@oag.govt.nz.

Appendix 2

Funding arrangements

District health boards (DHBs) are responsible for planning, funding, and providing health and disability services within their districts in a manner that meets the Government's service coverage requirements. This includes planning, funding, and/or providing after-hours services.

DHBs have some influence over the type, number, and location of after-hours service providers, but there will be instances where these factors are determined by private business decisions made independently of the DHB.

Primary health organisations (PHOs) receive First Contact funding from DHBs. This is a form of bulk-funding also known as capitation-based funding. The PHO Service Agreement (attached to this funding) states that a PHO is responsible for providing:

*... 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. ... First Level Services must be available for 95% of your Enrolled Population during: ... the normal Business Day within 30 minutes travel time; and ... after hours within 60 minutes travel time.*²⁸

No specific amount of money is identified within the First Contact subsidy for providing after-hours services.

Providers of after-hours services may also receive funding through other funding streams. These include the General Medical Subsidy for some casual patients, a rural primary health care premium, and Accident Compensation Corporation payments. We refer readers to the work of the After Hours Primary Health Care Working Party and our report on the Primary Health Care Strategy for specific information about other funding sources.²⁹

Additional funding for providers also comes from co-payments paid directly by patients.

PHOs may set up arrangements with their provider members to deliver after-hours services and/or they may subcontract with other providers to deliver these services. If a PHO subcontracts a service, it is required to notify the DHB of this. PHOs must not knowingly be a party to any arrangement that results in a DHB paying more than once for the same service.

²⁸ DHB PHO agreement [template], Version 18, 17 December 2008, page 82.

²⁹ After Hours Primary Health Care Working Party (July 2005), *Towards Accessible, Effective and Resilient After Hours Primary Health Care Services: Report of the After Hours Primary Health Care Working Party*, Ministry of Health, Wellington, page 15; Controller and Auditor-General (October 2008), *Ministry of Health: Monitoring the progress of the Primary Health Care Strategy*, Wellington, Appendix 4.

For general medical services provided outside PHO agreements, the Government subsidises the cost of access for certain people. General practices are required to reduce any fee they would otherwise charge these patients by at least the amount of the subsidy.³⁰

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