

Rural Health Strategy



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1. OVERVIEW

1.1 Background

MidCentral District Health Board (MidCentral) is responsible for the planning and funding of health and disability services to meet the health needs of the 158,000 people who live within its boundary. Provision of accessible and appropriate services for people living in rural areas is one of the five service delivery priority areas identified in the New Zealand Health Strategy (2000, p22). Given that the MidCentral district has a relatively high rural population (34%)—more than twice the national rate—its District Strategic Plan 2005-2015 highlights rural health as one of the main priority issues.

Over the past five years MidCentral has progressed a number of health strategies that include a focus on improving access to health services for rural consumers. These are:

- Primary Health Care Strategy
- Oranga Pumau: Maori Health Strategy
- Secondary Care Services Strategy
- Child Health Strategy
- Ageing in MidCentral—Health of Older People Strategy
- Mental Health and Addiction Services Strategy
- Referred Services Management Strategy
- Youth Health Strategy
- Maternity Services Strategy.

The implementation of these strategies has provided an ideal opportunity for MidCentral to develop this Rural Health Strategy.

1.2 Purpose

The purpose of the Rural Health Strategy 2010-2015 is to provide guidance and direction for health service development to ensure consideration is given and strategies enacted that enable reasonable access to health services for those living in rural areas within the MidCentral district.

1.3 Strategic alignment

This strategy aligns with the:

- New Zealand Health Strategy
- Primary Health Care Strategy
- MidCentral District Strategic Plan 2005– 2015
- 2008/09 MidCentral District Annual Plan
- MidCentral's health service strategies and plans.

1.4 Specific alignment with the Primary Health Care Strategy

In 2004, MidCentral launched its Primary Health Care Strategy, based on the framework provided by the New Zealand Primary Health Care Strategy (2001), which

set out to achieve improved health outcomes for its population through primary health care.

Collation and analysis of information and data for this rural health strategy is framed by the NZ primary health care strategy and its six key goals of:

- improving access to primary health care services
- increasing community participation in shaping primary health care
- increasing service coordination from the perspective of the patient
- developing a planned infrastructure for primary health services
- more integration between primary and secondary services from the perspective of the patient
- ensuring quality health care.

2. INTRODUCTION

2.1 Rural communities in New Zealand

Historically, rural communities were identified primarily as those consisting of less than 1,000 people. In recognising the shift to ‘peri-urban’ living—where urban workers live more rurally in ‘life style farming units’ (Fraser, J., & New Zealand National Advisory Committee on Health and Disability, 2006 p10)—Statistics New Zealand reclassified the urban and rural categories as described below.

Table 1. Statistics New Zealand Population Classifications (2006)

URBAN CATEGORY	RURAL CATEGORY
Main urban areas	Rural area of high urban influence
Satellite urban community	Rural area of moderate urban influence
Independent urban community	Rural area with low urban influence
	Highly rural/remote area

More information on New Zealand’s rural communities is set out in Appendix 1.

2.2 Rural communities in the MidCentral district

Using this Statistics New Zealand definition of ‘rural’, the majority of the MidCentral district outside of Palmerston North could be defined as rural.

MidCentral district includes the territorial authority (TA) areas of:

- Palmerston North—includes Palmerston North city
- Manawatu—includes the town of Feilding which services the rural north eastern part of the district
- Tararua—includes the towns of Dannevirke, Pahiatua and Eketahuna which service the rural western localities
- Horowhenua—includes the towns of Levin, Foxton and Shannon which service the rural areas south of Palmerston North
- The Otaki ward of Kapiti Coast—includes the town of Otaki.



For the purposes of this strategy, the following populations have been identified as rural:

- Manawatu TA excluding Feilding (2006 population 12,924)
- Horowhenua TA excluding Levin (2006 population 15,507)
- Tararua TA (2006 population 17,634)
- The Otaki ward of Kapiti Coast TA, (2006 population 7,000).

In total, this classifies 33% of the DHB population as rural. If the towns of Otaki and Dannevirke were excluded, the rate falls by 13,648 to 25%, which is still a high rural population compared with the national average of 14.2%.

2.3 Summary of key features of MidCentral's rural areas

Each of the rural TA populations has their own unique population characteristics. Otaki and Horowhenua share some similarities: higher Maori representation in the population, significant levels of social deprivation, and an age group pattern consisting of a higher proportion of people aged over 65 years and a lower proportion of people aged under 25—when compared with the proportions in the total DHB population. Differences for people living in the Horowhenua include increased hospitalisations and increased mortalities than for the total DHB population. Otaki had lower rates of hospitalisation and mortality than for the total DHB.

Manawatu TA shared similarities with the urban Palmerston North TA population, having a lower representation of Maori, higher proportion of under 25 year olds and a lower proportion aged under 65 years compared with the other TA populations. They also have less socially deprived communities and appeared to have a healthier population with less hospitalisations and average mortality levels.

Tararua TA had a higher proportion of Maori in its population, and the population as a whole had less social deprivation and the age distributions were similar to the

Manawatu TA. They had slightly higher hospital admissions for respiratory conditions and a significantly high level of admissions for accidents. Their mortality rates were similar to the DHB as a whole.

Geography also plays a key part in defining the rural populations and shaping access to health services. Palmerston North—where the base secondary care hospital and services are—is centrally located within the district, with most of the main towns in each of the TA regions about an equidistant 30-45 minutes travel on well maintained roads from this centre.

Palmerston North is the main city within the MidCentral district and it is not unusual for rural people to incorporate a hospital, specialist or GP visit in Palmerston North with undertaking other errands, business or shopping.

More information on the geosocial, population and social deprivation features, and the health status of MidCentral's rural territorial authorities is detailed in Appendix 2.

3. SERVICE PROVISION

3.1 Primary Health Services

Primary health care includes a wide range of community, primary, hospital and home based health services. Each year a summary of services funded by MidCentral is included in its district annual plan (by type and district). A list of DHB and Ministry of Health funded community services within the district is provided in Appendix 3.

Services are provided by a variety of ways including the nine described below.

3.1.1 Primary Health Organisations (PHO)

Within the MidCentral district there are four PHOs, each funding a variety of primary health services within their respective TA boundaries. They are:

- Manawatu PHO—covers Manawatu TA and Palmerston North TA, where the main office is located.
- Horowhenua PHO—has its main office located in MidCentral Health’s Horowhenua Health Centre in Levin.
- Otaki PHO—covers the Otaki ward of Kapiti Coast TA, with its main office in Otaki.
- Tararua PHO—has its main office in Pahiatua.

The PHOs manage funding for general practices and most of their services are coordinated around, or out of, general practices.

3.1.2 Community Hospitals/Health Centres

These are located in Dannevirke (Dannevirke Community Hospital) and Levin (Horowhenua Health Centre), both of which provide inpatient and maternity beds as well as a variety of outpatient services.

3.1.3 MidCentral Health

MidCentral Health (MCH) provides outpatient and specialist referral services in rural communities, but predominantly at Horowhenua Health Centre and Dannevirke Community Hospital. MCH also provides district nursing and public health nursing services.

3.1.4 Maori Health Providers

The Maori health providers are:

- Te Runanga O Raukawa provides a range of health services mainly in the Manawatu and Horowhenua TA regions.
- Whakapai Hauora provides health services in Palmerston North and between the Waikanae and Rangitikei Rivers.
- Rangitane Tamaki Nui a Rua mainly provides health services in the Tararua TA region.
- Te Wakahuia Manawatu Trust provides services mainly in the Manawatu TA area.

- He Puna Hauora provides services in Palmerston North and Dannevirke.

3.1.5 Community Pharmacies

Community pharmacy services are provided through pharmacies in Otaki (2), Levin (6), Foxton (2), Feilding (3), Dannevirke (2), Pahiatua (1), and Palmerston North (19). DHB contracted services provided are largely dispensing based, though Medicines Use Review services (to enhance patient understanding of and adherence to their medicines) are being piloted in nine pharmacies across the MidCentral district.

3.1.6 Maternity Services Providers

Almost all maternity services are provided by midwives, and there are inpatient primary maternity beds in Dannevirke and the Horowhenua Health Centre.

3.1.7 Mental Health Service Providers

- MidCentral Health provides outpatient services to the Horowhenua TA region and, to the Tararua region, out of its Pahiatua base.
- Iwi and Maori providers offer services within their communities.
- MASH Trust is a key provider to consumers in rural areas.
- PHOs offer primary mental health services within community settings.

3.1.8 Child Health Providers

Plunket and Maori providers employ nurses to provide services in community clinics and in homes.

3.1.9 Community Health Providers

- Foxton Community Health Centre.
- Eketahuna Health Centre.

3.2 Secondary Care Services

MidCentral Health—through Palmerston North hospital—provides secondary care services including emergency and after hours services (from 11pm to 8am) for all TA populations in the MidCentral district. It also provides specialist outpatient services at Dannevirke Community Hospital and Horowhenua Health Centre.

4. CHALLENGES IN DELIVERING HEALTH SERVICES TO THOSE LIVING RURALLY

This chapter discusses feedback on the challenges of health service delivery in rural areas and provides some information about the status of health services.

The main challenges identified and described below, are:

- access to services
- community participation
- service coordination
- infrastructure development
- integration between primary and secondary care
- quality health services.

4.1 Access to services

4.1.1 Transport to health services and parking at Palmerston North Hospital

People in rural areas consider transport to and from health services as an ongoing and key issue, due primarily to the lack of public transport. Patients living in the Horowhenua and Otaki TA regions and on the Dannevirke to Palmerston North route have increased access to health transport as a result of recent DHB, PHO, St John's and community initiatives. However, these services are not generally available after hours and on weekends. Those in the northern and eastern Manawatu TA and in southern Tararua TA still experience transport difficulties, although St John's have recently developed solutions for the southern Tararua. Ambulance services, which are nationally funded, provide transport to hospital for those who have no other means of travel; however, there are costs to the consumer for use of this service. A lack of access to parking at Palmerston North hospital is also seen as an important issue to be addressed with people referring to long waiting times to get parking, as well as having to park far from the hospital. This is seen as particularly difficult for older, injured or disabled people.

4.1.2 Information on local service availability

People report that there is a lack of information about the services available rurally and how the services relate to each other. Some PHOs have pamphlets with information for consumers about available services and advertise locally. The DHB has established five Primary Maternity Support Information and Advisory Services (one in each TA region) to provide local women with information on how to access maternity services. Currently the website www.centralhealth.org.nz contains lists of health service providers for the whole of the MidCentral district.

4.1.3 Health advice

Access to effective and timely health advice is seen as very important by people living rurally and such access can be an issue given the lack of transport and phone access. Health advice is often sought from community pharmacists, who provide triage and assistance with self management where possible, or refer people to general practice services.

The nationally funded Healthline and PlunketLine services are available to rural communities, but it does not seem to have been promoted to those in the MidCentral district. There are also issues with regard to telephone line reliability in some rural areas that impact on people's ability to make health related and emergency phone calls.

Local on call and nurse triage arrangements appear to be preferred by health providers—this is where a local nurse responds to a call and provides advice on who further to ring or visit for after hours care.

4.1.4 Availability of services

People prefer to have their health services delivered to them in their own communities and if possible by providers that are based in their communities. However, it is well recognised that the ability of health services to provide services to people living rurally is limited by a number of factors including the level of resourcing available.

The use of Palmerston North as a health service base by the mobile or urban employed rural population may pose challenges for locally based health services and providers including:

- less routine use of locally based health services by the more affluent and mobile rural dwellers
- less viability of local rural health services by rurally domiciled urban workers
- a lack of knowledge of services that are available locally in an emergency
- less community support for the maintenance of locally based services
- less enthusiasm for local service development and innovative activities
- rural health workforce retention issues.

At weekends and after 5:30pm on weekdays, Horowhenua Health Centre is accessible only to inpatients and those with an outpatient appointment. Consumers requiring medical advice or attention out of normal hours must call or visit the local after hours medical service or Palmerston North Hospital (PNH) emergency department (ED).

Currently, the inpatient and outpatient services at Horowhenua Health Centre are managed by a number of different MidCentral Health managers all located at Palmerston North hospital. Other services such as radiology, laboratory and pharmacy are contracted out to different providers. Horowhenua PHO also provides services. Consequently, local coordination of services at this health centre is an ongoing challenge, and makes the responsiveness of the services to local needs more complex.

In all rural areas, after hours access is restricted from 11pm. Patients are required to attend Palmerston North emergency department between 11pm and 8am.

The following table provides a brief outline of the services in place in each PHO area based on a stocktake of services undertaken in November 2006.

Table 2. After Hours Services in the Rural TA Regions

	5pm to 11pm	11pm to 8am
Tararua	Rostered GPs Some scheduled clinics Local nurse triage (telephone and some drop in)	Local nurse triage (telephone and some drop in) ED cover from PNH
Manawatu	Feilding Rostered GPs	ED cover from PNH
	Palmerston North Accident and medical (A&M)— City Doctors, until 10pm A&M Radius Medical, until 9pm Radius Medical telephone 9-11pm	ED cover from PNH
Horowhenua	Rostered GPs	ED cover from PNH
Otaki	Rostered GPs Kapiti Medical A&M	Kapiti Medical A&M ED cover from PNH

(MidCentral DHB After Hours Plan, January 2008)

The cost of accessing after hours services is of concern to those rural patients who live a distance from Palmerston North Hospital. Patients are charged a copayment of \$45 for travel by ambulance to ED and approximately \$100 if discharged by ED and need ambulance transport home. Often patients are not aware of these fees at the time of calling an ambulance or at the time of accepting ED staff advice to have ambulance transport home.

Access to medicines after hours is restricted to one pharmacy in Palmerston North that provides extended hours dispensing services.

Table 3 below demonstrates the variance in use of ED between TA populations. While those domiciled in Palmerston North used the service the most per head of population, Horowhenua residents were more than twice as likely to be admitted and more than one third of Otaki patients were admitted. Tararua residents also had high admission rates.

Table 3. Use of Emergency Department at Palmerston North Hospital by TA in December 2006

TA residence of patient	Total number of visits	% admitted	% not admitted	Total population 2006 Census	Proportion (%) accessing ED at PN Hospital
Palmerston North City	4614	15.71	84.29	72,069	6.40
Horowhenua District	1194	32.24	67.76	28,254	4.23
Manawatu District	956	19.14	80.86	28,254	3.38
Tararua District	512	30.27	69.73	17,634	2.90
Otaki ward of Kapiti Coast District	169	34.91	65.09	7,000	2.41

4.2 Community participation

People living rurally want to ensure that there is adequate rural representation at all levels of the DHB. While there appears to be a comprehensive web of community consultation throughout the MidCentral district it is imperative that these mechanisms are built on and strengthened over time to allow for a strong rural presence in health fora. Processes have been built into each of the DHB strategies and service plans, and PHOs have established community boards that contribute feedback on their services on a monthly or two monthly basis.

4.3 Service coordination

Rural people considered that while there have been important gains made through the recent investments in primary care, funding for health services is still relatively siloed. There has been encouragement of vertical integration of services from secondary to primary care within disciplines or disease types, but there has not been a great deal of progress of integration at provider level (horizontal integration) which is more of a challenge. The two community based hospitals/health centres and the PHOs are in a good position to facilitate more horizontal integration within their regions.

Dannevirke Community Hospital does demonstrate good integration for the community in Dannevirke, but could broaden their consumer base to include those in other parts of the Tararua in conjunction or partnership with the local PHO.

The Horowhenua Health Centre appears to provide less service integration at community level. While local medical practices and the PHO have recently moved on site, the hospital inpatient and outpatient services continue to be managed by various managers located in Palmerston North. The appointment of a site co-ordinator signals the intent to achieve a more responsive service for the community.

It appears that the effectiveness of the integration of Maori health service providers and other health services in rural areas varies from region to region. There seems to be more effort recently in developing an interface between providers such as GPs, nurses, midwives and community health providers. Processes are being established by PHOs and the DHB to enable each provider to know what services others are delivering.

A working model of the primary and secondary interface in rural areas is evident in such activities as the surgical bus and specialist outreach services. It is not possible nor is it a realistic expectation that these services can be available in all rural areas; however, they are closer to the majority of rural consumers than if located only in Palmerston North.

Nursing services in rural areas were less visible, and not all of them seem to have their service objectives aligned. MidCentral Health provides public and mental health and district nursing services for rural communities. These services appear to work in isolation from locally based health services and from the PHO primary nursing services which include a mobile service to reach the more isolated rural communities. At a personal nurse to nurse level, it appears there is informal communication and connection—particularly evident following the implementation of the Primary Nursing Professional Development Plan.

Access to emergency services for rurally remote communities has been of concern particularly for those living in the north eastern and east coast parts of the DHB region. This issue was addressed in Southland through a partnership between Civil Defence, St John's, the local DHB and those living in remote rural communities where it took longer than 20 minutes to reach by ambulance. The concept of 'Community First Response' emerged out of this collaboration. Community first response provides the first point of contact with the patient and provides first aid until the ambulance arrives.

4.4 Infrastructure development

4.4.1 Health workforce recruitment

The difficulty of attracting and retaining the health workforce in rural areas was seen as a major challenge by rural people. This workforce includes all registered occupations such as doctors, nurses, physiotherapists, occupational therapists, psychologists and pharmacists as well as the unregistered occupations such as community workers and support workers.

Medical practitioners have been the most difficult to recruit to rural areas, while nurses less difficult. Specialist health professionals such as pharmacists, dieticians and physiotherapists, have also been difficult to recruit. The Horowhenua TA region appears to have the most acute shortage of GPs. Recruitment of GPs into rural areas is being supported throughout the MidCentral district through a number of strategies:

- Dannevirke Health Services has introduced a Rural Immersion Programme for 5th year medical students
- MidCentral has approved a programme to encourage GPs to take on GP trainer roles and attract GP registrars to work in the district.

The Ministry of Health has developed a 'rural ranking scale' for GPs to score the level of rurality of their practice. Currently only 13 of the district's 110 GPs have scored high enough to receive the subsidy (see table 4 below).

Table 4. Rural Ranked GPs in the MidCentral District 2008

	Number of GPs
Dannevirke	5
Foxton	1
Pahiatua	3
Otaki	4
Total	13

Nurses provide a vital health workforce in rural settings. In 2005, the DHB established the position of Director of Nursing Primary Health, and a professional development plan for primary health nursing was implemented. It was envisaged that this would provide more cohesion among nurses working in a variety of community roles. The employment of specialist nurses within PHOs to work on the disease state plans is intended to increase the visibility of and career structure for nurses serving rural communities.

Midwives now provide the majority of lead maternity care services in the district. All women are expected to have postnatal visits conducted in their homes. This has not always been available to rural women as most midwives lived and worked in Palmerston North. The implementation of MidCentral's Maternity Services Strategy has enabled the following:

- establishment of a midwifery advisor
- establishment of four rurally based primary maternity information support and advisory services, with more midwives now working rurally.
- an increase in maternity services access in all rural TA regions.

4.4.2 Development of information technology

Sharing of health information was also seen as important in terms of effective service delivery in rural areas. Rural people thought it particularly important in terms of enabling continuity of care/treatment. The development of one client electronic record that can be accessed by a variety of health providers, such as pharmacists, nurses and specialist services is planned by the Horowhenua PHO.

4.5 Integration between primary and secondary care

The implementation of the disease state plans and chronic care work was seen as very positive by rural people. They considered that the DHB was well progressed in the implementation of its disease state plans which address the care of intensive conditions and chronic diseases. People were positive about the objectives of the plans being to involve hospital based services to integrate with community providers. They were aware of the service providers located in the TA regions, which are mostly based within the PHOs to enable integration with GP services. People thought that the improvements could be consolidated as an opportunity to increase access to those living rurally.

4.6 Quality health services for those living rurally

The implementation of the disease state plans and the specific service strategies is increasing the amount of surveillance of health service provision and outcomes. The health needs assessment process also enables both monitoring and targeting of health services.

5. INITIATIVES TO FURTHER PROGRESS GOALS OF THE PRIMARY HEALTH CARE STRATEGY FOR THOSE LIVING RURALLY

5.1 Access

5.1.1 Shape services to meet the unique needs of those within each PHO region

- Acknowledge the specific health needs and demographics of the population within each PHO region and acknowledge the challenges posed by geographic location including rurality when shaping service development for these populations.

5.1.2 Develop a transport policy for the MidCentral district

- The DHB develop a transport policy for the district taking into account the national transport policy. Emphasis will be to describe the types and levels of assistance for ensuring access to health services including those living rurally.

5.1.3 Review access to parking at the Palmerston North hospital

- Look at ways to increase available parking for patients and visitors to the Palmerston North hospital.

5.1.4 Include Maori in the leadership and implementation of this strategy

- There is currently no capacity for coordinating sector wide health service development for Maori within the MidCentral district. Kaimahi Maori should lead the collaborative development of a full continuum of this strategy for Maori.

5.1.5 Promote the use of Healthline/PlunketLine and similar services

- Funded nationally, Healthline and PlunketLine use registered nurses to provide a service working from evidence based clinical guidelines. They enable rural consumers to access health advice 24 hours a day at no charge. In addition, there are some locally run healthline type services that are linked to local community health services.

5.1.6 Increase access to mental health and addiction services

- Increase access to mental health services in the mild to moderate category with a focus on follow up after assessment. It is particularly important for young people to be able to access addiction services.

5.2 Coordination of services

5.2.1 Build into processes supporting the implementation of MidCentral's health strategies and disease state plans, a means of achieving better integration of health services at community level, particularly for rural consumers

- The community hospitals/health centres and the PHOs would seem best placed to view services from the perspective of the population within their respective regions. Consumers should have the ability to transfer between providers seamlessly. PHOs should develop and implement strategies to enable communication, resource sharing and networking between providers to achieve greater horizontal integration of health services. Include a focus on coordination of mental health and addictions within the services and with other services.

5.2.2 Support collaborative service delivery in rural areas and develop services at the primary community hospitals to better meet the needs of those within their catchment

- Collaborative service developments need to be supported in order to get them off the ground for rural people. In addition, the primary community hospitals should be the first point of contact for consumers within their catchment, for:
 - telephone triage after hours
 - the coordination of transfer to the secondary service
 - specialist outpatient services
 - small surgical procedures using such services as the mobile surgical bus.

These services should be better integrated with other health providers in their TA and PHO region, encouraging more consumers to use their local services.

5.2.3 Increase the visibility of maternity service providers and the continuum of parenting services to other health service providers, including PHOs in rural areas

- Lead maternity carer midwives, primary maternity information support and advisory services, and other maternity service providers should make their services known to other local health providers. PHOs should demonstrate an interest in maternity service availability to enable ease of referral for enrolled patients.

5.2.4 Make information on local health services more broadly available to rurally located consumers

- A variety of media should be used to get the message to rural health consumers about the range of services available to them in their closest main town (not all rural consumers have access to the internet). Access to after hours service should also be made explicit.

5.3 Community participation

- 5.3.1 Maintain rural community participation in governance and monitoring health service developments that have the potential to impact on rural communities
- MidCentral will monitor representation on PHO and DHB community boards and advisory groups to ensure rural communities are well represented, given that a third of the district's population is defined as rural.
- 5.3.2 Explore the option of establishing a community first response type service for those living in remote rural areas
- The Southland community first response model may be a viable option for those living in the MidCentral district's remote rural communities requiring emergency ambulance services. These communities should be consulted to determine their willingness and interest in being involved in such a service as it is dependent on training locals to provide the first response.

5.4 Infrastructure development

- 5.4.1 Develop a plan to manage the increasing need for aged care services in rural areas
- Explore the options for increasing the local capacity for providing services to older people in the district.
- 5.4.2 Develop the roles of nurses and increase recruitment of other professional groups such as pharmacists and occupational therapists in rural communities
- Explore ways to recruit other professional groups to rural areas and to better integrate nursing services in the community. Support the role of the Director of Nursing Primary Health and the implementation of the professional development plan for primary health nursing. Explore ways that nurses in other services such as Maori providers and those working in independent health centres, have access to this resource.
- 5.4.3 Support the programmes already initiated to increase GP availability in the district
- Rural communities should be informed of and support the programmes developed by the DHB to increase GP numbers in the district. The results of monitoring and evaluation of these programmes should be communicated to the local community.

5.4.4 Include both the Horowhenua Health Centre and Dannevirke Community Hospital within the DHB information technology strategy

- An integrated IT system is essential for consumers to experience continuity of care between primary health providers and between primary care and secondary hospital services.

5.4.5 Explore the feasibility of a single purchasing plan for the Tararua region

- Primary health services in the Tararua TA are undergoing a reorganisation to improve their sustainability and to better position them for future development. Within this context it is appropriate that MidCentral considers developing a single purchasing plan for the region.

Appendix 1 – Rural Communities in New Zealand

The emergence of rural lifestyle units has been identified as *'the greatest single change to affect rural New Zealand in the past 30 years' (p10)*¹—increasing rural land prices significantly, and placing an increased burden on local infrastructures, such as schooling and other community based services. A huge difference is noted between smaller communities (both urban and rural) whose employment and economic activities are locally based and those where a significant portion of the population work in a nearby city or town.

A literature review on rural health for the National Health Committee (Fraser, J., & New Zealand National Advisory Committee on Health and Disability, 2006) noted that these communities:

- represent 14.2% of the total population of New Zealand
- inhabit 96.9% of the land area
- have a higher proportion of Maori in their population than the national average, particularly in low urban influence and remote areas
- have experienced steady growth
- have higher than average income (except remote rural)
- have lower birth rates
- have lower unemployment.

Additionally, 54% of the rural population do not have access to public transport.

With regard to the health of these communities:

- rural Maori have lower life expectancy than urban Maori
- rural non Maori have higher life expectancy than urban non Maori
- drinking water represents a greater public health issue
- they have more women over 75 with disabilities
- children with disabilities are less likely to have regular health assessments
- they pay fewer visits to GPs and are less likely to go with a number of health issues
- they have fewer diagnostic tests, cardiovascular referrals and prescriptions, less preventive care and lower health screening rates
- they have increased travel times to visit health services, GP, Plunket etc.

In rural areas:

- there is a higher patient to GP ratio
- GPs follow up more complex care which specialists would do in urban populations
- GPs record the highest number of days worked, volume of patients per day and per week, proportion of after hours work and number of weekends on call
- most GPs are overseas trained.

Critical success factors in these communities relate to the ability of the community to mobilise services in time of need.

¹ Fraser, J., & New Zealand. National Advisory Committee on Health and Disability. (2006). *Rural health: A literature review for the National Health Committee*. Wellington, New Zealand: National Health Committee.

Appendix 2 – Rural Communities in the MidCentral District

This section provides brief profile information of the rural communities in the district. The number of people living in rural communities in the MidCentral district has grown in the last 15 years. Table 5 below shows that between 2001 and 2006 the only TAs demonstrating population growth were Manawatu and Palmerston North, which are predominantly urban. The rural TAs of Tararua and Horowhenua and the rural area of Manawatu TA (that which excludes Feilding), do not demonstrate any significant population changes.

Table 5. MidCentral District Population by Territorial Authority 1991-2006

	1991	1996	2001	2006
Manawatu District	27,156	28,074	27,468	28,254
Palmerston North City	69,519	73,170	72,069	75,543
Tararua District	19,859	19,011	17,811	17,634
Horowhenua District	29,796	30,138	29,808	29,865
Otaki ward of Kapiti Coast District	7,026	7,551	7,764	7,000
MidCentral district	153,356	157,944	154,920	158,296

Features of rural territorial authorities in the MidCentral district

Rural community profiles are presented here for the Horowhenua, Otaki, Manawatu and Tararua areas.

Horowhenua

Horowhenua TA's main population groupings are centred around the towns of Shannon, Foxton and Levin. Levin, the largest (pop. 15,507) provides the base for most health services in the region as well as a 24 bed inpatient unit. Horowhenua health centre is a base for both the Horowhenua and Otaki regions' health services including secondary care services from Palmerston North.

Given the geosocial features of this TA, access to health services *should be* less of a challenge for the majority of the rural population:

- Levin is about 45 minutes from Palmerston North hospital and has a community health centre which provides satellite services as well as a variety of primary health services from the base
- health services and health providers are scattered more widely throughout this region
- Levin is centrally located within the TA region
- there are less isolated pockets of population as the region is relatively contained
- the most distant population is less than 60 minutes road travel time from the secondary care facility in Palmerston North
- there is a number of high quality through roads intersecting the region, with relatively high volumes of traffic including some public transport.

However, two features of this population are likely to mitigate ease of access to health services—the high level of social deprivation and the unique makeup of this population.

Population Profile

This TA has the highest proportion of Maori in its population. The 2006 census reported that 6,078 residents identified as Maori, which equated to 21% of the population. The overall proportion of the DHB population identifying as Maori was 16.8% (Stats NZ, 2007). One in five (20%) of the Horowhenua TA population is aged 65 years or older, which represents the highest proportion in this age group of any TA in the MidCentral district and higher than reported in the 2001 census. Conversely this TA has the lowest proportion of under 25 year olds (31.7%); the DHB average in 2006 was 36.9% (Stats NZ, 2007).

Social Deprivation

A variety of different studies have shown an association between disadvantaged NZDep scores and poorer health status. NZDep2001 is a measure of socioeconomic difference between different areas in New Zealand. The scale runs from one to ten, with ten the most socioeconomically deprived. The combined NZDep2001 9 and 10 graded census area units within the Horowhenua TA of the MidCentral district were identified as Foxton, Foxton Beach, Levin South, Levin West, Playford Park and Shannon. This represents 62% of the TA's rural population, which also has the largest proportion of its total population within this NZDep bracket of all TAs within the MidCentral district.

Health Needs Assessment

MidCentral's Health Needs Assessment (2005) found that the Horowhenua region appeared to be an area of poorer health status, compared to MidCentral overall. It experienced higher than expected hospitalisations for many diseases, and also higher than expected deaths from all causes and from the top three causes of mortality (circulatory disease, cancer, and respiratory disease).

Otaki

The Otaki ward is small with a cohesive community, centred in the township. It has integrated health and social services, together.

Otaki has some unique geosocial features that potentially influence access to health services. These include:

- the distance of at least 60 minutes road travel time from the secondary care facility in Palmerston North for most of its population and relative isolation from Palmerston North. Within Otaki there is very limited public transport
- some of the population choose to access health services in the Kapiti Coast, out of the MidCentral district
- Otaki is situated on state highway 1 and has access to a variety of public transport travelling through the town to main cities
- Levin is the closest large town.

Population Profile

Otaki Ward 2006 census data had not been separated out at the time of writing, so the 2001 data was used. At the time, the proportion of the population identifying as Maori was higher than Horowhenua in 2001, at 24.2%. This area had a lower rate of

under 25 year olds (MDHB, 2005) and the highest rate of those over 65 years (19.8%), a similar pattern to Horowhenua.

Social Deprivation

The combined NZDep2001 9 and 10 graded census area units within the Otaki portion of the Kapiti Coast TA of the MidCentral district was identified as the township of Otaki. The close proximity of Otaki to Levin within the DHB region highlights the need to be aware of issues related to social deprivation being experienced within this south eastern part of the DHB.

Health Needs Assessment

MidCentral's Health Needs Assessment (2005) found that the Otaki ward appeared to have significantly low rates of hospitalisation. This population appears to access health services less, yet maintain mortality rates similar to, and in some cases less (statistically significant age adjusted rate of 0.81 for Circulatory System Mortality) than the overall MidCentral rates.

The caution in interpreting these results is that the population is small and on the border to a tertiary level DHB. People may choose to go to the tertiary facility in Wellington for admission.

Manawatu

Feilding is the main town within the region. Its proximity to Palmerston North (20 minutes) means that a significant proportion of the community travel to the city for services. Feilding is significant in providing a service base for the rural communities to the north of the MidCentral district. The Clevely hospital was closed in 2004.

The Manawatu population exhibited evidence of greater access to health services. Some geosocial features of this TA may have influenced this:

- Feilding (which the majority of the TA population live in or close to) is located in the southern part of the region
- Feilding has most of the health services available within this TA region
- most of the region's towns, other than Feilding, have populations of less than 500.

Population Profile

Manawatu TA has the lowest proportion of Maori in its population. The 2006 census reported that 3,867 residents identified as Maori, which equated to 14% of the population. The overall proportion of the DHB population identifying as Maori was 16.8% (Statistics NZ, 2007).

Thirteen percent of its population was aged 65 years or older, which represented the lowest proportion in this age group of the four rural TAs in the MidCentral district and only slightly higher than reported in the 2001 census. There was 35.4% of the population aged under 25 years, similar to the DHB average (Statistics NZ, 2007).

Social Deprivation

The combined NZDep2001 9 and 10 graded census area units within the Manawatu TA of the MidCentral district were identified as the townships of Himatangi Beach and Tangimoana, with those living in these towns making up 5% of the total rural population of this TA.

Health Needs Assessment

MidCentral's Health Needs Assessment (2005) found that the Manawatu appeared to be an area of better health status, compared to MidCentral overall, with fewer than expected hospitalisations for many diseases. However, its mortality ratios from all causes and from the top four causes of death are similar or not significantly different to MidCentral overall.

Tararua

Main population groupings are centred around the towns of Dannevirke, Woodville, Pahiatua and Eketahuna, all of which have health services. Dannevirke, positioned in the northern part of the region with the largest population (5523), contains a 12 bed inpatient unit. Dannevirke is further distant to Palmerston North than the other towns in the region; therefore, communities south of Dannevirke tend to use Palmerston North as a base.

Some geosocial features of the Tararua TA that influence access to health services include:

- there are two main towns in this region: Dannevirke, which contains the region's community hospital, is situated in the north; and Pahiatua in the south (30 minutes road travel time apart). Each town is about 45 minutes' road travel time from the secondary care facility in Palmerston North
- the most distant population from the Palmerston North hospital would be about 90 minutes road travel time
- Eketahuna—in the southern part of the region—is 30 minutes from the Wairarapa DHB base hospital in Masterton (but one hour from Palmerston North), thus a proportion of the population use that DHB for urgent, after hours and hospital services
- Pahiatua residents appear to prefer using Palmerston North for hospital services rather than use those available in Dannevirke.

Population Profile

This TA has the second highest proportion of Maori in its population for the MidCentral district. The 2006 census reported that 3489 residents in this TA identified as Maori, which equated to 20.3% of its population. The overall proportion of the DHB population identifying as Maori was 16.8% (Stats NZ, 2007).

The age profile of this TA was similar to Manawatu, with 13.9% aged 65 years or older, one of the lowest proportion in this age group of the 4 rural TAs and only slightly higher than reported in the 2001 census. There were 35.5% of the population aged under 25 years, similar to the DHB average (Stats NZ, 2007).

Social Deprivation

The combined NZDep2001 9 and 10 graded census area units within the Tararua TA of the MidCentral district were identified as the townships of Eketahuna and Woodville, with those living in these towns make up 10.5% of the total rural population of this TA.

Health Needs Assessment

MidCentral's Health Needs Assessment (2005) found that the Tararua TA population appeared to be an area of marginally better health status, compared to MidCentral overall. The size of the population confounded the ability to achieve statistical

significance in analysis of hospitalisations and mortality. Of interest, however, was the higher than expected discharges following respiratory infections and injuries, both of which were statistically significant. Mortality rates remained similar to the overall DHB population.

Appendix 3 – Services Available for Rural Consumers

This table provides a list of the services available to rural people in each of the TA areas. The stocktake was undertaken in late 2008.

Horowhenua TA and Otaki (part of Kapiti Coast TA)	Tararua TA	Manawatu TA	Availability and cost to consumer
General practitioner and practice nurse services			
<i>Foxton (2) Shannon (1) Levin (7)</i>	<i>Dannevirke Woodville Pahiatua</i>	<i>Feilding</i>	Fees for GP visits vary by practice \$22-32. Children under six years of age are free
Immunisation	Immunisation	Immunisation	
Cervical screening	Cervical screening	Cervical screening	
Sexual and reproductive health services		Sexual and reproductive health services	Practice nurse services: variable—depends on the provider
Mobile nursing service—cardiovascular, respiratory and diabetes	Mobile nursing service—cardiovascular, respiratory and diabetes	Mobile nursing service—cardiovascular, respiratory and diabetes	Service available 5pm-11pm Rostered GPs
Sleep apnoea assessment and management	Sleep apnoea assessment and management	Sleep apnoea assessment and management	Some scheduled clinics
CarePlus	CarePlus	CarePlus	Local nurse triage (telephone and some drop in Dannevirke)
Palliative Care Partnership	Palliative Care Partnership	Palliative Care Partnership	
	After hours first contact primary health care through general practice	After hours first contact primary health care through general practice	11pm-8am local nurse triage (telephone and some drop in Dannevirke)
	Rural nursing service—Eketahuna		All areas ED cover from Palmerston North Hospital
Mobile Maori nursing services			
Asthma, diabetes, cardiac education and care	Asthma, diabetes, cardiac education and care (Woodville /Pahiatua)	Asthma, diabetes, cardiac education and care	There is no cost to the consumer for these services.
Free contraception (<22yr)		Free contraception (<22yr)	Service available weekdays 8am- 5pm
Community health worker			
Well child			
Whanau ora facilitation (mobile services)	Whanau ora facilitation (mobile services)	Whanau ora facilitation (mobile services)	There is no cost to the consumer for these services
		Vision/hearing testing	Service available weekdays 8am-5pm

Horowhenua TA and Otaki (part of Kapiti Coast TA)	Tararua TA	Manawatu TA	Availability and cost to consumer
Oral health			
School dental	School dental	School dental	Adult dental services are user pays School and adolescent dental services are free to the consumer Essential dental for low income adults—a \$35 part charge Service available weekdays 8am-5pm
Adolescent dental (Levin only)	Adolescent dental	Adolescent dental	
Essential dental—adult (Levin only)	Essential dental—adult	Essential dental—adult	
Plunket's oral health coordination service	Plunket's oral health coordination service (Dannevirke and Pahiatua)	Plunket's oral health coordination service (Feilding)	
Community pharmacy service			
<i>Otaki, Foxton Levin</i>	<i>Dannevirke Pahiatua</i>	<i>Feilding</i>	Pharmaceuticals (on approved list that are fully subsidised) Additional charges for delivery, etc) Not all pharmaceuticals are fully subsidised Service available weekdays 8am – 5pm
Community laboratory/bleeding service			
<i>Levin and Otaki</i>	<i>Dannevirke</i>		No cost for approved tests Service available weekdays 8am-5pm
Community radiology			
Plain film only (Levin)	Plain film and ultrasound (Dannevirke)		All radiology community referrals free of charge Service available weekdays 8am-5pm
Maternity services			
Primary birthing facility—6 beds (Levin)	Primary birthing facility—4 beds (Dannevirke)		There is no cost to the consumer for these services Variety of times, including evenings LMCs (Lead Maternity Carers) available 24/7
		Ante natal classes (Feilding)	
Primary maternity information services (Otaki and Levin)	Primary maternity information services (Pahiatua)	Primary maternity information services (Feilding)	
Pregnancy and parenting education (Otaki and Levin)			
LMC community midwifery services	LMC community midwifery services	LMC community midwifery services	

Horowhenua TA and Otaki (part of Kapiti Coast TA)	Tararua TA	Manawatu TA	Availability and cost to consumer
Primary health organisation services to enrolled population			
Horowhenua and Otaki PHOs provide: <ul style="list-style-type: none"> ▪ First contact medical and nursing services ▪ Health promotion services ▪ Sexual and reproductive health services ▪ Community referred ultrasound ▪ Services to improve access ▪ Lifestyle change programmes ▪ Retinal screening ▪ Chronic care teams ▪ Cardiac rehabilitation ▪ Community cardiology 	Tararua PHO provides: <ul style="list-style-type: none"> ▪ First contact medical and nursing services ▪ Health promotion services ▪ Sexual and reproductive health services ▪ Community referred ultrasound ▪ Services to improve access ▪ Lifestyle change programmes ▪ Retinal screening ▪ Chronic care teams ▪ Cardiac rehabilitation ▪ Community cardiology 	Manawatu PHO provides: <ul style="list-style-type: none"> ▪ First contact medical and nursing services ▪ Health promotion services ▪ Sexual and reproductive health services ▪ Community referred ultrasound ▪ Services to improve access ▪ Lifestyle change programmes ▪ Retinal screening ▪ Chronic care teams ▪ Cardiac rehabilitation ▪ Community cardiology 	Children aged between 6 and 17 years pay a maximum copayment of \$15 per visit Costs to children under 6 and adults as per General Practitioner costs to consumer Service available weekdays 8am-5pm
Disability support services			
Rest home	Rest home	Rest home	Maximum cost of between \$706.51 and \$725.27 per week for rest home care for non subsidised residents
Continuing care (hospital level care)	Continuing care (hospital level care)	Continuing care (hospital level care)	
Dementia	Dementia	Dementia	No cost for <ul style="list-style-type: none"> ▪ continuing care (hospital level care) ▪ dementia care ▪ psychogeriatric care
Psychogeriatric care services			
Household management	Household management	Household management	There is no cost to consumers for home based support services
Personal care	Personal care	Personal care	
Carer relief	Carer relief	Carer relief	
Alzheimer's information and support	Alzheimer's information and support	Alzheimer's information and support	No cost to the consumer for disability information service
Mental health and addiction services			
Primary mental health nurse, community support worker and medication management programme (Otaki)			Free to mental health and addiction consumers Service available weekdays 8am-5pm
MST early intervention service	MST early intervention service		
	Mental health shared care project	Mental health shared care project	
Early intervention youth alcohol and drug service	Early intervention youth alcohol and drug service		

Horowhenua TA and Otaki (part of Kapiti Coast TA)	Tararua TA	Manawatu TA	Availability and cost to consumer
Mental health and addiction services contd			
	Primary mental health innovations initiative	Primary mental health innovations initiative	Free to mental health and addiction consumers
Activity based service day programmes	Activity based service day programmes		Service available weekdays 8am-5pm
Therapeutic recreation and education programme (Levin and Otaki)	Therapeutic recreation and education programme (Dannevirke)	Therapeutic recreation and education programme (Feilding)	
Adult A&D (alcohol and drug) Kaupapa Maori counselling service	Adult A&D Kaupapa Maori counselling service		
A&D Nga Oranga O Te Rae service	A&D Nga Oranga O Te Rae service		
Training in progress for GPs and practice nurses in Horowhenua			
Packages of care			
	Activity based rehabilitation		
Other services			
<ul style="list-style-type: none"> ▪ Community palliative care ▪ Regional diabetes coordination ▪ Women's Health Centre (Otaki) ▪ Maori disability support service liaison ▪ Cancer screening for Maori ▪ Psycho oncology service ▪ Diabetes youth services (eg, camps) ▪ Sharps disposal service for people with diabetes 	<ul style="list-style-type: none"> ▪ Community palliative care ▪ Regional diabetes coordination ▪ Cancer screening for Maori ▪ Psycho oncology service ▪ Diabetes youth services (eg, camps) ▪ Sharps disposal service for people with diabetes 	<ul style="list-style-type: none"> ▪ Community palliative care ▪ Regional diabetes coordination ▪ Cancer screening for Maori ▪ Psycho oncology service ▪ Diabetes youth services (eg, camps) ▪ Sharps disposal service for people with diabetes 	<p>There is no cost to the consumer</p> <p>Service available weekdays 8am-5pm and some after hours by district nursing service</p>
Healthline and PlunketLine	Healthline and PlunketLine	Healthline and PlunketLine	<p>No cost to the consumer</p> <p>Service available 24/7</p>
Inpatient services			
<p>Horowhenua Health Centre (Levin)</p> <ul style="list-style-type: none"> ▪ Assessment, treatment and rehabilitation, maternity and rural inpatient 	<p>Dannevirke Community Hospital (Dannevirke)</p> <ul style="list-style-type: none"> ▪ Assessment, treatment and rehabilitation, maternity and rural inpatient 		<p>No costs to the consumer</p> <p>Service available 24/7</p> <p>(No emergency services)</p>

Horowhenua TA and Otaki (part of Kapiti Coast TA)	Taranua TA	Manawatu TA	Availability and cost to consumer
MidCentral Health outpatient services			
<p><i>Horowhenua Health Centre (Levin)</i></p> <ul style="list-style-type: none"> ▪ Allied health ▪ Diabetes nurse educator ▪ Dietician ▪ Geriatric medicine ▪ Gynaecology ▪ Medical (for elderly) ▪ Oncology ▪ Orthoptic ▪ Ostomy ▪ Palliative care ▪ Psychogeriatric ▪ Rheumatology ▪ Speech therapy ▪ Urology ▪ Ante natal ▪ Colposcopy ▪ Diabetes clinic ▪ Ear, nose and throat ▪ Hearing (for children) ▪ Medical ▪ Orthopaedic ▪ Orthotic ▪ Paediatric ▪ Podiatry ▪ Rehabilitation ▪ Sexual health ▪ Surgical ▪ Wound clinic ▪ District nursing ▪ Public health services ▪ Social work services ▪ SupportLinks ▪ Mental health services ▪ Alcohol and drug services ▪ Child, adolescent and family mental health 	<p><i>Dannevirke</i></p> <ul style="list-style-type: none"> ▪ Audiology ▪ Diabetes nurse ▪ Ear, nose and throat ▪ Geriatric medicine ▪ Gynaecology ▪ Ophthalmology ▪ Orthotic ▪ Paediatric ▪ Rheumatology ▪ Urology ▪ Diabetes ▪ Elderly ▪ Oncology ▪ Orthopaedic ▪ Ostomy ▪ Podiatry ▪ Surgical ▪ Wound clinic ▪ Ultrasound ▪ Public health ▪ Mental health ▪ Oranga Hinengaro (specialist Maori mental health) ▪ Occupational therapy ▪ Physiotherapy ▪ Social work services ▪ SupportLinks 	<p><i>Clevely Centre (Feilding)</i></p> <ul style="list-style-type: none"> ▪ Alcohol and drug ▪ Dietetics ▪ Podiatry ▪ Mental health ▪ Public health 	<p>Within secondary care services, consumers are liable for part charges as follows:</p> <ul style="list-style-type: none"> ▪ outpatient dental services provided to adult patients ▪ contact lenses are subsidised, but fitting costs etc, are paid for by the patient <p>Continence, ostomy and various other medical supplies used in the community are provided free of charge within certain limits. Beyond these limits the consumer pays</p> <p>There are charges associated with the use of loan equipment, and hearing aids</p> <p>Service available weekdays 8am-5pm</p>
District nursing (mobile)	District nursing (mobile)	District nursing (mobile)	<p>No cost to the consumer</p> <p>Available after hours</p>

Horowhenua TA and Otaki (part of Kapiti Coast TA)	Taranua TA	Manawatu TA	Availability and cost to consumer
MidCentral Health outpatient services <i>contd</i>			
	<p><i>Pahiatua</i></p> <ul style="list-style-type: none"> ▪ Dietetics ▪ Ear, nose and throat ▪ Geriatric medicine ▪ Paediatric ▪ Podiatry ▪ Alcohol and drug Services ▪ Public health ▪ Mental health ▪ Oranga Hinengaro (specialist Maori mental health) ▪ Occupational therapy ▪ Physiotherapy ▪ Social work services ▪ SupportLinks 		<p>Within secondary care services, consumers are liable for part charges as follows:</p> <ul style="list-style-type: none"> ▪ outpatient dental services provided to adult patients ▪ contact lenses are subsidised, but fitting costs etc, are paid for by the patient <p>Continance, ostomy and various other medical supplies used in the community are provided free of charge within certain limits. Beyond these limits the consumer pays</p> <p>There are charges associated with the use of loan equipment, and hearing aids</p> <p>Service available weekdays 8am-5pm</p>

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