Palliative Care Workforce Service Review
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>3</td>
</tr>
<tr>
<td>Recommendations</td>
<td>5</td>
</tr>
<tr>
<td>1. Introduction</td>
<td>6</td>
</tr>
<tr>
<td>2. Population trends and Palliative Care needs</td>
<td>6</td>
</tr>
<tr>
<td>3. Palliative Care Services in New Zealand</td>
<td>11</td>
</tr>
<tr>
<td>4. Palliative Care Workforce</td>
<td>14</td>
</tr>
<tr>
<td>5. Vision and Model for Palliative Care</td>
<td>20</td>
</tr>
<tr>
<td>5.1 Vision</td>
<td>20</td>
</tr>
<tr>
<td>5.2 Managed Clinical Networks</td>
<td>21</td>
</tr>
<tr>
<td>5.2.1 Palliative Care Managed Care Clinical Networks: Regions</td>
<td>22</td>
</tr>
<tr>
<td>5.2.2 Network Structure and Organisation</td>
<td>24</td>
</tr>
<tr>
<td>5.2.3 Integrated Model of Palliative Care for Networks</td>
<td>25</td>
</tr>
<tr>
<td>5.2.4 Pilot Palliative Care Managed Clinical Network</td>
<td>27</td>
</tr>
<tr>
<td>6. Education/Training Board</td>
<td>27</td>
</tr>
<tr>
<td>7. Summary of Key Points</td>
<td>28</td>
</tr>
<tr>
<td>8. Recommendations</td>
<td>29</td>
</tr>
<tr>
<td>Appendix 1: Review Members</td>
<td>31</td>
</tr>
<tr>
<td>Appendix 2: Definition of Palliative Care</td>
<td>32</td>
</tr>
<tr>
<td>Appendix 3: Definition of Palliative Care Workforce</td>
<td>33</td>
</tr>
<tr>
<td>Appendix 4: Role Delineation Model</td>
<td>34</td>
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</table>
Executive Summary

Palliative care in New Zealand is provided in a variety of settings including community, hospitals, residential care and hospices. The majority of people with cancer will require palliative care but an increasing number of people with chronic diseases also require and benefit from palliative care and often require it for a longer duration than people with cancer.

Specialist palliative care services are essential in providing expert clinical care and advice for people with complex symptoms requiring palliation. Non-specialist services particularly primary care; community health nursing and residential care are also essential in the provision of palliative care.

The aim of the Palliative Care Workforce Service Review was to develop a vision and model of palliative care service and workforce for 2020 in a context of increasing demand and limited funding.

The review was informed by literature; palliative care service and workforce data; population and forecasting data; patient experience in palliative care and also innovations that are occurring in palliative care services in New Zealand.

The review identified the following:

Palliative Care Need

- The demand for palliative care services, and thus workforce, will increase slowly over the next ten years but thereafter will increase more rapidly in line with the ageing population
- The bulk of the aging population will be European
- The number of deaths and palliative patients will nearly double by 2061
- The number of people requiring palliative care will increase by nearly 25% over the next 15 years and will be just over double that by 2061.

Palliative Care Services

- There are gaps in palliative care service provision particularly in 24 hour care in the home, bereavement counselling, community and primary care and rural palliative care
- There are a variety of palliative care models utilised by services and differing levels of regional governance
Palliative Care Workforce and Training

- There is a large variation in workforce numbers amongst regions. The number of FTEs (medical and nursing) per 1,000 patients varies between 20.7 per 1,000 patients (Upper South Island) to 42.2 per 1,000 (Central region) with the average being 27.9 per 1,000 patients.

- There are a number of palliative care workforce issues that need to be addressed including an aging workforce; recruitment and retention of palliative care medicine specialists; a shortage of general practitioners with an interest in palliative care; a shortage of nurses with specialist palliative care skills; confusion over advanced nursing practice in specialist palliative care across clinical settings; and a need to define and develop the role of allied health professionals within the multidisciplinary team.

- There is a need to develop and rationalise training for both palliative care specialist and non-specialist health professionals.

Vision and Model

The review identified that the next ten years will provide time to plan for palliative care services and workforce to ensure the vision from this review is achieved. This vision is to ensure that all people receive effective palliative care from a qualified and competent interdisciplinary team.

The vision would be achieved through developing a set of eight regional palliative care managed clinical networks that would link locally, regionally and nationally that are mandated by the Ministry and DHBs. These regional networks would use an integrated model of palliative care that enables most people with palliative care needs to be cared for in the community by primary care and district nursing professionals but have access to effective specialist palliative care services for those that require them.

Each network would have a governance and clinical team that would be selected from providers within the region to manage the network and would include a DHB representative. The funding of leadership positions including the director of palliative care and primary care lead and administration of the network would be essential for the success of the network.

It is expected that the regional palliative care networks would lead to more effective and efficient palliative care services. This would be enabled through regional planning, development and management of palliative care services and workforce. More importantly, it would enable networks to ensure that all people within the network would receive effective palliative care services in a timely manner no matter where they live.
In developing the networks it would be essential to develop and fund the primary care sector over and above their core funding as the demand for community palliative care will be substantial in the future years.

A demonstration pilot that is evaluated through action research could inform the development of the other seven palliative care managed clinical networks. It would be important to ensure that this pilot is set up in a region where there is support from a palliative care clinical champion. MidCentral, Lower South Island and Counties Manukau were suggested as regions for the pilot(s).

A useful complement to the palliative care regional networks would be the development of an Interdisciplinary Education/Training Board that links with Health Workforce New Zealand (HWNZ) whose task would be to prioritise and progress palliative care education and training needs.

Recommendations

1. That HWNZ funds a demonstration pilot managed clinical network in palliative care that is evaluated through action research to inform the development of palliative care managed clinical networks nationwide. This pilot should include funding for the director of palliative care, primary care lead and administration.

2. That the demonstration pilot is piloted in regions order of priority: MidCentral, Lower South Island and Counties Manukau.

3. That the palliative care managed clinical network develops a funding model for primary care services to provide community palliative care.

4. That HWNZ requests that the Ministry’s Cancer Programme Team consider the development of eight managed clinical networks that are linked nationally to manage palliative care in New Zealand as part of their work on palliative care models of service delivery.

5. That HWNZ work with the Ministry’s nursing team to undertake a national project outlining the service definition and utilisation of advanced nursing roles (nurse practitioner and clinical nurse specialist) within palliative care including the development of accredited training programmes within palliative care managed clinical network regions.

6. That HWNZ requests the Ministry cancer team to develop the role of allied health professionals within the multidisciplinary team within their national work programme on models of palliative care, the role delineation model and the specialist palliative care service provisions.

7. That HWNZ sets up an Interdisciplinary Education/Training Board that links with HWNZ to prioritise and progress the palliative care workforce requirements.
1. Introduction

The aim of the Palliative Care Workforce Service Review was to develop:

- A vision of the palliative care service and workforce for 2020
- A model of care for the palliative care workforce that is patient-centred, team based and builds in primary care where appropriate.

The review was to be done in the context of increasing demand for palliative care services and limited funding. A review team was put together for the review (Appendix 1) that was to be completed within a sixteen-week period.

The review was finished in February 2011 and was informed by literature; palliative care service and workforce data\(^1\), population and forecasting data\(^2\), patient experience in palliative care, and also innovations that are occurring in palliative care services in New Zealand.

2. Population Trends and Palliative Care Need

This section provides the context for considering future palliative care need and thus services and workforce. The graphs and tables are taken from the forecasting and modelling work done by HWNZ that accompanies this report\(^3\).

Aging population

Figure 1 shows that there is a steady increase in the elderly population between 2011 and 2061 but that the increase is much more rapid after 2020. Table one shows that the number of people aged 65+ years is projected to increase by approximately 2.6 times over the next five decades to reach just over 1.4 million in 2061 (an increase of 885,000 or 160%). Figure 2 (p.8) highlights that the bulk of the aging population in 2026 will be European.

\(^{1}\) Ministry of Health, Gap Analysis of Specialist Palliative Care in New Zealand, Providing a national overview of hospice and hospital-based services, Ministry of Health, 2009.


\(^{3}\) Ibid
Table 1: Projected Total Population, Aged 65+, Deaths and Characteristics, 2009(Base)-2061

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population</th>
<th>Population Age 65+</th>
<th>Deaths</th>
<th>Median Age*</th>
<th>Proportion of population Aged 65+</th>
<th>Deaths per 1000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 (base)</td>
<td>4,316,000</td>
<td>553,000</td>
<td>28,900</td>
<td>36.5</td>
<td>13%</td>
<td>6.7</td>
</tr>
<tr>
<td>2011</td>
<td>4,425,000</td>
<td>586,000</td>
<td>30,000</td>
<td>36.8</td>
<td>13%</td>
<td>6.8</td>
</tr>
<tr>
<td>2021</td>
<td>4,818,000</td>
<td>812,000</td>
<td>34,800</td>
<td>38.1</td>
<td>17%</td>
<td>7.2</td>
</tr>
<tr>
<td>2031</td>
<td>5,149,000</td>
<td>1,072,000</td>
<td>41,700</td>
<td>40.2</td>
<td>21%</td>
<td>8.1</td>
</tr>
<tr>
<td>2041</td>
<td>5,402,000</td>
<td>1,232,000</td>
<td>49,900</td>
<td>41.8</td>
<td>23%</td>
<td>9.2</td>
</tr>
<tr>
<td>2051</td>
<td>5,597,000</td>
<td>1,312,000</td>
<td>55,900</td>
<td>42.6</td>
<td>23%</td>
<td>10.0</td>
</tr>
<tr>
<td>2061</td>
<td>5,755,000</td>
<td>1,438,000</td>
<td>57,700</td>
<td>43.5</td>
<td>25%</td>
<td>10.0</td>
</tr>
</tbody>
</table>

Change 2009-2061

| Number increase | 1,439,000 | 885,000 | 28,800 | 7.0 | - | - |
| Percentage growth | 33% | 160% | 100% | 19% | - | - |
| Average annual growth | 0.55% | 1.85% | 1.34% | 0.34% | - | - |

* Median age that divides the population, with half being older and the other half younger than this age.
Deaths

The number of deaths provides the context for considering palliative care need/demand. Figure 3 shows that 71% of deaths occurred to people aged 70 and over and nearly half of the deaths are in the 80-90+ age group (49%). Figure 4 shows that as with the aging population, the number of deaths increases steadily between 2010 to 2025 but thereafter increases rapidly until 2045 and then start to slow down. This is mainly due to the effect of aging baby boomers (those born during 1945-1965).
Palliative Care Need/Demand

The number of potential palliative care patients is based on the workforce model developed by HWNZ (figure 5). This model is based on evidence[^4], expert opinion and tested against current numbers of palliative patients in New Zealand. This was also discussed with the New Zealand Palliative Care Council who is doing work on palliative care need[^5].

The model assumes that 90% of people with cancer and 40% of people with chronic disease would require some level of palliative care:

- Figure 6 (p. 11) shows that from 2010-2061 just over half (55%) of the people that died would have required prior palliative care. It also shows that the number of deaths is projected to increase by 96% during 2010-2061 and a similar increase in palliative care patients
- Figure 7 shows that from 2010 to 2026 there is approximately a 24% increase in palliative care patients
- Figure 8 illustrates the regional variation in the numbers of palliative

[^4]: Rosenwax R, McNamara, Blackmore A, Holman C, Estimating the size of a potential palliative care population, The University of Western Australia; Palliative Medicine 2005, 19: 556-562
[^5]: It is acknowledge that when the Palliative Care Council’s final report on the needs analysis is completed it will continue to inform the development of palliative care services and its workforce into the future along with the HWNZ Workforce Demand and Projections report.
care patients, which is mainly due to different population size and age structure within these regions.

**Figure 5: Model for Estimating Palliative Care Patients**

**Figure 6: Projected Deaths and Palliative Care Patients, 2010-2061**

**Figure 7: Projected Deaths and Palliative Care Patients 2010-2026**
3. Palliative Care Services in New Zealand

Palliative care in New Zealand is provided in a variety of settings including community, hospitals, residential care and hospices (see appendix 2 for a definition of palliative care). The majority of people with cancer will require palliative care but an increasing number of people with chronic diseases also require and benefit from palliative care and often require it for a longer duration than people with cancer\textsuperscript{6,7}.

Specialist palliative care services are essential in providing expert clinical care and advice for people with complex symptoms requiring palliation. Non-specialist services particularly primary care, community health nursing and residential care is also essential in the provision of palliative care (see appendix 3 for more information on specialist and non-specialist palliative care providers).

The provision of palliative care can make a huge difference to the quality of life of people that are at the end of their life. The three patient scenarios below highlight this.

\textsuperscript{7} Commonwealth of Australia, Supporting Australians to Live Well at the End of Life, Commonwealth of Australia 2010.
Scenario 1

Aroha is 64 years of age and lives in rural NZ close to her ancestral roots. Aroha has:

- No GP
- No partner as he left her last year
- Two children living in Australia.

Aroha has been diagnosed with metastatic colon cancer and has 3 months to live. Her symptoms of pain, nausea, weight loss and fear are overwhelming her life at present and she has no desire to go to the regional hospital or hospice which are both 2 hours drive from home. A neighbour is her main support who visits daily and offers meals.

Aroha has become more withdrawn in the past 3 weeks.

Aroha could benefit from palliative care. She does not need to go to the hospice or hospital for palliative care – she could receive palliative care in her home, which would significantly improve her quality of life.

If Aroha had care from a primary care team (possibly an Iwi provider) that is linked to a specialist palliative care service (mainly a hospice) the team could assess her palliative care needs in her home and gain specialist advice when it is needed. Specialist advice is likely to be that some simple medication could offer her control of her symptoms and enable her to be more comfortable at the end of her life.

Scenario 2

Jim is 72 years of age, a previous heavy smoker with chronic obstructive airways disease who is on home oxygen. Jim lives in the city centre with his wife Mary who suffers from rheumatoid arthritis. They have been married for 52 years and have no children. They receive home help that has recently been cut to 1.5 hours per week.

During the past year Jim has had 13 admissions to the emergency department some of which have resulted in 7-10 day ward admissions for broncho-pulmonary infections. During these admissions the panic that accompanies Jim’s respiratory distress has often been noted.

Although Jim has been in hospital a number of times he has not been referred to palliative care services. When Jim has difficulties he has no option but to go the emergency department for help. However, the hospital does not have a palliative care team and has a poor awareness of the palliative care needs for people with chronic disease. The coordination between hospital, hospice and residential care is very poor. The burden of palliative care lies with the general practitioner who has tried unsuccessfully to refer Jim to palliative care services.

Jim could benefit from palliative care. Patients’ like Jim experience a rapid improvement in quality of life, thus reducing the need to go to the emergency department in times of distress. Palliative care could result in Jim spending more time in his chosen place of care with greater comfort and a more cohesive team of health professionals caring for him.
Scenario 3: Letter from a family whose mum received palliative care

I cannot thank you enough for the care and attention that mum received during the time that she was being cared for by the hospice. She loved you all and especially Vicky who was her assigned palliative care nurse.

We, as a family, have reflected on the elements of care, which has led this sad time to actually be healing and indeed at times happy! I well remember the shock and indeed anger when our surgeon said there was nothing else to be done for mum but the palliative care nurse at the hospital was able to give us some hope and encouraged mum to go to the hospice for a few days. Well the team was brilliant and could not be faulted. Mum was a new woman in just 2 days and was able to come back home with dad. She did so want to be back in her home and see the paddocks from the bed in the lounge.

At home, the district nurses where great and nothing was too much trouble. Vicky was always there to make sure mum’s care and medication were sorted. I didn’t think we would see Dr. Evans again because he is so busy but when mum needed him he came straight away. It seemed that everyone knew what was happening to mum, even the pharmacist who delivered mum’s medication to her house.

Mum was clear she wanted to die at home but did worry about the process of dying as we all did. Dad did not want to speak about it and thought that we should just send Mum to hospital if there was a crisis. Vicky came to the rescue again and gave us all reassurance about what happens when someone is dying. Mum died at home surrounded by love and was free of pain. Please thanks Vicky for calling in after the funeral, I think we will be OK but we will come back to the memorial service at hospice when we are ready.

Please accept this small donation for Hospice and once again our thanks to you all for supporting us through this time with such love and care, yours sincerely, Claire.

Palliative Care Service Issues

The above scenarios highlight how people could and can benefit from palliative care. However, they also highlight that palliative care may not be available even though a person may need it.

The Ministry of Health and the Palliative Care Workforce Review Team have identified a number of service and workforce issues that need to be addressed in developing a model of palliative care to ensure its availability to all who need it\(^8\). The palliative care service issues are outlined below (see section 4 for workforce issues).

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\(^8\) Ministry of Health, Gap Analysis of Specialist Palliative Care in New Zealand, Providing a national overview of hospice and hospital-based services, Ministry of Health 2009.

\(^9\) Palliative Care Workforce Service Review Team 2010-2011.
4. Palliative Care Workforce

This section provides information on the current and projected palliative care workforce, and workforce and training issues.

Table 2 below provides the numbers of medical, nursing and allied health staff in the palliative care professional workforce based on a survey by the Ministry of Health in 2009\textsuperscript{10}. It is important to note that this survey also identified that there were a number of gaps in the workforce that were not quantified in the report.

\begin{table}
\centering
\begin{tabular}{|l|}
\hline
\textbf{There are major gaps in palliative care service provision} \\
\hline
- There is an increasing demand for palliative care services \\
- There is a lack of 24 hour palliative care in the home that results in unnecessary hospital admissions \\
- There are increasing referrals and increasing demand for hospital palliative care services due to an under-resourced community palliative care service \\
- There are limited palliative care services in many rural areas \\
- Apart from a few places in New Zealand (e.g. MidCentral DHB), palliative care provided by primary care professionals is not funded (over their core funding) and therefore not consistently available or accessible \\
- There are major gaps in bereavement support \\
- There are different models of palliative care \\
- There is limited regional governance of palliative care services \\
\hline
\end{tabular}
\end{table}

\textsuperscript{10} Ministry of Health, Gap Analysis of Specialist Palliative Care in New Zealand, Providing a national overview of hospice and hospital-based services, Ministry of Health, 2009.
Table 2: Palliative Care Workforce by Occupation, 2007/2008 financial year

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Hospice FTEs</th>
<th>Hospice Head Counts</th>
<th>Hospital FTEs</th>
<th>Hospital Head Counts</th>
<th>Hospice+Hospital FTEs</th>
<th>Hospice+Hospital Head Counts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medical</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialist</td>
<td>17.1</td>
<td>30</td>
<td>12.4</td>
<td>17</td>
<td>29.5</td>
<td>47</td>
</tr>
<tr>
<td>MOSS</td>
<td>8.3</td>
<td>16</td>
<td>0.6</td>
<td>1</td>
<td>8.9</td>
<td>17</td>
</tr>
<tr>
<td>Registrar</td>
<td>4.0</td>
<td>6</td>
<td>5.3</td>
<td>6</td>
<td>9.3</td>
<td>12</td>
</tr>
<tr>
<td>GP with special interest</td>
<td>10.3</td>
<td>27</td>
<td>-</td>
<td>-</td>
<td>10.3</td>
<td>27</td>
</tr>
<tr>
<td>Other medical</td>
<td>1.8</td>
<td>7</td>
<td>-</td>
<td>-</td>
<td>1.8</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total Medical</strong></td>
<td>41.5</td>
<td>86</td>
<td>18.3</td>
<td>24</td>
<td>59.9</td>
<td>110</td>
</tr>
<tr>
<td><strong>Nurses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>0.0</td>
<td>0</td>
<td>1.0</td>
<td>1</td>
<td>1.0</td>
<td>1</td>
</tr>
<tr>
<td>Clinical Nurse Specialist</td>
<td>49.1</td>
<td>62</td>
<td>24.1</td>
<td>28</td>
<td>73.2</td>
<td>90</td>
</tr>
<tr>
<td>Registered Nurse</td>
<td>246.6</td>
<td>431</td>
<td>-</td>
<td>-</td>
<td>246.6</td>
<td>431</td>
</tr>
<tr>
<td>Enrolled &amp; Other Nurse</td>
<td>55.5</td>
<td>87</td>
<td>-</td>
<td>-</td>
<td>55.5</td>
<td>87</td>
</tr>
<tr>
<td><strong>Total Nurses</strong></td>
<td>351.2</td>
<td>580</td>
<td>25.1</td>
<td>29</td>
<td>376.3</td>
<td>609</td>
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<tr>
<td><strong>Allied Health</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Physiotherapist</td>
<td>0.8</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>0.8</td>
<td>1</td>
</tr>
<tr>
<td>Social Worker</td>
<td>15.7</td>
<td>24</td>
<td>1</td>
<td>1</td>
<td>16.7</td>
<td>25</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>2.4</td>
<td>7</td>
<td>-</td>
<td>-</td>
<td>2.4</td>
<td>7</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>5.1</td>
<td>7</td>
<td>0.8</td>
<td>1</td>
<td>5.9</td>
<td>8</td>
</tr>
<tr>
<td>Dietician</td>
<td>0.4</td>
<td>1</td>
<td>0.0</td>
<td>0</td>
<td>0.4</td>
<td>1</td>
</tr>
<tr>
<td>Other Allied Health</td>
<td>3.4</td>
<td>7</td>
<td>0.5</td>
<td>2</td>
<td>3.9</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total Allied</strong></td>
<td>27.8</td>
<td>47</td>
<td>2.3</td>
<td>4</td>
<td>30.1</td>
<td>51</td>
</tr>
<tr>
<td><strong>Total PC Workforce</strong></td>
<td>420.5</td>
<td>713</td>
<td>45.7</td>
<td>57</td>
<td>466.2</td>
<td>770</td>
</tr>
</tbody>
</table>

FTEs: Full-Time Equivalent employees.

Source: Gap Analysis Survey, year ended June 2008

Figure 9 (p.16) shows that at the time of the Ministry of Health survey, nurses formed the highest proportion of palliative care staff (376, 81%). Table 3 illustrates the large variation in workforce numbers between regions. The number of FTEs per 1,000 patients varies between 20.7 per 1,000 (Upper South Island) to 42.2 per 1,000 (Central Region) with the average being 27.9 per 1,000.

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11 Ibid
12 Note that the regions referred to are those outlined in Section 5 as part of the review team’s proposed regional palliative care managed clinical networks.
Figure 9: Palliative Care Workforce by Occupation (FTEs & % share)

Table 3: Workforce and Patients Ratios, 2008 (Medical and Nursing FTEs per 1000 Patients)

<table>
<thead>
<tr>
<th>PC Networks</th>
<th>Patients (1)</th>
<th>Medical FTEs</th>
<th>Medical FTEs per 1000 Patients</th>
<th>Nursing FTEs</th>
<th>Nursing FTEs per 1000 Patients</th>
<th>Total FTEs per 1000 Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Northland &amp; Waitemata</td>
<td>2,108</td>
<td>7.8</td>
<td>3.7</td>
<td>43.3</td>
<td>20.5</td>
<td>24.2</td>
</tr>
<tr>
<td>2. Auckland</td>
<td>1,348</td>
<td>8.4</td>
<td>6.2</td>
<td>33.0</td>
<td>24.5</td>
<td>30.7</td>
</tr>
<tr>
<td>3. Counties Manukau</td>
<td>1,245</td>
<td>4.5</td>
<td>3.6</td>
<td>30.5</td>
<td>24.5</td>
<td>28.1</td>
</tr>
<tr>
<td>4. Waikato &amp; Bay of Plenty</td>
<td>2,728</td>
<td>7.3</td>
<td>2.7</td>
<td>51.6</td>
<td>18.9</td>
<td>21.6</td>
</tr>
<tr>
<td>5. Mid-Central</td>
<td>2,452</td>
<td>10.5</td>
<td>4.3</td>
<td>77.9</td>
<td>31.8</td>
<td>36.0</td>
</tr>
<tr>
<td>6. Central</td>
<td>1,541</td>
<td>11.2</td>
<td>7.3</td>
<td>53.9</td>
<td>35.0</td>
<td>42.2</td>
</tr>
<tr>
<td>7. Upper South Island</td>
<td>2,927</td>
<td>6.3</td>
<td>2.1</td>
<td>54.3</td>
<td>18.6</td>
<td>20.7</td>
</tr>
<tr>
<td>8. Lower South Island</td>
<td>1,277</td>
<td>4.0</td>
<td>3.2</td>
<td>31.7</td>
<td>24.8</td>
<td>28.0</td>
</tr>
<tr>
<td>New Zealand</td>
<td>15,625</td>
<td>59.9</td>
<td>3.8</td>
<td>376.2</td>
<td>24.1</td>
<td>27.9</td>
</tr>
</tbody>
</table>

(1) Patient numbers are estimated from death numbers, assuming 30% being cancer and 70% non-cancer deaths; and 90% of cancer and 40% of non-cancer deaths required some prior palliative care.
Figure 10 illustrates the model for projecting the palliative care workforce. Figure 11 shows the projected increase to 2026. This is based on the 2008 workforce data, projected deaths and palliative care patients. There is an additional 105 FTEs needed by 2026 with 94 (86%) of those being in nursing. This does not include the number of allied health professionals.

Figure 10: Model for Projecting Palliative Care Workforce

![Diagram showing the model for projecting palliative care workforce](image)

Figure 11: Projected Palliative Care Workforce Increase 2011-2026

![Bar chart showing projected workforce increase](image)

Palliative Care Workforce and Training Issues

---


The Ministry of Health survey identified a number of workforce and training issues in their review\(^\text{15}\). The review team identified some further issues and both are outlined in the boxes below.

<table>
<thead>
<tr>
<th>Palliative Care Workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is an urgent need for palliative care workforce development</td>
</tr>
<tr>
<td>• The palliative care workforce is aging</td>
</tr>
<tr>
<td>• There is a shortage of trained palliative care staff in rural areas</td>
</tr>
<tr>
<td>• There is a variation in qualifications of staff employed in palliative care</td>
</tr>
<tr>
<td>• There is a lack of cultural diversity in the palliative care workforce</td>
</tr>
<tr>
<td>• Volunteers are sometimes needed to fill gaps in the professional workforce</td>
</tr>
<tr>
<td>• Professional isolation and maintenance of clinical competency is an issue</td>
</tr>
</tbody>
</table>

**Nurses**

- There is a shortage of nurses with specialist palliative care skills - pay parity with hospitals is an issue for some hospices
- There is confusion in the sector about the roles and functions of advanced nursing roles within palliative care such as clinical nurse specialists and nurse practitioners
- There is a major workload in palliative care for community/district nurses/aged residential nurses and care assistants and the model of care between district nursing and hospice nursing is not consistent throughout the country

**Doctors**

- The recruitment and retention of palliative care medicine specialists in urban and provincial areas is a major issue
- There is a shortage of GPs with an interest in training in palliative care
- There are only a few GP champions for palliative care

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\(^{15}\) Ministry of Health, Gap Analysis of Specialist Palliative Care in New Zealand, Providing a national overview of hospice and hospital-based services, Ministry of Health 2009
Allied Health

- Hospices vary in the employment of allied health staff (e.g. social workers, psychotherapists, physiotherapists and pharmacists – not all hospices employ these staff who are mainly based in a DHB allied health pool and not always available for palliative care.

- Allied health professionals are commonly part of the palliative care multidisciplinary team in other countries (e.g. United Kingdom) but are not always in New Zealand.\(^{16}\)

- The role of allied health professionals within the multidisciplinary team needs to be defined and developed for New Zealand.

Palliative Care Training

There is a need to develop and rationalise palliative care education/training

- Undergraduate programmes currently do not have sufficient palliative care content which is essential to ensure that all health professionals achieve the skills and knowledge to deliver a palliative care approach to care.

- There are not enough doctors training to become palliative care medicine specialists.

- The education/training pathway for nurses to develop the skills required to work in specialist palliative care and practice roles is unclear.

- Allied health professionals currently do not have access to funded training places in palliative care.

- There is an insufficient focus on training programmes for non-specialist palliative care staff.

- GPs do not have access to funded diploma training places in palliative care, and yet are required to provide palliative care in the community.

- Over a third of people die in rest homes yet health assistants do not have access to funded palliative care certificate places.

- The nursing workforce in residential care is not supported to develop their skills in palliative care.

\(^{16}\) Greensmith C, Allied health professionals in palliative care, Unpublished paper prepared for the Palliative care workforce service review, November 2010.
Implications of Workforce Data

In developing palliative care services and workforce to meet future need, it is important to take into consideration the current workforce gaps; the increase in workforce that will be required to meet future demand; and the above workforce and training issues.

5. Vision and Model for Palliative Care

The review team took the following into consideration in the development of the vision and model of palliative care:

- Aging population and increasing numbers of people that will require palliative care
- Current palliative care services
- Current workforce and training issues
- Increase required in the palliative care workforce
- The effective use of palliative care services and workforce.

The challenge for the review team was to:

1. Develop a vision and model of how palliative care services could be provided more efficiently and effectively
2. Identify how specialist and non-specialist palliative care workforce could be better and more innovatively deployed within palliative care
3. Develop a method of prioritising palliative care training needs.

5.1 Vision

The vision for palliative care service and workforce is:

The consumer will receive effective palliative care from a qualified and competent interdisciplinary team

This vision for palliative care services will be realized through the development of eight regional palliative care managed clinical networks that will link locally, regionally and nationally
5.2 Managed Clinical Networks

The review team identified that the answer to meeting the palliative care needs of New Zealand was through regional managed clinical networks (MCNs). This would enable networks to plan and deliver services based on their region’s needs as well as link nationally to create a leadership infrastructure.

The review team’s decision was informed by the literature and experience of managed clinical networks\textsuperscript{17}1819. Managed clinical networks are intended to be patient centred and have been defined as “…linked groups of health professionals and organisations from primary, secondary and tertiary care working in a coordinated manner, unconstrained by existing professional and organisational boundaries to ensure equitable provision of high quality effective (national) health services”\textsuperscript{2021}.

MCNs have been developed for a wide range of conditions including neurology, vascular services, coronary heart disease, stroke, diabetes, palliative care, epilepsy, multiple sclerosis, and cleft lip and palate. MCNs can also be developed in relation to service functions e.g. (emergency, pathology, critical care)\textsuperscript{22}.

It is suggested that MCNs stimulate creativity and innovation by creating an environment where multidisciplinary teams, consumers and organisations come together to plan for the network. This includes the ability of the Network to be more dynamic and flexible in responding to the needs of clients and changing the way that services are delivered to meet these needs.

MCNs can also address their workforce issues by making better use of scarce specialist expertise, utilising staff more efficiently, developing more innovative roles and ways of work thus preventing duplication of effort and resources. The type of Network and the geographical range of the Network need to be developed based on the best interests of patients\textsuperscript{23}.

MCNs are currently part of government policy and require a mandate from the government and DHBs to operate. They can be formed locally (DHB),

\textsuperscript{17} McKinlay E, McBain L, Evaluation of the Palliative Care Partnership: a New Zealand solution to the provision of integrated palliative care, NZMJ, 12 October 2007.
\textsuperscript{19} Palliative Care Australia, A Guide to Palliative Care Service Development, May 2005.
\textsuperscript{20} Scottish Executive Health Department NHS Circular: HDL (2002) 69.
\textsuperscript{22} Ibid
\textsuperscript{23} Scottish Executive Health Department NHS Circular: HDL (2002) 69.
5.2.1 Palliative Care Managed Care Clinical Networks: Regions

The map on the next page (figure 12) illustrates where the eight palliative care managed clinical networks would be situated. The regions were chosen based on demographics, geography, DHB boundaries (see table 4), existing provider relationships and size (around 400,000 a level for effective workforce and service management). Figure 13 below shows the size of the population of each of the networks. The average population size is 546,000, with the Lower South Island being the smallest network (300,346) and the Upper South Island being the largest (734,426). Interestingly the Upper South Island is also the network with the least FTEs per 1,000 patients (20.7 per 1,000 patients) (see table 3, p.17).

Figure 12: Palliative Care Regions

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### Table 4: DHBs within Regional Palliative Care Networks

<table>
<thead>
<tr>
<th>Palliative Care Managed Clinical Networks</th>
<th>Constituent District Health Boards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Northland &amp; Waitemata</td>
<td>Northland DHB</td>
</tr>
<tr>
<td></td>
<td>Waitamata DHB</td>
</tr>
<tr>
<td>2. Auckland</td>
<td>Auckland DHB</td>
</tr>
<tr>
<td>3. Counties Manukau</td>
<td>Counties Manukau DHB</td>
</tr>
<tr>
<td>4. Waikato &amp; Bay of Plenty</td>
<td>Waikato DHB</td>
</tr>
<tr>
<td></td>
<td>Lakes DHB</td>
</tr>
<tr>
<td></td>
<td>Bay of Plenty DHB</td>
</tr>
<tr>
<td>5. Mid-Central</td>
<td>Tairawhiti DHB</td>
</tr>
<tr>
<td></td>
<td>Taranaki DHB</td>
</tr>
<tr>
<td></td>
<td>Hawke's Bay DHB</td>
</tr>
<tr>
<td></td>
<td>Whanganui Bay DHB</td>
</tr>
<tr>
<td></td>
<td>MidCentral DHB</td>
</tr>
<tr>
<td>6. Central</td>
<td>Hutt Valley DHB</td>
</tr>
<tr>
<td></td>
<td>Capital &amp; Coast DHB</td>
</tr>
<tr>
<td></td>
<td>Wairarapa DHB</td>
</tr>
<tr>
<td>7. Upper South Island</td>
<td>Nelson Marlborough DHB</td>
</tr>
<tr>
<td></td>
<td>West Coast DHB</td>
</tr>
<tr>
<td></td>
<td>Canterbury DHB</td>
</tr>
<tr>
<td></td>
<td>South Canterbury DHB</td>
</tr>
<tr>
<td>8. Lower South Island</td>
<td>Southern DHB</td>
</tr>
</tbody>
</table>

### Figure 13: Population by Palliative Care Network Region, (people and % share) 2010
5.2.2 Network Structure and Organisation

A governance team and a clinical management team will manage the networks. Their functions are outlined in the boxes below.

**Governance Team**

The Governance Team will provide the overall leadership for the network and link with other palliative care networks regionally and nationally. The team will include:

- Director of palliative care
- A representative of DHB Funding and Planning
- Primary care lead
- Secondary care lead
- Hospice lead
- Aged care lead
- Consumer/community representative

There will need to be funding for positions including the director of palliative care, primary care lead and administration of the network. Network leads will be chosen for their leadership skills and experience in the sector.

**Responsibilities**

- Create the structure and develop the organisation of the network
- Identify the need/demand for palliative care services within the region. Note that data is available for regions as a basis for undertaking the needs analysis\(^2\)
- Undertake strategic planning for all specialist and non-specialist palliative care services and workforce
- Develop 24-hour (7 days a week) systems for after hour home support
- Support a business model to support the relevant palliative care services of the region
- Manage change e.g. service change
- Develop and connect IT systems within the networks- locally, regionally and nationally
- Support the development and funding of research into NZ relevant aspects of palliative care
- Develop linkages with tertiary education providers

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Clinical Management Team

The clinical management team will provide the clinical leadership for the sector. The team is made up of clinical leaders from the various organisations within the network. This is aimed at avoiding duplication of work and efficient use of workforce. The team includes:

- Director of Palliative Care
- Palliative care medicine specialist
- Nurse Practitioner
- Primary care professional
- Allied health professional
- Aged care professional

Responsibilities

- Clinical governance and leadership
- Quality and service improvement including 24 hour cover
- Advance care planning
- Development of the interdisciplinary team including advanced nursing roles and allied health staff
- Workforce innovation and deployment
- Education/Training
- Developing and implementing a model of bereavement support
- Research
- Development of resources

5.2.3 Integrated Model of Palliative Care for Networks

Networks will use an integrated model of care for the provision of palliative care (figure 14). This model builds on the role delineation model (see appendix 4). It also builds on the evidence that educated and remunerated primary care teams supported by specialist palliative care can successfully care for the majority of palliative care need in their region. This is a model that the review team believes has potential to be adopted more widely throughout the country.2627

26 Stewart B, Allan S, Keane B, Marshall B, Ayling J, Luxford T, Palliative Care Partnership a successful model of primary/secondary integration, the New Zealand Medical Journal, Vol 119, No 1242, ISSN, 1175 8716
27 McKinlay E, McBain L, Evaluation of the Palliative Care Partnership: A New Zealand solution to the provision of integrated palliative care, The New Zealand Medical Journal, Vol 120, No 1263, ISSN, 1175 8716
The integrated care model assumes that:

- Most people with palliative care needs will be cared for in the community by non-specialist (generalist) palliative care professionals, particularly primary care and district nursing and that some people will require specialist palliative care.

- An Advance Care Pathway for end of life care (e.g. Gold Standards Framework\(^{28}\)) that will incorporate a NZ advance care planning tool (under development by the Advance Care Planning Cooperative) will be used in the community which will enable more people to remain in their homes at the end of life.

- Patients who require it will move between non-specialist and specialist palliative care.

- All non-specialist palliative care staff will have expertise in the palliative care approach and that specialist staff in palliative care settings will have specialist palliative care training/education.

- Community palliative care (including primary care and palliative care in residential care) is a universal right and is available free to palliative care patients.

- There will be a collaborative approach amongst all organisations and professionals.

\(^{28}\) [http://www.goldstandardsframework.nhs.uk/](http://www.goldstandardsframework.nhs.uk/)
5.2.4 Pilot Palliative Care Managed Clinical Network

The review team recommended that a demonstration pilot that is evaluated through action research should be set up to inform the development of the regional networks.

These networks should be set up where there are existing champions. The suggested pilot regions for palliative care managed clinical networks are outlined in the table below in order of priority.

<table>
<thead>
<tr>
<th>Network</th>
<th>Characteristics</th>
</tr>
</thead>
</table>
| Mid-Central      | • Mixed urban/rural population  
|                  | • Inequities of access  
|                  | • Sizeable Maori population  
|                  | • Two hospices  
|                  | • One Hospital Palliative Care Team                                             |
| Lower South Island| • Large geographical area to service  
|                  | • Range of population  
|                  | • Cancer network in operation  
|                  | • Two hospices  
|                  | • One Hospital Palliative Care Team                                             
|                  | • Training university                                                            |
| Counties Manukau | • Predominantly urban  
|                  | • Inequities of access  
|                  | • Large Maori and Pacific population  
|                  | • Two hospices  
|                  | • One Hospital Palliative Care Team                                             |

6. Education/Training Board

With the large number of palliative care education/training issues that need to be addressed the review team developed the idea of having a Palliative Care Interdisciplinary Education/Training Board that would complement the regional palliative care managed clinical networks. The review team’s vision is that this training board would be linked with HWNZ and would be tasked with prioritizing and progressing the palliative care workforce’s training needs. The box below identifies the immediate priorities that would be addressed by such a training board.
### Priorities of the Palliative Care Interdisciplinary Education/Training Board

1. Coordinate a review of the palliative care content in all undergraduate and post-graduate health education programmes

2. Review the education/training of the interdisciplinary team

3. Assist in the development of accredited training sites for nurses to develop advance palliative care nursing skills

4. Ensure access to a variety of training/upskilling programmes in palliative care for non-specialist (generalist) palliative care staff including e-learning programmes

5. Introduce funded places for general practitioners to complete the Clinical Diploma in Palliative Medicine developed by the Royal Australasian College of Physicians (RACP)

6. Increase the capacity of palliative care specialist medical training within New Zealand

7. Review the ARRMOS (Auckland regional resident medical officers service) model in conjunction with PaMTracCC (Palliative Medicine Training Coordination Committee) within the NZ branch of the Royal Australasian College of Physicians, for wider use within New Zealand

8. Assist in identifying education and training needs and scope of practice of allied health workers and ensure access to post-graduate funded training

### 7. Summary of key points

**Key Points**

1. The demand for palliative care services, and thus workforce, will increase slowly over the next ten years but thereafter will increase more rapidly in line with the ageing population

2. The next ten years will provide time to plan for palliative care services and workforce to ensure they will meet population need
3. The development and funding of the primary care sector will be essential to meet the future increasing demand for community palliative care

4. As well as future demand there is a need to address the current gaps in palliative care service provision, workforce and training

5. There is a need to define and develop the roles of nurses and allied health professionals within the multidisciplinary team

6. A set of eight palliative care managed clinical networks could enable services to come together to integrate services and ensure that all people who need palliative care receive it. These networks would use an integrated model of palliative care

7. A demonstration pilot that is evaluated through action research could inform the development of the other palliative care managed clinical networks. Potential places where they are likely to be successful include MidCentral, Lower South Island and Counties Manukau. This pilot will need to include funding for the Director in Palliative Care, the Primary Care Lead and administration

8. An Interdisciplinary Education/Training Board would be a useful structure to prioritise and progress palliative care education and training needs.

8. Recommendations

Palliative Care Managed Clinical Networks

1. That HWNZ funds a demonstration pilot managed clinical network in palliative care that is evaluated through action research to inform the development of palliative care managed clinical networks nationwide. This pilot should include funding for the director of palliative care, primary care lead and administration.

2. That the demonstration pilot is piloted in regions order of priority: MidCentral, Lower South Island and Counties Manukau.

3. That the palliative care managed clinical network develops a funding model for primary care services to provide community palliative care.

4. That HWNZ requests that the Ministry’s Cancer programme team
consider the development of eight managed clinical networks that are linked nationally to manage palliative care in New Zealand as part of their work on palliative care models of service delivery.

**Development of the Multidisciplinary Team**

5. That HWNZ work with the Ministry’s nursing team to undertake a national project outlining the service definition and utilisation of advanced nursing practice roles (nurse practitioner and clinical nurse specialist) within palliative care including the development of accredited training programmes within palliative care managed clinical network regions.

6. That HWNZ requests the Ministry cancer team to develop the role of allied health professionals within the multidisciplinary team within their national work programme on models of palliative care, the role delineation model and the specialist palliative care service provisions.

**Interdisciplinary Training/Education Board**

7. That HWNZ sets up an Interdisciplinary Education/Training Board that links with HWNZ to prioritise and progress the palliative care workforce requirements.
## Appendix 1: Review members

### Members of the Review Team

<table>
<thead>
<tr>
<th>Name</th>
<th>Profession</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simon Allan</td>
<td>Director of Palliative Care</td>
</tr>
<tr>
<td></td>
<td>Senior advisor palliative care, Ministry of Health</td>
</tr>
<tr>
<td></td>
<td>Chair of the Review Team</td>
</tr>
<tr>
<td>Jackie Robinson</td>
<td>Nurse Practitioner in palliative care</td>
</tr>
<tr>
<td>Clare Randall</td>
<td>Hospice manager/pharmacist</td>
</tr>
<tr>
<td>Clare Greensmith</td>
<td>Patient and family/whānau support services/ Psychotherapist</td>
</tr>
<tr>
<td>Suzanne Brocx</td>
<td>Northland palliative care specialist nurse educator/advisor</td>
</tr>
<tr>
<td>Rod MacLeod</td>
<td>Palliative care medicine specialist and academic</td>
</tr>
<tr>
<td>Bruce Stewart</td>
<td>General practitioner</td>
</tr>
<tr>
<td>Deborah Peters</td>
<td>Consumer</td>
</tr>
<tr>
<td>Laura Lambie</td>
<td>Project manager of the review</td>
</tr>
<tr>
<td>Michael Batson</td>
<td>HWNZ senior policy analyst</td>
</tr>
<tr>
<td>Mike Chan</td>
<td>HWNZ senior analyst</td>
</tr>
</tbody>
</table>
Appendix 2: Definition of palliative care

Palliative care is an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.

Palliative care:

- Provides relief from pain and other distressing symptoms
- Affirms life and regards dying as a normal process
- Intends neither to hasten nor postpone death
- Integrates the psychological and spiritual aspects of patients’ care
- Offers a support system to help patients live as actively as possible until death
- Offers a support system to help the family cope during the patient’s illness and in their own bereavement
- Uses a team approach to address the needs of patients and their families, including bereavement counselling, if indicated
- Will enhance quality of life, and may also positively influence the course of illness

Palliative Care: New Zealand Definition (2007)
The New Zealand definition of Palliative Care is:

Care for people of all ages with a life-limiting illness which aims to:

1. Optimise an individual’s quality of life until death by addressing the person’s physical, psychosocial, spiritual and cultural needs.

2. Support the individual’s family, whānau, and other caregivers where needed, through the illness and after death.

Palliative care is provided according to an individual’s need, and may be suitable whether death is days, weeks, months or occasionally even years away. It may be suitable sometimes when treatments are being given aimed at improving quantity of life.

It should be available wherever the person may be.

It should be provided by all health care professionals, supported where necessary, by specialist palliative care services.

Palliative care should be provided in such a way as to meet the unique needs of individuals from particular communities or groups. These include Maori, children and young people, immigrants, refugees, and those in isolated communities.
Appendix 3: Definition of palliative care workforce

Current palliative care Workforce

The current palliative care workforce is divided into two categories:

- Specialist palliative care health professionals
- Non-Specialist (Generalist) palliative care health professionals

The following description is adapted from a gap analysis of specialist palliative care services undertaken by the Ministry of Health\textsuperscript{29}.

Specialist palliative care workforce

Specialist palliative care is palliative care provided by those who have undergone specific training and/or accreditation in palliative care or medicine, and who are working in the context of an expert interdisciplinary team of palliative care health professionals. Specialist palliative care can be provided by hospices (community), hospital-based palliative care services, or paediatric specialist palliative care teams.

Specialist palliative care health professionals can include:

1. Palliative care medicine specialists
2. Nurse practitioners
3. Palliative care nurse specialists
4. Registered nurses
5. Social workers
6. Counsellors
7. Grief and loss health professionals
8. Physiotherapists
9. Occupational Therapists
10. Spiritual/Pastoral support

Specialist palliative care practice builds on the palliative care provided by generalist providers and reflects a higher level of expertise in complex symptom management, spiritual support, psychosocial support, cultural support, and grief and loss support. Specialist palliative care provision works in two ways.

1. It works directly by providing direct management and support to people, their families and whānau where complex palliative care need exceeds the resources of the generalist provider. The involvement of specialist palliative care with any person and their

\textsuperscript{29} Ministry of Health, Gap Analysis of Specialist Palliative Care in New Zealand, Providing a national overview of hospice and hospital-based services, Ministry of Health, 2009.
family and whānau can be continuous or episodic depending on their assessed changing need. Complex need in this context is defined as a level of need that exceeds the resources of the generalist team: this may apply in any of the domains of care – physical, psychosocial, spiritual or cultural, for example.

2. It works indirectly by providing advice, support, education and training to other health professionals and volunteers to support their generalist provision of palliative care.

**Non-Specialist (Generalist) palliative care workforce**

Non-Specialist (Generalist) palliative care is palliative care provided for those affected by life-limiting illness as an integral part of standard clinical practice by any health care professional that is not part of a specialist palliative care team. It is provided in the community by primary care teams (including general practitioners and practice nurses), Māori and Pacific health providers, allied health teams, district nurses, residential care staff, community support services, and community paediatric teams. It is provided in hospitals by general adult and paediatric medical and surgical teams, as well as disease specific teams including oncology, respiratory, renal, intensive care and cardiac teams.

Some of these generalist providers, such as general practice teams, will have ongoing contact with a family throughout and following illness. Others, such as district nurses and hospital teams, will have episodic contact, depending on the needs of the person and their family and whānau.

Providers of generalist palliative care will have defined links with specialist palliative care team(s) for the purposes of support and advice, or in order to refer people with complex needs. They will also have access to palliative care education and learning to support their practice.

**Appendix 4: Role Delineation Model**

References:

- Palliative Care Australia, Standards for providing quality palliative care for all Australians, May 2005

- Palliative Care Australia, A Guide to Palliative Care Service Development, May 2005

This model was used to inform the development of the integrated care model outlined in this report.
Figure 1: Conceptual model of level of need within the population of patients with a life limiting illness.

Figure 2: Framework for palliative care service planning
<table>
<thead>
<tr>
<th>Level</th>
<th>Capability</th>
<th>Typical resource profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary care</td>
<td>Clinical management and care coordination including assessment, triage, and referral using a palliative approach for patients with uncomplicated needs associated with a life limiting illness and/or end of life care. Has formal links with a specialist palliative care provider for purposes of referral, consultation and access to specialist care as necessary.</td>
<td>General medical practitioner, nurse practitioner, registered nurse, generalist community nurse, aboriginal health worker, allied health staff. Specialist health care providers in other disciplines would be included at this level.</td>
</tr>
<tr>
<td>Specialist Palliative Care Level 1</td>
<td>Provide palliative care for patients, primary carers and families whose needs exceed the capability of primary care providers. Provides assessment and care consistent with needs and provides consultative support, information and advice to primary care providers. Has formal links to primary care providers and level 2 and/or 3 specialist palliative care providers to meet the needs of patients, carers and families with complex problems. Has quality and audit programme.</td>
<td>Multi-disciplinary team including medical practitioner with skills and experience in palliative care, clinical nurse specialist/consultant, allied health staff, pastoral care and volunteers. A designated staff member if available, coordinates a volunteer service.</td>
</tr>
<tr>
<td>Specialist Palliative Care Level 2</td>
<td>As for level 1, able to support higher resource level due to population base (eg regional area). Provides formal education programs to primary care and level 1 providers and the community. Has formal links with primary care providers and level 3 specialist palliative care services for patients, primary carers and families with complex needs.</td>
<td>Interdisciplinary team including medical practitioner and clinical nurse specialist/consultant with specialist qualifications. Includes designated allied health and pastoral care staff.</td>
</tr>
<tr>
<td>Specialist Palliative Care Level 3</td>
<td>Provides comprehensive care for the needs of patients, primary carers and families with complex needs. Provides local support to primary care providers, regional level 1 and/or 2 services including education and formation of standards. Has a comprehensive research and teaching role. Has formal links with local primary care providers and with specialist palliative care providers level 1 and 2, and relevant academic units including professional chairs where available.</td>
<td>Interdisciplinary team including a medical director and clinical nurse consultant/nurse practitioner and allied health staff with specialist qualifications in palliative care.</td>
</tr>
</tbody>
</table>

A Guide to Palliative Care Service Development: A population based approach