



A Plan to Promote Improvements to Cancer Service Delivery

The Hawke's Bay District Health Board Cancer Services Plan

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1.0 Executive Summary

The Hawke's Bay District Health Board (HBDHB) is responsible for planning and funding health services for its population. This means the HBDHB is tasked with developing a cancer services plan that identifies priorities for action to reduce the incidence and impact of cancer for the population it serves.

The aim of this document is strategic. It is intended to support the HBDHB in planning cancer services over the next 3-5 years in order to meet the needs of the population and to work towards achieving the goals of the New Zealand Cancer Control Strategy (NZCCS)¹, whose overall purposes are to:

- Reduce the incidence and impact of cancer
- Reduce inequalities with respect to cancer

The Goals of the New Zealand Cancer Control Strategy are to:

- Reduce the incidence of cancer through primary prevention.
- Ensure effective screening and early detection to reduce cancer morbidity and mortality.
- Ensure effective diagnosis and treatment to reduce cancer morbidity and mortality.
- Improve the quality of life for those with cancer, their family and whanau through support, rehabilitation and palliative care.
- Improve the delivery of services across the continuum of cancer control through effective planning, co-ordination and integration of resources and activity, monitoring and evaluation.
- Improve the effectiveness of cancer control in New Zealand through research and surveillance.

This plan also further supports the work required to achieve the nine strategies of the New Zealand Palliative Care Strategy².

This plan is based on international and New Zealand guidelines for best practice. It is acknowledged that implementation of this plan will be dependent on the funding available. The cost to developing this plan has not been completely developed but it is recognised that the cost may be greater than the revenue available and prioritisation of the plan recommendations will be required. There is an expectation that funding will be available from the Ministry of Health towards the implementation of this plan.

As well as aligning to the NZCCS, this plan is based on 6 themes developed from the international and national literature including^{3, 4, 5, 6}:

- Multidisciplinary care
- Patient centred care
- Culturally competent care
- Supportive care
- Care coordination
- Safe and high quality care

Recommendations

Leadership

1. Cancer Advisory Group established
2. Cancer Services Plan Coordinator Role established to implement the Cancer Service Plan

Strategic

3. Oncology Services Capacity Review (Clinics plus Facility) to meet projected increase in cancer registrations
4. Define a service delivery model for oncology services in HBDHB
5. Oncology Services Workforce Allocation

Multi Disciplinary Care

6. Multi Disciplinary Team approach developed

Patient Focused, Coordinated Care

7. Tumour Group Co-ordinators established
8. Chronic Disease Strategic Approach Investigated
9. Interagency, collaborative approach to implementing tobacco control and nutrition and physical activity strategies
10. Model for reducing inequalities / prioritise Maori developed
11. Psychosocial and Support Service Delivery Model developed
12. Workforce development to increase specialisation of oncology and palliative care nurses
13. Waiting times for clinic outpatient assessment reduced
14. Promote development of interdisciplinary, hospital-based Palliative Care Team to support care of patients with advanced disease, focusing on appropriate discharge planning from HCS to Primary Care sector / NGO
15. Develop an equitable model for 'Out of Hours' support for patients across the cancer continuum

Data Systems and IT Support

16. Use of Information Technology to improve provider communication across the continuum
17. Data collection and management
18. Clinical Director appointed

Equipment

19. Exploration of options for access to on-site Mammography Unit

2.0 Introduction

2.1 Purpose of the HBDHB Cancer Services Plan

The aim of this Cancer Services Plan is to assist the HBDHB in implementing the New Zealand Cancer Control Strategy in relation to the priorities of reducing the incidence and impact of cancer and reducing inequalities with respect to cancer, and to identify areas where intervention can be improved.

2.2 Background

The New Zealand Health Strategy⁷ states that:

Cancer is the second leading cause of death (27 percent) and a major cause of hospitalisation (7 percent) in New Zealand. There are about 17,000 new registrations of cancer each year, with the highest rates in the middle and older age groups.

There are significant components to the overall disease burden of cancer including physical, social, psychosocial and economic impacts.

There is good evidence that much can be done to reduce the cancer burden and improve cancer outcomes through prevention, early detection and diagnosis, and by management at secondary and tertiary service levels⁸.

It is estimated that more than one third of all cancers can be linked to tobacco use, poor diet, physical inactivity and obesity⁹.

In addition, occupational and environmental factors, family history, alcohol use, sexual activity, infections and exposure to radiation and sunlight can play a large part in developing cancer.

Lifestyle changes, such as improving nutrition and increasing physical activity, may reduce the impact of cancer. Smoking is known to be the main contributing factor to the development of lung cancer. Smoking cessation and reducing the uptake of smoking will not only contribute to a reduction in lung cancer but also have a beneficial effect on other diseases such as chronic lung disease, cardiovascular disease and diabetes.

Early detection and diagnosis improve the survival time in many cancers by either improving the chance of curative treatment or extending survival time with good quality of life. These better outcomes are especially likely with cancers detectable by screening.

Radiotherapy waiting times are reported monthly to the Ministry of Health. Wait times measure the interval between the patient's referral from a medical practitioner to the oncology department, and the beginning of radiation treatment.

Support through diagnosis, treatment and rehabilitation is necessary to reduce the impact of the disease on the individual, their families and immediate communities. If the cancer is incurable patients need to have access to palliative care that is acceptable and appropriate for them.⁸

2.3 Policy Context for Hawke's Bay's Cancer Services Plan

National Cancer Control Programmes

The World Health Organisation's Policies and Managerial Guidelines¹⁰ for cancer programmes advocates taking a patient centred approach by assessing and evaluating cancer services across a continuum of care. The continuum of care is a whole systems approach, focusing on the events that surround patients as they take their journey through the cancer pathway, and the interventions they experience along the way.

The New Zealand Cancer Control Strategy¹ (2003) derives from the New Zealand Government's acceptance of the World Health Organisation's analysis that developing and implementing a national cancer control strategy is the most effective way of controlling and managing a nation's burden of cancer. It is built around the idea of a continuum incorporating the above approach, and this Cancer Services Plan maintains use of a continuum as a common approach.

2.4 Planning Framework

Following the release of the Cancer Control Strategy in August 2003, the Cancer Control Taskforce was established, to produce the New Zealand Cancer Control Strategy: Action Plan 2005-10¹¹ which describes in detail how the objectives of the Strategy will be achieved. The actions identified in the action plan extend across the cancer control continuum, including primary prevention, screening, early detection, diagnosis and treatment, rehabilitation and support, and palliative care.

The Cancer Control Taskforce has considered all of the actions in the Cancer Control Strategy Action Plan and determined that the themes and actions in the following table are high priority intended for immediate implementation.

Establish regional cancer networks.	Implement and evaluate pilot survivorship programmes for children and adolescents.
Expand smoking cessation services and programmes for Maori women.	Develop a workforce plan for cancer control, ensuring consideration of cancer workforce shortages for Maori and Pacific peoples.
Implement Healthy Eating – Healthy Action.	Implement the New Zealand Palliative Care Strategy.
Implement strategies to improve coverage of Breast Screen Aotearoa in areas where the need for increased coverage has been identified.	Plan for capital expenditure on cancer control, including equipment, drugs and new initiatives.
Ensure timely and acceptable access to cancer services by establishing standards.	Apply the Health Equity Assessment Tool (HEAT) to policy and funding decisions regarding cancer control.
Establish multidisciplinary care for cancer patients.	Support Maori-led cancer services where possible and ensure that all mainstream cancer services have a cultural framework for Maori that aligns with He Korowai Oranga.
Pilot studies to map and analyse cancer patient's journey and clinical pathway.	Develop a five-year rolling plan for research relating to cancer control.
Establish groups to develop guidance for children, and adolescents.	Develop a nationalised, standardised clinical cancer data set.

The New Zealand Health Strategy⁷ includes reducing the incidence and impact of cancer as one of the Government's thirteen population health objectives.

The HBDHB's long-term health strategy is to have the healthiest families in New Zealand¹². Their priorities in achieving this vision are:

- Reducing health inequalities
- Child health
- Mental health
- Health of older people
- Cancer
- Chronic diseases

To assist in translating this vision into action, HBDHB are developing a sustainability plan (Project J2015). Project J2015 is a project to develop a blueprint to ensure the DHB is planning for sustainability including planning for facilities and infrastructure, workforce development and models of clinical care delivery. The top planning priorities of J2015 for cancer and palliative care services are in alignment with the recommendations of this plan.

In addition, the recently completed Regional Cancer Control Plan¹³ has identified objectives that facilitate the formation of a regional cancer network that will drive initiatives across the cancer continuum for the Central region. This plan links the HBDHB in with these developments and begins to identify how it can use its involvement to maximise local gains.

In order to establish a platform to achieve these national priorities, HBDHB recognises that they will first need to address the priorities and recommendations from within the HBDHB Cancer Service Plan.

This Cancer Services Plan is also linked with the HBDHB Breast Services Project which focuses on the specific pathway of care for women with symptoms of breast cancer. This is a formal project to streamline the delivery of services for women who have symptoms of or are at high risk of developing breast cancer, and to develop a model for the ideal breast service with recommendations for future service development.

2.5 Consultation/Planning Process

Throughout the development of this plan there has been a rigorous process of engagement with primary care providers, hauora providers, and staff across the DHB provider arm, NGOs, and aged care facilities. This was achieved with face to face meetings and focus groups most often held in participant's environments, and leadership team meetings.

The input of these individuals is acknowledged and appreciated. A complete list is included in **Appendix 6**.

3.0 Population Inequalities in Disease Burden

The underlying principles of health care delivery in New Zealand include the provision of quality health care to all New Zealanders. However, special populations such as Maori, Pacific Island peoples, people from non-English speaking backgrounds, socio-economically disadvantaged groups and people living in rural and remote areas all require special consideration. Children and adolescents with cancer, whilst a small group in terms of numbers, also have specific requirements.

3.1 Maori Health

Cancer has a disproportionate impact on Maori. Incidence and mortality rates for Maori and non-Maori differ for all cancers combined and also for specific cancer sites.

There is significant evidence that Maori need to be made a priority in the re-design of prevention, screening, treatment and support services of many cancers in order to reduce the survival disparity.¹⁴ The reasons for disparities need to be investigated.

The greater preventable cancer mortality among Maori may be attributable to a lack of access to effective and culturally appropriate prevention and treatment programmes, particularly those that focus on smoking, alcohol consumption and screening for cancer of the cervix⁸. Limited information has been available however on the extent to which Maori receive appropriate preventive care. Strategies for improving the delivery of such care by existing health care providers need to be developed.

Services need to be designed for Maori – we need to establish a model with appropriate cultural messaging not just substituting the language.

The following frameworks all emphasise the importance of acknowledging Maori cultural values and beliefs and the importance of whanau in establishing strategies for improving care delivery:

- *He Korowhai Oranga: The Maori Health Strategy*¹⁵
- *Whakatataka: Maori Health Action Plan 2002-2005*¹⁶
- *Healing Our Spirits: Maori Health Plan for Hawke's Bay 2003-2005*¹⁷

The HBDHB has identified two potential areas of focus:

- 1) Improving Maori health by:
 - Acknowledging the right of Maori to equality in health status, and
 - Supporting tino rangatiratanga whereby Maori gain control over factors that influence their health
- 2) Addressing Maori health through DHB activities such as:
 - Developing closer working relations with Maori in the region
 - Involving Maori in decision-making
 - Increasing the numbers and scope of well-resourced Maori health providers
 - Promoting Maori workforce development in both mainstream and by Maori for Maori sectors
 - Encouraging and resourcing the use of traditional Maori medicine

Who takes the lead in developing prevention strategies for Maori in HBDHB?¹⁸
What programmes would Maori require to support health promotion and wellness in their community so that there is increased uptake in early detection activities?
What social research programmes are required to support equity of access to cancer control programmes for Maori?
How should palliative care services be developed in support of Maori?

3.2 Pacific Peoples

Rates of cancer incidence and mortality among Pacific peoples are more difficult to describe than those of Maori because classification of Pacific ethnicity at registration and/or death has been poorly recorded. Analyses that have been undertaken suggest that Pacific peoples also have higher cancer incidence and mortality than European/Pakeha New Zealanders^{19, 20}.

3.3 People from Non-English Speaking Backgrounds

For some cancers, incidence rates are higher among migrants than among the New Zealand-born population. Migrants from northern Europe have greater incidence rates of lung, bladder and stomach cancers, whereas those from Fiji and Vietnam have a greater incidence of cancer of the cervix²¹.

For migrants to New Zealand, many factors may foster exposure to cancer risks and influence the pattern of health service utilisation. In order to address these issues, cancer control initiatives directed at developing culturally appropriate models of preventive health care delivery are required.

3.4 Socio-economically Disadvantaged People

The cancer burden in New Zealand is also unequally distributed according to socioeconomic status²².

Diet, smoking, occupational exposures and utilisation of health care services all play a part in creating these differentials²³. However, existing cancer risk reduction programmes focus on reducing cancer risks in the community as a whole, rather than special groups, thereby failing to focus on specific social and economic factors that predispose disadvantaged individuals to such risks. Additional research is required to establish programmes that have a greater capacity to reduce the prevalence of such risks among socio-economically disadvantaged people²⁴.

3.5 Rural and Remote Populations

Available data do not provide a clear understanding of the need for, and access to, cancer control services in rural and remote areas in HBDHB. Information from the Chatham Islands Health Survey²⁵ showed no significant difference in the percentage with cancer between either males or females from the Chatham and Pitt Islands and the total New Zealand population.

Particular issues that are of concern involve: accessibility of specialist cancer diagnostic and treatment services; accessibility of cancer-oriented support services; and strategies for providing cancer control programs in rural areas that are directed at reducing the risk of melanoma, lung cancer, breast cancer, cervical cancer and cancers associated with high levels of alcohol consumption²⁶.

3.6 Paediatric Cancer

Compared to adult cancer incidence, paediatric cancer incidence may seem low (on average 140 cases per annum), but the cure rate is high (about 70 percent) with good health outcomes over a normal life expectancy in the majority of survivors. Successful treatment of paediatric cancers, therefore, has a greater impact in reducing the loss of potential life years compared to successful treatment in the older population. Treatment times can be extensive and the impact on family and social networks huge. Survivorship brings challenges also with a great need for psychosocial support. The transition from paediatric to adult treatment programmes requires information and support.

4.0 Evidence-based Practice in Cancer Control

There are several issues that are common to all cancer types. For example early detection and accurate diagnosis are crucial to the effective treatment of most cancers. There are many similarities in the management of different cancers and other issues of general concern. The increasing complexity of cancer treatments, together with the necessity for treatment to be based on evidence of best practice, has led to widespread advocacy for clinical practice guidelines and to a belief that existing processes for multidisciplinary consultation should be extended. Other priority areas are palliative care, psychosocial care and the need to increase consumer involvement in all stages of cancer control.

Other countries around the world have long recognised that cancer is a major cause of morbidity and mortality and have developed strategies to address aspects of cancer care. Recurring themes from the literature are^{3, 4, 5, 6, 27, 28, 29}.

- Safe and high quality care
- Supportive/psychosocial care
- Patient focus across the continuum of care
- Multidisciplinary approach
- Care coordination

4.1 Multidisciplinary Care

The cornerstone of best practice in cancer care is multidisciplinary treatment planning and multidisciplinary care. An effective multidisciplinary approach can result in survival benefit, increased recruitment into clinical trials, detection of emotional needs of patients, reduction in service duplication and improved coordination of services.

4.2 Patient-centred Care

Patients should be involved as active participants in care planning and decision making, and wherever appropriate so should their partners, families and carers. Ultimately, any treatment decision rests with the patient or designated person. This requires information and discussion presented in a way that is easily understood, and sensitive to their cultural needs.

4.3 Safe and High Quality Care

Cancer care is complex, involving a range of clinicians with different expertise. To ensure safe and high quality cancer care, it is important that clinicians have the technical skills and experience to carry out those aspects of cancer care they undertake and that there is institutional capacity to support such care, such as equipment, staffing and skill mix.

4.4 Supportive Care

People with cancer have psychological and social needs that are frequently undetected and unmet. This has the potential to result in long term distress. In the context of cancer, supportive care describes all services that may be required to support people with cancer and their carers to meet their physical, psychological, social, information and spiritual needs.

4.5 Care Coordination

The cancer journey is complex and challenging, and it is not uncommon for patients to be seen by many health professionals within and across multiple health services and across different sectors. To ensure patients experience care that is coordinated and integrated over time and settings, services need to consider the range of strategies required to facilitate care coordination.

5.0 Current Service Issues

A summary of the current service issues within the HBDHB is presented here:

5.1 Primary Prevention, Screening and Early Detection

In a climate of limited healthcare resource, there are too many areas of duplication with other disease streams and providers. An example of this is both the Ministry of Health and the Cancer Society has national programmes aimed at health promotion. The HBDHB doesn't contract with the Cancer Society for their health promotion needs so the Cancer Society does their own health promotion.

There are a number of agencies both governmental and non-governmental involved in addressing the same or similar issues each with their own visions and strategies. As well as the Ministry of Health's HEHA Strategy and Cancer Society's Live Smart Programme, there is also Sport Hawkes Bay's He Oranga Poutama Programme with a vision of More Maori, More Active, More Often. The Ministry of Social Development and New Zealand Land Transport are also involved in initiatives to address physical inactivity.

There have been issues around access to colposcopy services as identified in the recent audit and there is work underway to address these. The majority of the work required is associated with the need to improve documentation and record keeping, thus ensuring greater consistency of service delivery.

People on waiting lists and those who do not attend screening/clinic appointments are at risk of not being adequately coordinated. People are transferred across follow-up lists as they move from screening to waiting for their specialist appointment, with the risk that there is no-one providing an oversight as they shift lists. Staff across primary and secondary services voiced their concerns regarding the perception that there are an inadequate number of clinics to address or maintain required waiting times

Given that there is now strong evidence of increasing disparity between Maori and non-Maori in the uptake of screening opportunities and the morbidity from those screening related cancers i.e. breast, cervical cancer, HBDHB needs to examine current marketing packages and the way the population as a whole are encouraged to attend health promotion and screening activities

5.2 Issues From Across the Continuum

There is inadequate psychosocial support for patients as their needs change along the continuum.

General Practitioners and other primary care providers and Non-Governmental Organisations (NGOs) are currently unable to easily coordinate the care of their patients along the cancer continuum because they are unable to 'track' where their patients are at any given time.

There needs to be established communication protocols that include primary care. There is an inconsistency around the way care decisions are communicated to General Practitioners once patients have entered the cancer continuum.

There is lack of involvement of Allied Health and non-Health Care Service providers in the cancer care continuum.

5.3 Diagnosis and Treatment

While many cancer patients receive excellent treatment, services are fragmented. The HBDHB lacks the full range of diagnostic equipment particularly a mammography screening unit, impacting on in-patients who need to be transferred to another provider.

HBDHB does not provide staging diagnostics, leading to the perceived lack of regionally standardised diagnostic protocols, as patients note that they had a CT scan in the HBDHB which then gets repeated at the regional cancer centre.

Again there were anecdotal reports of inconsistencies to timely communication between specialists and General Practitioners, and also between physicians and diagnostic staff.

There is a concern from consumers regarding the level of access to cancer specialists of every type.

Patients in different parts of the district receive varying ease of access to treatment when they want to be confident of receiving what is best for them, wherever they live.

There are issues around transport and accommodation when patients have to leave their homes for treatment. Some of this is related to the Ministry of Health travel policy, some to distances involved and impacts on families.

5.4 Support and Rehabilitation

There is no designated oncology social worker for the Hawke's Bay.

There is a lack of clarity around who to contact within the hospital regarding the co-ordination of transport and accommodation issues in the Hawke's Bay.

There is a lack of knowledge of what support groups are available for people living with cancer in the Hawke's Bay district.

There is no specialist nursing 'Out Of Hours' support for people undergoing cancer treatment.

Experience of cancer care also varies. Some patients say they receive excellent care, with sensitive and thoughtful communication, clear information about their disease and its treatment, and good support when it is needed. Others report being given bad news in a deeply insensitive way, being left in the dark about their condition and badly informed about their treatment and care. Long waits and uncertainty add to their inevitable anxieties.

5.5 Palliative Care

There has never been a palliative care needs assessment completed for the Hawke's Bay so it is difficult to ascertain how much need there is for the service. While Cranford Hospice collects statistical data, there is a lack of consistency across the DHB in terms of data management, so there is no way of knowing what proportion of the need is being met.

Patients who choose not to access hospice care have been disadvantaged by the lack of providers experienced in palliative care.

Discharge planning from Hospital to community for oncology and palliative care patients needs to be collaborative, timely and appropriate.

Patients can be financially disadvantaged by early referrals to palliative care, which means that they are unable to access funded home alterations.

Some palliative procedures are not readily available within the Hawke's Bay.

The difficulty of providing responsive, expert terminal care in the last 24 hours for the person who wants to die at home.

There is frustration around the lack of an appropriate community facility for patients under 65 years requiring long term care.

Current contracts do not allow for the time required for preparation and delivery of clinical education to Health Care Professionals or the community

Lack of standardised protocols around care in the last 24-48 hours of life in the hospital and the community.

Lack of 'Out of Hours' support for community palliative patients not receiving hospice care.

Palliative care admissions to hospital are not currently coded, however there is now work being done to look at this.

There is a lack of Maori health professionals to deliver care to/respond to needs of Maori.

Bereavement follow-up for patients not receiving hospice care is fragile – there is one FTE social worker for the whole HBDHB region. The position covers all community work, not just oncology and palliative care.

6.0 HBDHB Cancer Services Plan

This table outlines the recommendations, impacts and timeframes of the HBDHB Cancer Services Plan. For more detail around each recommendation, refer to **Appendix 1**

Recommendation	Requirements to Act on Recommendation	Associated Costs	Estimated \$ Effect	Likely Budget Source	Time Frame
1. Cancer Advisory Group Established	Agree Terms of Reference Establish ongoing meeting framework Participants attendance at meetings – 10 per year Ensure group is representative of the continuum including a consumer voice (CancerVoices)	Draft Terms of Reference Participation and meeting coordination Meeting costs	Voluntary – except for those who are self employed Pay allowance: \$120 per meeting = \$1200 pa \$50 per meeting = \$500 pa	Additional – MoH Funding	Ongoing from 1 September 2006. Completion of this project is the establishment of the CAG as an ongoing group
2. Cancer Services Plan Coordinator Role established to facilitate implementation of the Cancer Service Plan and improvement of oncology services across HBDHB	Appointment of Cancer Services Coordinator (CSC)	Salary 1.0 FTE	Additional Costs may be shared with other partners	To be confirmed MoH funding following approval of the plan	Fixed term position from 1 September 2006
3. Oncology Services Capacity Review to meet projected increased in cancer registrations	Business case re oncology facilities options	Project Team time – facilities, project manager	Feasibility/Business Case Phase (\$100k capital) Construction Phase \$2,000,000 estimate (based on current costs of \$3000/m2 & 15% project fees)	Capital Programme	
4. Service delivery model for oncology services in HBDHB defined	Analysis yields description of service delivery model	Project Team member time (including clinicians, PF&P) Project Manager Time	4 months (Project Team + CS Coordinator as PM)	Operational budget (Team) and CSC Role budget	
	Service restructure or reorganisation phase	Project Team and Project Manager Time	4 months (Project Team + CS Coordinator as PM)	Operational budget (Team) and CSC Role budget	Commencing 1 September 2006
		Additional ongoing operational requirements arising (<i>including clinic time, locum cover for GP and potential capital expenditure</i>)	To be confirmed	To be confirmed	2006-07

Recommendation	Requirements to Act on Recommendation	Associated Costs	Estimated \$ Effect	Likely Budget Source	Time Frame
5. Oncology Services Workforce Allocation Review	Review of Staffing Requirement recommendation to MidCentral DHB and/or the Central Regional Network collegial ties to MidCentral with service provision in HBDHB	Adjustments to Staff Allocations	Increase to 1.0 FTE Medical Oncologist (% \$208,000)	To be confirmed Conjunction with MidCentral and regional network view	
6. Multi Disciplinary Team (MDT) approach developed	Project to determine model	Project Team time + project leader	? 1 month (Project Team + CS Coordinator as PM)	Operational	October 2006
	Changes in procedures	Someone to write procedures	? 1 month CS Coordinator	CS Coordinator Salary	November 2006
	MDT Coordinator	? New role, ? role change	? Additional roles or functions	To be confirmed	November 2006 onwards
	Work practice changes surgeons x 6 (1 day/month), physicians x 6 (1 day/month) case coordinators, diagnostic staff, medical/radiation oncologist palliative care	HR, med contracts		Operational budget addition	November 2006 onwards
7. Tumour Group Coordinators established (priority roles)	Project to establish model for tumour coordination role Establish lead provider Recruitment and selection changes in procedures	Project Team and Project Manager time ? Role change, ? new role	4 months (Project Team + CS Coordinator as PM)	Operational + CS Salary	
		Breast Cancer Care Coordinator, Colorectal and Respiratory Cancer Care Coordinators	To be confirmed (estimate \$104k per year FTE salary)	Operational budget Current salary plus additional to be confirmed	
8. Chronic Disease Strategic Approach Investigated	Social marketing strategy that looks at social determinants of health				
9. Continued commitment to interagency, collaborative approach to implementing tobacco control and nutrition and physical activity strategies					
10. Model for reducing inequalities/prioritise Maori	Maori Health Action Group perform HEAT analysis on cancer services across the continuum	Contract people in for specific analysis work	\$10,000	Special project budget to be confirmed	
11. Psychosocial and Support Service Delivery Model developed	Project to establish model Changes in procedures Establish lead provider	Project Team member time (including clinicians, PF&P) Project Manager Time	\$79,915 (Social Worker Salary)		

Recommendation	Requirements to Act on Recommendation	Associated Costs	Estimated \$ Effect	Likely Budget Source	Time Frame
12. Workforce development to increase specialisation of oncology and palliative care nurses	Learning & Development plan for workforce Provider agreements with EIT, MidCentral DHB, Cranford Hospice	Training costs to be confirmed	To be confirmed		
13. Waiting times for clinic outpatient assessment reduced	FSA – Internal referral management processes (currently being reviewed) Radiotherapy – MidCentral has obligations for this Chemotherapy – Service agreement between MidCentral and HBDHB has wait time criteria built in	No additional costs noted			
14. Discharge planning from HCS to Primary Care sector/NGO for cancer and palliative care patients	Hospital palliative care team	No additional costs noted			
15. Equitable model for out of hours support for patients across the cancer continuum					
16. Use of Information Technology to improve provider communication across the continuum	Access for NGOs to IBA Access to Lantis with associated training costs. Training around reporting possibilities. Use of telemedicine Establish continuum communication protocols that include timely links to patients GP				
17. Data collection and management	Participation in the National Dataview Management Project on cancer information management				
18. Clinical Director appointed	Regional appointment	Salary costs additional to current	To be confirmed	Operational budget addition	1 October 2006 ongoing
19. Exploration of options for access to onsite mammography unit	Project Team, PF&P, HBR	Capital committee approval RFP/Purchase and Implementation Ongoing operational costs	Siting of machine, staffing, maintenance \$780,000		

6.1 Timeline

It is expected that with the appointment of a cancer services coordination role by September 2006, it will be possible to deliver the recommendations within the 2006-2007 year. There will be further ongoing plan evolution

6.2 Financial

It is acknowledged that implementation of this plan will be dependent on the funding available. The cost to developing this plan has not been completely developed but it is recognised that the cost may be greater than the revenue available and prioritisation of the plan recommendations will be required.

It is expected that the Ministry of Health will release funding for the implementation of this plan.

6.3 Next Steps

- (i) The HBDHB Executive Leadership Team (ELT) accept the plan as the first annual HBDHB Cancer Services Plan and note the recommendations
- (ii) ELT approve the immediate establishment of the Oncology Advisory Group.
- (iii) ELT approve the appointment of a Cancer Services Plan Coordination role in order to implement the recommendations of the plan dependant on funding from Ministry of Health.

This Plan has been developed through extensive consultation with cancer clinicians, cancer patients and others. It will need to be implemented in the same way, and in the Oncology Network Group, clinicians, managers, patients and other partners will need to work together if the ambitions in this plan are to be realised. Bringing together this group, and drawing on a wealth of wider expertise from across and beyond the DHB, will reflect the partnership needed at all levels to drive forward implementation.

6.4 Setting Priorities and Future Directions

Cancer control in Hawke's Bay encompasses a broad range of activity and effort. A consideration of specific cancer types, the stages along the continuum of care and other categories of health system activity that are relevant to cancer control have identified the complex nature of this activity, as well as gaps and problem points in the system. This discussion suggests a number of areas where there are opportunities to improve cancer control in HBDHB.

It is important for those involved in cancer control to recognise the role and rights of consumers in all its aspects. People who have cancer, together with their families and carers, must be involved as far as practicable in all phases of treatment, both curative and palliative, as well as having their social and psychosocial needs addressed.

Preventive and screening programs must be accessible as well as effective and should attempt to reach all population groups. This will involve further research, development and implementation of recruitment and targeting strategies specific to Maori and other priority populations with higher rates of various cancer types.

All individual, environmental and social preventive strategies should be tested to determine their cost-effectiveness in achieving the desired outcomes. Current and any proposed screening programs should be developed in a way which ensures cost effectiveness and sustainability, as well as acceptability by target groups and the whole community.

Recommendations in Detail

There is no one 'owner' of cancer services in the HBDHB. DHB planning staff and medical and surgical business managers for service delivery have responsibility for their areas within the service, but there is no one organisation that provides an entire continuum focus on people as they travel the cancer journey.

The closest we have is The Cancer Society, whose mission is to minimise the impact of cancer through evidence based health promotion and research, advocacy, information and support. (Cancer Society website, May 2006) As such, it is clear that they have a vital role in the planning, developing and delivering of cancer services in HBDHB.

Recommendation 1:

It is recommended that the HBDHB establishes an integrated approach to service delivery, which focuses on delivery the right treatment and support to patients, as early as possible in their cancer journey.

Such a service could be represented by a District Cancer Advisory Group who would comprise strategic representation from the community, Iwi, primary and secondary providers and the DHB Funding, Planning and Performance Division. Their purpose would be to provide leadership, advice and support on the development, delivery, monitoring and evaluation of all cancer services strategies across the district.

Recommendation 2:

In order to implement the changes identified in this plan, it is recommended that HBDHB establishes a Cancer Services Plan Co-ordination Role. This role would include Project Management skills, and working with service providers to establish the changes.

In order to meet the projected 33% increase in cancer registrations by 2021^{30, 31}, HBDHB needs to decide what level of oncology service to provide for the people of Hawke's Bay. Midland Region³² has looked at classifications of cancer units using the Australia Health Department (1992) Guide to the Role Delineation of Health Services³³. It is recommended that HBDHB investigate these classifications further, with the view to adapting them for local use and supporting strategic decision making processes around the development of oncology services within the Hawke's Bay.

In recent years there has been little emphasis on maintaining or developing oncology facilities. With the projected increase in patient numbers, it will be necessary to both maintain and develop appropriate facilities. Larger outpatient clinic facilities may be required. If there are to be more staff, more office facilities will be required.

Recommendations 3,4,5 and 13:

It is recommended that the HBDHB undertake an Oncology Services Planning Exercise that would include:

- (i) Definition of a service delivery model for oncology services
- (ii) An Oncology Services Capacity Review, looking at oncology facilities
- (iii) Oncology Services Workforce Allocation

The AMWAC³⁴ Report recommends that Medical Oncologist requirement planning should be based on one FTE per 180 new patients per annum and an expectation that the referral to oncology will be at 44% of cancer cases in 2006 and 50% by 2011.

Radiation oncology planning should be based on one FTE for every 200-220 treatment

courses per year. This model is based on linear accelerator courses and does not reflect local requirements for specialist assessment and follow-up appointments.

Any review should also evaluate future requirements for oncology nursing staff, taking into account the different aspects of their roles which include attending clinic appointments and administering oncology treatments.

(iv) Oncology Continuum Clinic Capacity Review

Multidisciplinary care relates to the team, communication, the full therapeutic range, standards of care, and involvement of the patient and their General Practitioner²⁶.

Multi service meetings are in place for some of the tumour groups in HBDHB but are not formalised. Gastro-Intestinal, breast, respiratory, general surgical, ENT, gynaecology and urology are all establishing multidisciplinary meetings. However, not all patients are discussed and not all surgeons attend. Multidisciplinary team planning is now considered best practice for oncology services and is recommended as a priority by the surgeons and diagnostic staff at the HBDHB.

Recommendation 6:

Therefore it is recommended that HBDHB develop multidisciplinary approaches to treatment planning and ongoing service improvement, with oncology involvement. Multidisciplinary coordinators will be required for effective and efficient meetings.

Care coordination via tumour stream frameworks is needed to ensure that patients are supported through the cancer continuum. Care coordinators will facilitate the delivery of culturally appropriate care by linking with Maori Health providers. This, together with cultural models of primary prevention methods and screening and early detection aimed specifically at Maori, will help to address the higher mortality rates from cancer for Maori. HBDHB needs to examine the use of effective social marketing techniques in the re-design of health promotion and screening services that prioritise Maori. HBDHB needs to understand and apply appropriate cultural messaging to services in order to make them meaningful for Maori.

Recommendation 7:

It is recommended that options are identified e.g. tumour group coordinators for improving links between community, primary care services and provider arm services enabling a patient focus across the continuum, ensuring that physical, cultural and psychosocial aspects of care are addressed.

Similar systems are needed for people diagnosed with any chronic disease, who spend at least 90% of their disease journey in the community being cared for by a primary health care provider with specialist consultation. For example, the information system requirements in treatment facilities and for effective communication between primary, secondary and tertiary health care professionals are the same. So are the needs for evidence based clinical practice guidelines and protocols.

Recommendation 8:

Therefore a chronic disease strategic approach to cancer, cardiovascular disease, chronic lung disease and diabetes makes both scientific and economic sense.

Recommendation 9:

A coordinated approach to implementing tobacco control, nutrition and physical activity strategies needs to be a priority for the DHB. There needs to be a focus on achieving and improving interagency commitment to these activities.

Recommendation 10:

HBDHB develop a model for reducing inequalities and prioritising Maori.

Recommendation 11:

HBDHB develop a model for of psychosocial assessment, support and referral services for people with cancer and their family/whanau.

Recommendation 12:

HBDHB develop a collaborative, workforce development plan to increase specialisation of oncology and palliative care nurses.

Recommendation 14:

Promote the development of an interdisciplinary, hospital-based palliative care team to support care of patients with advanced disease incorporating links to community palliative care services, focusing on developing a model for appropriate discharge planning.

Recommendation 15:

Develop a model for equitable access to specialist nursing Out-of-Hours support for patients across the cancer and palliative care continuum.

General Practitioners and other primary care providers including Non-Governmental Organisations (NGOs) are currently unable to easily coordinate the care of their patients' along the cancer continuum because they are unable to 'track' where their patient is at any given time.

HBDHB needs to establish communication protocols that include primary care. These need to be activated in an uncomplicated, timely manner.

Telemedicine is a much needed resource given the dispersed nature of the HBDHB and the distance from the regional cancer centre. The ability to provide advice and consultation via a televised network could be an important resource for Hawke's Bay. The ability to seek a second opinion and gain medical advice with information available visibly to assist clinicians is a valuable tool.

Recommendation 16:

There needs to be an assessment of the information technology needs for an integrated oncology and palliative care service across providers for the HBDHB, with an approach that allows access and information to be shared appropriately.

Currently there is no system to collate clinical or contract data across the DHB. There is also no ability to monitor performance or recurrence rates across treatment modalities. Improving and maximising the use of data is an essential tool in decision making.

Recommendation 17:

At a minimum, HBDHB needs to participate in the National Dataview Management Project on cancer information management to ensure that the needs of the DHB are met.

It is essential to ensure that there is Clinical Leadership of cancer services across the district. A director of cancer services should have responsibility for the development of cancer services across the continuum in accordance with best practice. It is recognised that this would most likely be a regional appointment with links to each of the Central Region DHB's Clinical Directors.

Recommendation 18:

HBDHB recommend that a Clinical Director position be established.

The HBDHB no longer has a mammographic screening unit leading to possible access issues for women. A Capital Budget Application was performed in 2005 which showed that the Hawke's Bay Regional Hospital had neither the capacity nor the capability to currently provide this service. There are currently three units in the Hawkes Bay, owned by Hawke's Bay Radiology. Two are sited in Hastings and one in Greenmeadows, Napier so it would be difficult to argue lack of access. There is also a mobile unit that covers breast screening in Wairoa.

However in order to achieve the radiology department's vision of the development of a full diagnostic capability, there are issues for the DHB to consider especially regarding the siting of any future mammography unit, the workforce development / employment required to meet best practice recommendations around reading the results, the type of machine i.e. digital or film-based, and the impact of purchasing a machine on the capital expenditure plans for the radiology unit. There is also a possibility of contracting the service to HBR whilst siting the machine within the HBDHB.

Recommendation 19:

Therefore the recommendation is that the HBDHB continues to pursue the business case around mammography screening being developed within Hawke's Bay Regional Hospital.

The New Zealand recommendation that 50% of patients with cancer should have access to radiation therapy has significant impact on the radiation therapy resource need. This will be managed by the oncology service at Mid-Central, however, given the projected rise in numbers of cancer diagnosed, there is the need for HBDHB to consider radiation therapy in their strategic planning.

Supporting Information for HBDHB Cancer Services Plan using the New Zealand Cancer Control Strategy as a Goal-Based Model for Service Improvement

Reduce the Incidence of Cancer through Primary Prevention

Cancer prevention is an important element of the cancer control strategy. It involves minimising or eliminating exposure to carcinogenic agents. It is estimated that at least 50% of the cancers that will be diagnosed over the next twenty years can either be prevented or detected early before becoming a serious health problem^{5, 30}.

Research has also shown that the period between behaviour change and lowered cancer risk differs from other diseases. While the risk of coronary heart disease is cut in half after only one year of quitting smoking, ten years later, depending on how long an individual smoked, his or her risk of developing lung cancer is still higher than for people who never smoked.

Priorities and systems approaches to the control of chronic diseases, however, are expected to be more effective and cost effective than tackling cancer on its own. For example, the integrated prevention of cardiovascular disease, cancer, chronic lung disease and diabetes, which share some or all of the common risk factors of tobacco use, unhealthy nutrition, physical inactivity and alcohol abuse is being trialled in several countries overseas.

National screening programmes for these chronic diseases, whether the screening test is for cervical cancer or hypertension, require conceptually similar systems. Similar systems are needed too for people diagnosed with any chronic disease, who spend at least 90% of their disease journey in the community being cared for by a primary health care provider with specialist consultation. For example, the information system requirements in treatment facilities and for effective communication between primary, secondary and tertiary health care professionals are the same. So are the needs for evidence based clinical practice guidelines and protocols. Therefore a chronic disease strategic approach to cancer, cardiovascular disease, chronic lung disease and diabetes makes both scientific and economic sense.

Reducing Smoking

Smoking is the biggest single preventable risk factor for cancer. And it disproportionately affects those already disadvantaged by poverty³⁵.

People in Hawke's Bay are more likely to smoke than the national average – this applies to all gender and ethnic groups but Maori in Hawke's Bay have one of the highest smoking rates in New Zealand.

Smoking cessation and reducing the uptake of smoking will reduce lung cancer³⁶. Stopping smoking will also reduce the incidence and impact of other diseases such as cardiovascular disease, chronic lung disease and diabetes

Nutrition and Physical Activity

A Healthier Diet – The impact of nutrition and physical activity in the prevention of obesity, cardiovascular disease, diabetes, cerebro-vascular disease and some cancers is internationally recognised. It is less well known that a poor diet is the second largest risk factor for cancer. Increasing fruit and vegetable consumption is the second most effective strategy to reduce the risk of cancer, after reducing smoking³⁷.

People in Hawke's Bay are less likely to eat the recommended daily vegetable and fruit intake than the national average.

The national "five plus-a-day" programme will support initiatives to improve access to fruit and vegetables. The Health Promoting Schools Programme and the Fruit in Schools Scheme will also support this initiative. Live Smart is a national Cancer Society initiative that aims to "Stack the Odds in Your Favour" against cancer by encouraging people to:

1. Get heaps of activity in your life
2. Eat lots of fruit and vegetables and...
3. Keep an eye on your weight. LiveSmart website, August, 2006.

In Hawke's Bay there is a consistently higher prevalence of obesity (24.5% of adults) than the corresponding national average.

Raising Public Awareness

There needs to be more and more accessible, information to help people recognise signs and symptoms that could be cancer, so that they can seek medical advice early, when treatment is most likely to be effective.

Although more women now seek early medical advice about symptoms of breast cancer, for example, too many people are too uncertain or too embarrassed to consult their doctor about bowel symptoms, or rectal bleeding, even though there are good prospects of recovery from bowel cancer if it can be treated at an early stage³⁸.

The greatest opportunity for reducing modifiable cancer risks lies in a population-based approach. This approach uses comprehensive strategies to increase knowledge among the public and health professionals and creates supportive environments that reinforce positive behaviour change across an entire population. Elements of a comprehensive strategy include research, policy change, collaborative partnerships, targeted media campaigns and media advocacy, educational and community-based programmes, and monitoring and evaluation mechanisms³⁹.

HBDHB needs to look at what social marketing techniques would be applicable for the area and use them to identify and then re-design health promotion and screening services to prioritise Maori. There is a need to employ appropriate cultural messaging and not just change the language.

The system for the primary prevention of cancer is broadly-based and involves many collaborators including the Hawke's Bay Cancer Society, HBDHB, primary care providers, educational institutions, workplaces, environmental organisations, advocacy groups and coalitions, multiple government sectors and others.

A coordinated approach to implementing tobacco control, nutrition and physical activity strategies needs to be a priority for the DHB. There needs to be a focus on achieving and improving interagency commitment to these activities.

Action to tackle smoking and poor diet will only be effective if the underlying causes are also tackled. Poverty, unemployment and other broader causes of ill health are linked to cancer too, and collaborative action across sectors to tackle health inequalities will in time have an impact on cancer⁴⁰.

Ensure Effective Screening and Early Detection to Reduce Cancer Morbidity and Mortality

Detecting Cancer Earlier

The purpose of screening is to detect cancer or cancer precursors early, before they present with symptoms, leading to early detection, more effective treatment and a decreased likelihood of death. The purpose of cancer screening is to reduce mortality rates for populations who access screening. Improved quality monitoring of cancer screening is possible in the Hawke's Bay with the establishment of better systems for data collection and assessment.

Improving Cancer Services in the Community

General Practitioners and community nurses play a crucial role in helping people reduce the risks of cancer, in promoting early detection and fast referral for investigation when necessary, in providing support for patients and their families in living with cancer, in support for patients who are dying, and in support for their carers in bereavement³⁷.

Most general practice prevention however, is described as opportunistic, despite the fact that 82 per cent of people visit their general practitioners at least annually⁴¹. In some practices, patients are contacted for specific preventive and screening procedures, but this is sometimes complicated by the limited use of nurses in some practices and because individuals are not always linked to particular general practitioners. This presents a challenge for quality assessment. Organised screening programmes improve factors such as the recruitment of participants, quality assurance, retention of participants (i.e. regular attendance for screening) assessment procedures and the time to investigate abnormal screens, whether benign or malignant, and patient outcomes.

Strategies that can overcome barriers to cancer prevention in general practice include:

- Mass media campaigns;
- Distribution of pamphlets in general practice waiting rooms;
- The adoption of practical, patient-centred general practitioner guidelines;
- Audit of medical records with feedback;
- Visits from practice facilitators to help set up a preventive care system;
- The use of inexpensive, reliable, fast and easy to use information systems about patients' individual risks and cost-effective management alternatives; and
- General practitioner input into planning and developing appropriate roles for general practitioners as part of all public health cancer programs.

Ensure Effective Diagnosis and Treatment to Reduce Cancer Morbidity and Mortality

Maximising the effectiveness of treatment requires that effective forms of treatment are made available and delivered correctly to all those who need them. To maximise the societal benefits of cancer treatment, active steps must be taken to optimise the quality of care and ensure adequate access to care.

Redesigning Services

Patients are still waiting too long for some appointments. There remains a fragmentation in services that don't communicate well with each other. New approaches are needed to make the best use of skills in the cancer workforce.

An example may be for cancer services to begin pre-planning the different steps between referral and treatment for different cancer types. This could mean that arrangements for individual patients can be pre-scheduled and pre-booked; offering all cancer patients the certainty of knowing what is to happen next, and when.

We also need to ensure those services are of top quality and that every cancer patient gets the most appropriate treatment. We need a programme of guidance setting standards for effective cancer services; the funding to put this guidance into practice; and new systems to monitor implementation and provide assurance for patients and the public.

It is recommended that options are identified for improving links between community, primary care services and provider arm services enabling a patient focus across the continuum, ensuring that physical, cultural and psychosocial aspects of care are addressed.

Cancer Treatment

Development of the cancer workforce will mean care is delivered by specialist teams in line with evidence on best practice.

Medical Oncology and Haematology

Key issues affecting medical oncological and haematological treatment centres are²⁰:

- Inequity in access throughout New Zealand to particular cancer drugs and treatments. In the absence of a nationally consistent process for assessing and prioritising new drugs and treatments, individual cancer treatment centres decide which drugs are used. Cancer treatment centres state that current funding does not cover new drugs. Some can access new drugs through clinical trials, but other centres are left without access. There is also the issue of patients who are prescribed unfunded drugs, then return home to their DHB of origin who does not provide access to those drugs.
- Variation in the availability of data relating to incidence, cancer type, treatment and outcome measures. There is no national approach to information management by the six cancer treatment centres, although this is being addressed through the national dataview project. This may also be one of the areas addressed by the regional network
- Difficulty in recruiting and retaining skilled staff such as pharmacists, oncologists and specialist cancer treatment nurses.
- 1.6 FTE medical and haematology oncologists per 100,000 population (1.0 to 1.1 FTE medical oncologist, 0.5 to 0.6 FTE haematologist).
- Each clinical FTE medical oncologist seeing 180 new patients per year based on AMWAC³³ recommendations.

Radiation Oncology

The key issue for radiation oncology patients in HBDHB is the increasing need for access to services, particularly for megavoltage external beam radiotherapy, that will ensure they do not experience prolonged waiting times to start radiation treatment. The reasons for the need to increase radiation treatment capacity are:

- Increasing cancer incidence
- Population growth
- Increased patient referral from screening and early detection programmes
- Increased utilisation of radiation treatment for more indications²⁰.

Based on AMWAC³³ recommendations, each Radiation Oncologist FTE should plan to see 334 new patients per year and oversee 200 treatment courses per year.

Oncology Nursing

Nurses assess, plan and intervene with care elements that address multidimensional needs of those faced with cancer. The quality of the care is influenced by the care delivery model in important ways and the expansion of nursing roles is required to meet the increasing needs of patients across the continuum of care.

It is difficult to find recommendations around workforce development for chemotherapy nurses. The Midland Region Report accepts a ratio of one nurse to 3.5 patients per shift. Given the projected increase in the number of cancer registrations and therefore people requiring treatment, there needs to be some work done around predicting chemotherapy volumes in order to plan the number of chemotherapy nurses and also the number of chemotherapy chairs required for the HBDHB service.

Facilities

Oncology centres are traditionally stand alone buildings on hospital sites because of the requirements for the siting of radiation treatment machines and ancillary equipment. Services provided within oncology centres include medical oncology, planning, simulation, radiation treatment, administration of cytotoxic drugs and outpatient clinics. In some services, haematology and palliative care clinics are included in the service.

In recent years there has been little emphasis on maintaining or developing physical oncology facilities. It will be necessary to both maintain and develop appropriate facilities to allow for the projected increase in patient numbers. Larger outpatient clinic facilities will be required. With more staff, more office facilities will be required. Indicative costs for doubling the current floor size of Villa 6 are \$2million. This cost is based on \$3000 per square metre with 15% project fees. It does not include the development of future treatment options such as planning for linear accelerator installation.

Paediatric Oncology

Following recommendations in *Through the Eyes of a Child*⁴², the National Review of Paediatric Specialty Services, a National Paediatric Oncology Steering Group has been established. HBDHB responsibilities are to participate in the development of the following:

- The establishment of a child cancer registry
- Centralised data storage and analysis
- Professional support for all professions involved in child cancer
- Central protocol review and treatment guidelines
- Links with and advice on palliative care, travel, accommodation and late effects clinics

Improve the Quality of Life for those with Cancer, their Family & Whanau through Support, Rehabilitation & Palliative Care

With the increase in predicted cancer cases, there should be the option to increase the amount of service delivered from the Hawke's Bay. This would decrease issues relating to travel from Hawke's Bay to the Regional Cancer Centre in Palmerston North and improve local access. However it should be recognised that the Regional Cancer Centre would remain the central point of cancer services for the region and some services would still only be available in Palmerston North. Staff based outside the regional centre would be linked to the central point for peer review, professional development, and continuing education.

Supportive Care

Concerns have been raised by consumers about the apparent lack of recognition of the need for supportive care in cancer control. They emphasise the need for cancer specialists to provide appropriate and adequate counselling and support, including being offered adequate counselling, access to support groups and desired practical assistance. Such psychosocial support has been found to have beneficial effects on the patient's quality of life, emotional adjustment, social functioning, knowledge levels, coping skills and even their disease and treatment related symptoms (NHMRC 1995^{43, 44, 45, 46}).

Supportive care is an 'umbrella' term for all services, both generalist and specialist, that may be required to support people with cancer and their carers'. It can include self-help and support, information, psychological support, symptom control, social support, rehabilitation, spiritual support, palliative care and bereavement care. Supportive care is required throughout the diagnostic, treatment and follow-up phases of care.

In the context of cancer, supportive care needs include:

- Physical needs (for example, pain, fatigue)
- Psychological needs (for example, anxiety, distress)
- Social needs (for example, practical supports, carer needs)
- Information needs (for example, regarding diagnosis, prognosis, types of treatment)
- Spiritual needs (for example, addressing hopelessness, despair).

Providers of Supportive Care

Supportive care is provided by generalist and specialist health services as well as community services. All members of the multidisciplinary team have a role in the provision of supportive care. In addition, community capacity to support people with cancer makes an important contribution to supportive care. This includes support from family, friends, support groups, volunteers and other community based organisations.

As a specialist service, palliative care may provide many of the elements of supportive care; however, palliative care also includes specific areas of expertise that may be required, such as unresolved symptoms, and complex psychosocial, end-of-life and bereavement issues.

Achieving Supportive Care

An important step in the provision of supportive care services is to identify, by routine and systematic questioning of the patient and family, views on issues they require help with for optimal health and quality of life outcomes. Reassessment of their needs is not a 'once only' incident because a person's needs change along the disease trajectory⁴⁷.

Establishing a Supportive Care Model

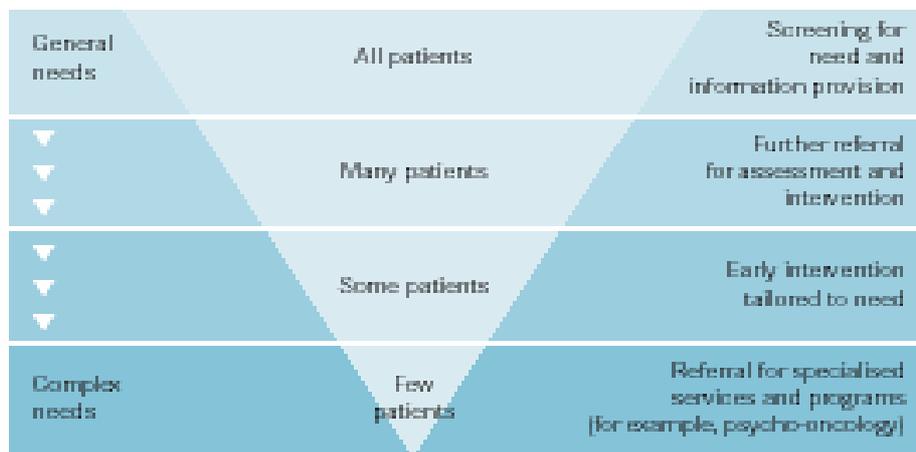
A supportive care model should recognise the variety and the level of intervention required at each phase and be specific to the individual. Such a model (see Figure 2) targets the type and level of intervention required to meet patients' supportive care needs. While there needs to be provision of general information to all patients, only a few patients will require specialised intervention⁴⁸.

As supportive care is provided by a range of services, it is important the following are considered in ensuring cancer patients have access to supportive care:

- Processes that assist the identification of patient, family and carer supportive care needs.
- Clear referral pathways to specialised supportive care services.
- Adequate staff training in identifying and responding to supportive care needs.
- Promotion of supportive care as an important element of cancer service delivery.

Supportive Care Model

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Psychosocial Care

It appears that cancer patients in HBDHB are largely satisfied with the quality of technical care they receive, but less satisfied with other aspects of their care, including communication and supportive services.

Consumer groups argue that many of their concerns relate to an undue emphasis placed on treating the disease resulting in social, emotional and practical needs not being considered. Research tends to support this argument, revealing high levels of physical and psychosocial problems experienced by cancer patients (in press^{46, 47}). The provision of information about tests, treatment and prognosis is also an issue.

There is a growing awareness that patients should be treated as active participants in their health care.

Research suggesting that patients do better when involved in the decision-making process at their desired level, highlights the need for doctors and patients to communicate effectively in this area⁴⁹.

Patients have indicated that they do not know enough about the possibility of the cancer spreading, dealing with fear of potential pain and suffering, coping with anxieties relating to having treatment, and keeping up with work commitments. Doctors tend to underestimate the

amount of information their patients desire and they overestimate the amount of time spent providing that information⁵⁰.

Palliative Care

Effective palliative care makes an important contribution to reducing the cancer burden. The New Zealand Palliative Care Strategy proposes a:

“Systematic and informed approach to the provision and funding of palliative services through the implementation of the following vision: all people who are dying and their families/whanau who could benefit from palliative care should have timely access to quality palliative care services that are culturally appropriate and provided in a co-ordinated way”².

Palliative care services provide physical, emotional, psychological and spiritual support for patients and their families facing a life-threatening illness. In New Zealand, approximately 80–90 per cent of people who use palliative care services have a diagnosis of cancer⁵¹.

In New Zealand, palliative care has emerged as a specialised field in the health care system, with significant growth in the number and type of palliative care services available. Currently, however, there is considerable variation in the range and quality of these services. Palliative care services are providing more services than they are funded for, and not all people requiring palliative care have been able to access a consistent range of high quality and appropriate services.

To further strengthen the implementation of the New Zealand Palliative Care strategy within the HBDHB, a much broader view of palliative care services is needed. Not all people who are terminally ill will need or want specialist palliative care services, but many will still expect considerable support from health service providers. Increasing the palliative care workforce is not sufficient to meet the increasing need.

As the specialist palliative care provider, Cranford Hospice, will lead and coordinate the development of the Palliative Care Strategy throughout Hawke’s Bay.

The HBDHB is responding to new initiatives funded by the Ministry of Health relating to Palliative Care and Cancer Control. One of these initiatives will be the establishment of Palliative Care teams in the hospital setting. This is an example of a collaborative initiative between Healthcare Services and Cranford Hospice. These two organisations, working in partnership should be able to meet most of the palliative care need in the community.

The Palliative Care Network Group which is expected to be established under the Palliative Care Implementation Project will be examining ways to improve access to high quality palliative care; continuity of care for all terminally ill people; enhanced options for treatment at home, hospital or hospice; and making palliative care an integral part of the health care system. This will be achieved by the improved communication and cooperative planning by all sectors.

Development of a Consumer Network

There is the need to establish a local consumer forum. Such a forum would aim to foster a local network of consumers and facilitate their active participation in cancer control. Consumers would be concerned with prevention, treatment and palliation of cancer and they would advise, implement and monitor the application of the Cancer Service Plan through their inclusion as consumer representatives in the proposed CAG.

A consumer charter^{6, 5} could be developed that embodies principles including consumer involvement in decision making; the right to an informed choice; care which takes account of physical, social, emotional and practical concerns; and equity of access to information and

resources. This charter could be incorporated into accreditation and quality assurance programs of appropriate services and would be promoted through cancer networks, professional colleges, hospitals, research bodies and incorporated into funding guidelines for services. Such a charter could ensure comprehensive consumer participation in all aspects of cancer control.

There is already a national forum, Cancer Voices NZ Charitable Trust, (CVNZ) which was formed in July 2004. CVNZ foundations lie in the firm belief that partnership between people affected by cancer and health professionals is key to improving cancer services, influencing and ensuring that the real issues are raised on both local and national levels.

The local branch needs to be invited to participate in the proposed CAG.

Living with Cancer

We want patients and their families to be confident that they will receive the information, support and specialist care they need to help them cope with cancer, from the time that cancer is first suspected throughout the subsequent stages of the disease. Good communication between health professionals and patients is essential.

The Plan will recommend new joint training across professions in communication skills. It should be a pre condition of qualification to deliver patient care that staff are able to demonstrate competence in communication with patients. And for cancer we shall give staff additional training in communication skills, and in the provision of psychological support. We will ensure that high quality written or other forms of information are available³.

Improve the Delivery of Services across the Continuum of Cancer Control, through Effective Planning, Co-ordination and Integration of Resources and Activity, Monitoring and Evaluation

Workforce Planning

In the case of healthcare the fundamental purpose of workforce planning is to ensure that there is sufficient staff available with the right skills to deliver high quality care to patients. It is an activity done to support patient care and has the patient and their family/whanau, as the consumers of services, at the centre of the planning process.

The HBDHB has recently introduced a workforce development consultant role to overview and establish appropriate emphasis to the training and development environments throughout the DHB region. This highlights a fresh focus on strategies that are regional and encompassing of the health sector, with higher concentration on effective partnerships and inclusive development. (See **Appendix 4**)

Safe and High Quality Care

Credentialing is a formal process for verifying qualifications, competence and performance of individual clinicians as well as defining their scope of practice within a specific health service⁴. The process takes into account the skills and ability of the clinician as well as the capacity of the institution to support the clinician's practice.

This has particular relevance to clinicians working in the area of cancer care. Cancer care is complex for a number of reasons. These include⁶:

- The large number and type of cancers that vary greatly in their pathology and management.
- The range of clinicians with different professional expertise (medicine, nursing, allied health) that are involved in care.

- The range of specialities for specific treatment modalities, such as breast or colorectal surgeons, radiation and medical oncologists, breast care nurses.
- The life-threatening nature of many cancers and the serious complications and side-effects of some treatments.
- The advances in technology and research that are changing best practice care at a rapid pace.

In the Hawke's Bay, the complexity of cancer care poses specific challenges for health professionals working in the area of cancer. The large distances between health services and the relatively low numbers of complex cancers that will be seen at individual health services or by individual health professionals require that innovative approaches to care be developed. These include developing links between health professionals and multidisciplinary teams and initiatives such as the expansion of telemedicine, specific mentoring and upskilling programmes.

For patients to have access to safe and high quality services, it is important that professionals working in the area of cancer care ensure:

- They have the necessary skills to carry out those aspects of cancer care they undertake and there is institutional capacity to support such care (for example, equipment, staffing and skill mix)
- They have clear links with a range of specialties or multidisciplinary care team required for cancer care, for the purpose of clinical advice, referral and continuing education
- They follow evidence-based practice or treatment recommendations of a multidisciplinary care team
- They undertake regular review of their performance and contribute to regular audit of their cancer care
- They are actively involved in continuing professional development
- Their patients can make an informed choice about their care, including the options of referral to other professionals or specialised centres.

Multidisciplinary Care

Multidisciplinary care is commonly understood to mean care based on formal consultation between medical specialists — generally surgeons, radiotherapists, medical oncologists and pathologists. But the term is increasingly being used to describe care based on broader consultation that may involve specialists in diagnostic imaging, pharmacy, nursing, social and psychosocial work, and palliative and other support services.

The phase of a particular illness and the goals of any intervention define the skills required of a particular team, rather than the medical or other qualifications of the individual professionals involved in such teams.

The distinctions between phases of an illness are seldom clear cut. Overlap and continuity of special skills are needed. With several health professionals involved in multidisciplinary care at any one time, it is essential that one individual is identifiable as the overall manager and decision maker, working closely with the patient and the patient's general practitioner.

The extent of advocacy for multidisciplinary care reflects a widespread belief that benefit for the patient will ensue in many cancers when there is a process that ensures individual patients are treated by specialists from several disciplines.

Achieving Multidisciplinary Care

Multidisciplinary care is an approach that includes both treatment planning and ongoing care. The 'gold standard' for multidisciplinary care is a team who meets regularly (whether in person or via teleconferencing) to prospectively plan care and treatment for all patients within a tumour group; however, it is expected that different components of multidisciplinary care will be implemented depending on the setting, the location of the team and the number and type of cancer patients being treated. While it may not always be possible to hold a multidisciplinary team meeting prior to surgery, for instance, it would be expected that some other form of multidisciplinary discussion around treatment planning take place. It is likely that regional multidisciplinary care will look different from urban, while being guided by the principle that interaction between multidisciplinary team members is critical in the determination and effective implementation of the treatment plan. It is also acknowledged that patients move between the private and public sector and multidisciplinary care needs to take this into account.

Improve the Effectiveness of Cancer Control in New Zealand through Research and Surveillance

Data Collection

Reliable data provided to clinicians, policy makers and consumers are required for the successful planning and evaluation of cancer control activities and for quality assurance and improvement. The capacity to collect standardised national data sets and incorporate them in a feedback loop to help guide clinical and public health practice is important for the systematic and informed progression of a national cancer control programme in New Zealand.

Research and Surveillance

It is important to promote research which addresses important gaps in our knowledge of cancer prevention, early detection and treatment, and continue participating in a system of basic and applied research. The development of evidence-based practice and policy advice for cancer control depends upon improvements in the linkages between research and decision-making processes in cancer prevention and care.

Improving and maximising the use of data as an essential tool in decision making is also an important component of promoting evidence-based best practice in cancer control, across the whole spectrum of endeavour from prevention through treatment to palliation. Data should be collected in a timely fashion on a systematic basis and in accordance with nationally agreed data definitions. Data can be collected and used to assess the efficacy of preventive and screening programs, as well as for assessing clinical practice and outcomes.

In all cases, educational and training programs must be developed to ensure that the concept of an evidence basis for preventive, screening and therapeutic measures and the use of a systematic clinical database for the continuing evaluation of the evidence base is accepted as an integral part of the undergraduate and postgraduate medical curricula.

The Hawke's Bay Environment

Profile of Hawke's Bay

The region extends from Waikaremoana in the north, to the Takapau Plains in the south. The Chatham Islands lie some 800 kilometres to the east of New Zealand. There are five local authorities and a single Hawke's Bay Regional Council.

There are two Iwi Authorities in the region. Ngati Kahungunu Iwi Incorporated in the Hawke's Bay and Te Runanga o Te Wharekauri Rekohu on the Chatham Islands.

Demography and Ethnicity

The population of the HBDHB is approximately 146,000. Just over 700 people reside in the Chatham Islands.

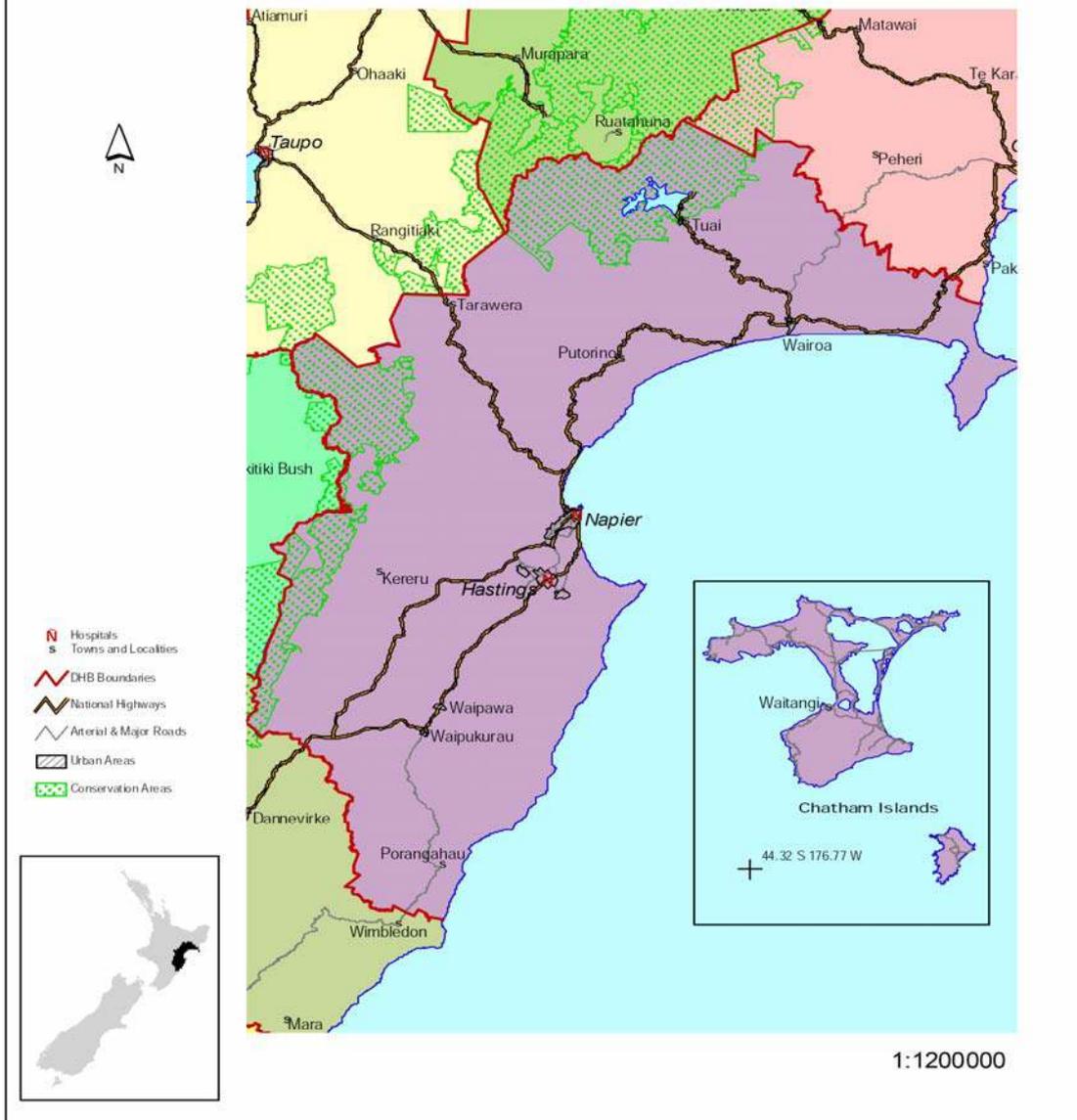
The proportion of Maori in the total Hawke's Bay population is 24.9%, compared to a New Zealand figure of 15%. With a population of 37,316, Hawke's Bay has the largest number of Maori in any of the Central region District Health Boards.

HBDHB Region – Ethnic Distribution by Territorial Authority, 2001

	Maori	Other	Pacific Peoples	Total
Numbers				
Hastings District	15375	49548	2508	67431
Napier City	9087	43638	915	53640
Wairoa District	4923	3942	33	8898
Central Hawkes Bay District	2640	10041	135	12816
Chatham Islands District	384	306	3	693
Percentages				
Hastings District	22.8%	73.5%	3.7%	100%
Napier City	16.9%	81.5%	1.7%	100%
Wairoa District	55.3%	44.3%	0.4%	100%
Central Hawkes Bay District	20.6%	78.4%	1.1%	100%
Chatham Islands District	55.4%	44.2%	0.4%	100%
Central Region	20.2%	77.7%	2.1%	100%
New Zealand	14.1%	80.6%	5.4%	100%

¹ Source: Central TAS (Population data from Ministry of Health) 2004

Hawke's Bay District Health Board



HBDHB Region - Population Projections by Age Group, 2005-2026

Age Group	2005		2011		2016		2021		2026	
	Number	Percent								
Children	34310	22.9%	30350	20.2%	27810	18.6%	26560	17.9%	25860	17.7%
Less than 1 year	1930	1.3%	1780	1.2%	1730	1.2%	1710	1.2%	1620	1.1%
1-4 years	8250	5.5%	7260	4.8%	7000	4.7%	6970	4.7%	6710	4.6%
5-14 years	24130	16.1%	21310	14.2%	19080	12.8%	17880	12.1%	17530	12.0%
Youth (15-24)	19370	12.9%	20740	13.8%	19300	12.9%	16900	11.4%	14710	10.0%
Adults	75500	50.4%	75390	50.3%	74580	50.0%	73390	49.5%	70070	47.9%
25-44 years	37950	25.3%	34070	22.7%	33120	22.2%	32890	22.2%	33090	22.6%
45-64 years	37550	25.1%	41320	27.6%	41460	27.8%	40500	27.3%	36980	25.3%
Over 65 years	20676	13.8%	23485	15.7%	27503	18.4%	31278	21.1%	35745	24.4%
65-74 years	10890	7.3%	12640	8.4%	15410	10.3%	17440	11.8%	18800	12.8%
75-84 years	7380	4.9%	7720	5.1%	8410	5.6%	9720	6.6%	12080	8.3%
85 plus years	2406	1.6%	3125	2.1%	3683	2.5%	4118	2.8%	4865	3.3%
Total	149856	100.0%	149965	100.0%	149193	100.0%	148128	100.0%	146385	100.0%

Deprivation Profile

Maori and Pacific people are disproportionately represented in the more deprived areas of Hawke's Bay with 58% of Maori, 74% of Pacific people and 25% of Non-Maori non-Pacific people living in the most deprived decile areas. The deprivation profile varies across Hawke's Bay with more skewed profiles in Hastings and Wairoa.

HBDHB – Deprivation Profile by Ethnicity, 2001

Deprivation Decile	Maori		Other		Pacific people		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1 Lowest Depriv	246	0.7%	6247	5.8%	38	0.9%	6531	4.4%
2	529	1.5%	6394	5.9%	48	1.2%	6971	4.7%
3	991	2.8%	9903	9.2%	59	1.4%	10953	7.4%
4	2007	5.6%	13381	12.4%	104	2.6%	15492	10.5%
5	2404	6.7%	14009	13.0%	142	3.5%	16556	11.2%
6	1249	3.5%	3693	3.4%	82	2.0%	5024	3.4%
7	4703	13.1%	15595	14.4%	242	6.0%	20540	13.9%
8	3056	8.5%	11578	10.7%	348	8.6%	14981	10.1%
9	10724	29.9%	19226	17.8%	781	19.2%	30731	20.8%
10 Highest Depriv	9977	27.8%	7924	7.3%	2215	54.5%	20116	13.6%
Total	35886	100%	107950	100%	4060	100%	147896	100%

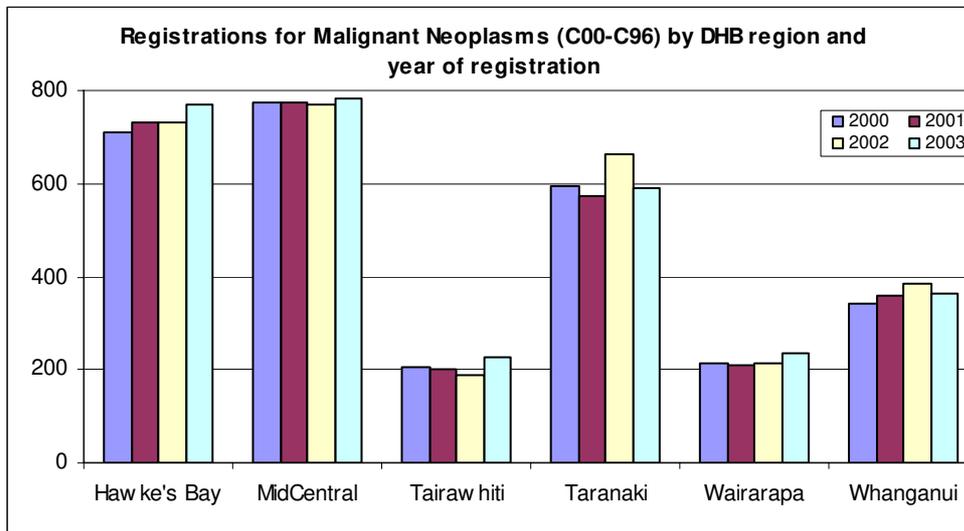
Mortality

Top Ten Causes of Mortality in Hawke's Bay

	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Malignant neoplasm's (C00-C96)	167	27.6%	175	25.8%	342	26.7%
Ischaemic heart diseases (I20-I25)	147	24.3%	149	22.0%	296	23.1%
Cerebrovascular disease (I60-I69)	51	8.4%	81	12.0%	132	10.3%
Other forms of heart disease (I30-I52)	26	4.3%	44	6.5%	70	5.5%
Chronic lower respiratory diseases (J40-J47)	34	5.6%	34	5.0%	68	5.3%
Accidents (V01-X59)	22	3.6%	15	2.2%	37	2.9%
Diseases of arteries, arterioles and capillaries (I70-I79)	19	3.1%	17	2.5%	36	2.8%
Other degenerative diseases of the nervous system (G30-G32)	12	2.0%	23	3.4%	35	2.7%
Diabetes mellitus (E10-E14)	20	3.3%	11	1.6%	31	2.4%
Intentional Self-harm (X60-X84)	19	3.1%	7	1.0%	26	2.0%
Total of top 10 causes of death	517	85.6%	556	82.1%	1073	83.8%
Total deaths all causes	604	100.0%	677	100.0%	1281	100.0%

Cancer Registrations: DHB of Domicile, Total Registrations by Year

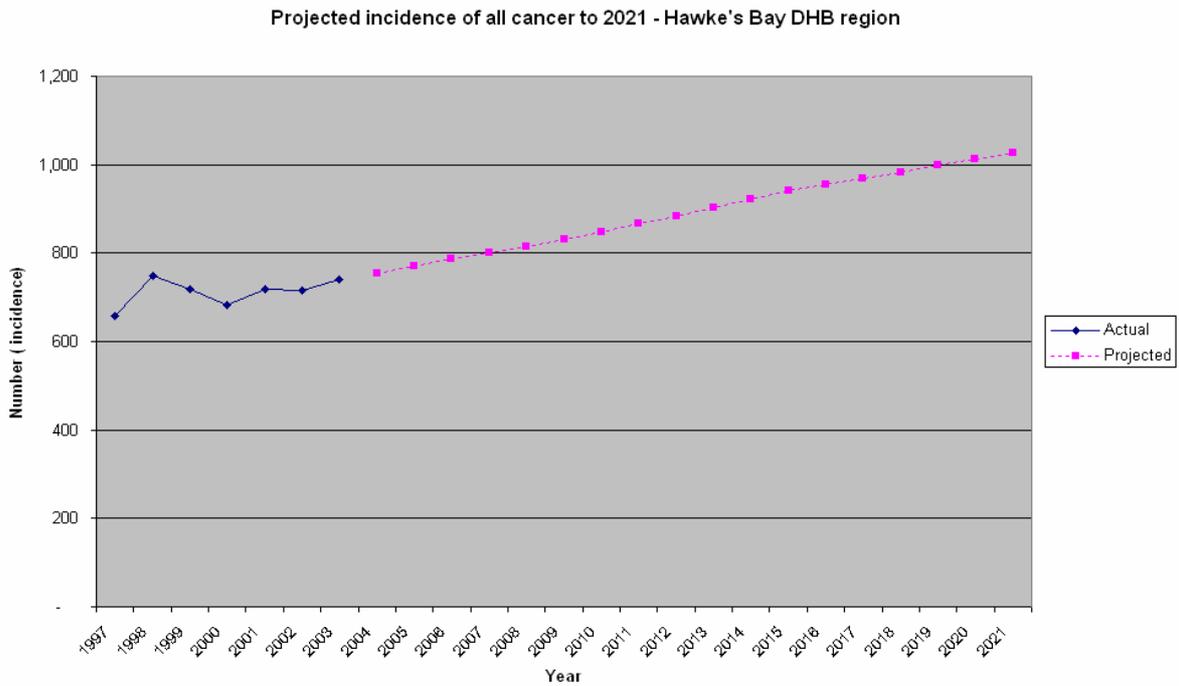
Region	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Northland	459	481	648	649	654	700	725	738	759	780
Waitemata	1197	1119	1570	1665	1815	1660	1720	1771	1906	1982
Auckland	1198	1204	1536	1545	1602	1574	1549	1544	1708	1624
Counties Manukau	885	889	1160	1198	1239	1223	1292	1302	1475	1410
Waikato	1121	1066	1294	1362	1275	1292	1324	1351	1355	1430
Lakes	297	322	368	375	367	377	394	373	370	436
Bay of Plenty	569	602	806	840	835	786	829	796	786	1007
Tairāwhiti	144	140	187	176	183	211	212	226	196	198
Hawkes Bay	487	496	628	617	704	666	752	719	685	719
Taranaki	480	414	461	446	394	459	468	514	579	552
Midcentral	610	634	655	690	641	668	745	757	753	750
Whanganui	226	293	333	336	339	343	314	312	338	349
Capital & Coast	720	738	776	875	878	939	946	978	1081	1073
Hutt Valley	417	423	532	521	498	461	556	536	621	621
Wairarapa	163	182	146	192	200	180	189	209	212	204
Nelson Marlborough	390	431	475	514	484	537	561	625	669	670
West Coast	153	154	116	155	155	161	145	163	161	162
Canterbury	1445	1623	1897	1885	1986	1988	2082	2128	2227	2076
South Canterbury	275	256	307	252	298	297	295	274	332	335
Otago	813	789	932	898	885	819	904	926	962	992
Southland	347	398	439	420	433	496	427	464	467	487
Overseas and undefined	112	110	187	254	188	203	102	84	58	56
Total New Zealand	12508	12764	15453	15865	16053	16040	16531	16790	17700	17913



Cancer Deaths: DHB of Domicile, Total Registrations by Year

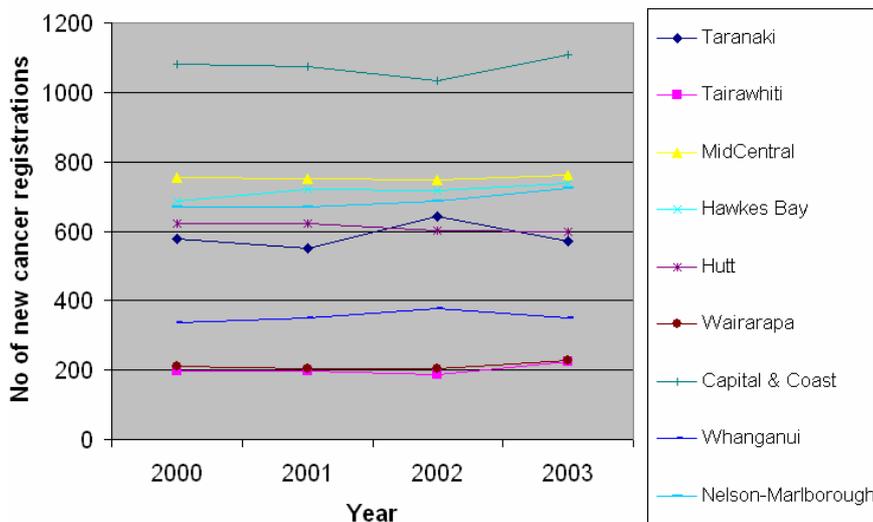
Region	1999	2000
Northland	332	348
Waitemata	753	725
Auckland	651	619
Counties Manukau	598	589
Waikato	629	630
Lakes	186	215
Bay of Plenty	380	416
Tairāwhiti	123	97
Hawkes Bay	357	337
Taranaki	241	255
Midcentral	358	349
Whanganui	157	171
Capital & Coast	427	419
Hutt Valley	299	282
Wairarapa	89	102
Nelson Marlborough	265	263
West Coast	84	69
Canterbury	942	963
South Canterbury	135	147
Otago	435	371
Southland	212	227
Overseas and Undefined	21	26
Total New Zealand	7674	7620

Cancer Projections



Cancer in New Zealand: trends and projections (MoH, 2002) estimates that the overall incidence of cancer will increase over the next decade with two thirds of this increase due to demographic changes alone – i.e. due to an aging population as cancer incidence generally rises with increasing age. This aging effect over-rides the continuing decreases in age-standardised cancer incidence for cancers such as lung, colorectal and cervical cancer so that numbers of these cancers will continue to increase.

Nine DHB New Malignant Cancer Registrations 2000 to 2003



Number of Hawke's Bay residents receiving the following cancer treatments from MidCentral DHB:

Purchase Unit Code	Purchase Unit Name	Financial year		
		2003/04	2004/05	2005/06
M50001	Oncology - Inpatient Services (DRGs)	0	151	144
M50001	Oncology - Inpatient Services (DRGs) - Non-IRF	102	0	0
M50002	Oncology - 1st attendance	427	496	492
M50003	Oncology - Subsequent attendance	2739	2905	2890
M50004	Oncology - Chemotherapy	1102	1310	1187
M50005	Oncology - Radiotherapy	5431	5812	5654

Source: MidCentral DHB

The following are specific cancers which represent issues of major concern in the Hawke's Bay, and where significant gains can be achieved through prevention and control.

The comments are a summary from the McElroy report and Unequal Impact: Maori and non-Maori cancer statistics

Breast Cancer

Current Status

Breast cancer remains the most common cause of female cancer deaths in New Zealand. In the ten years to 1994, breast cancer incidence rose by an average of 3 per cent. This rise in incidence results partly from improved detection of breast cancers by BreastScreen Aotearoa programme, although some proportion of the increase may be attributable to a real increase in disease rates.

Breast cancer cannot be prevented, so the major scope for reducing the impact of its mortality and morbidity is early detection through the national mammographic screening programme, prompt diagnosis, and effective treatment based on the latest evidence.

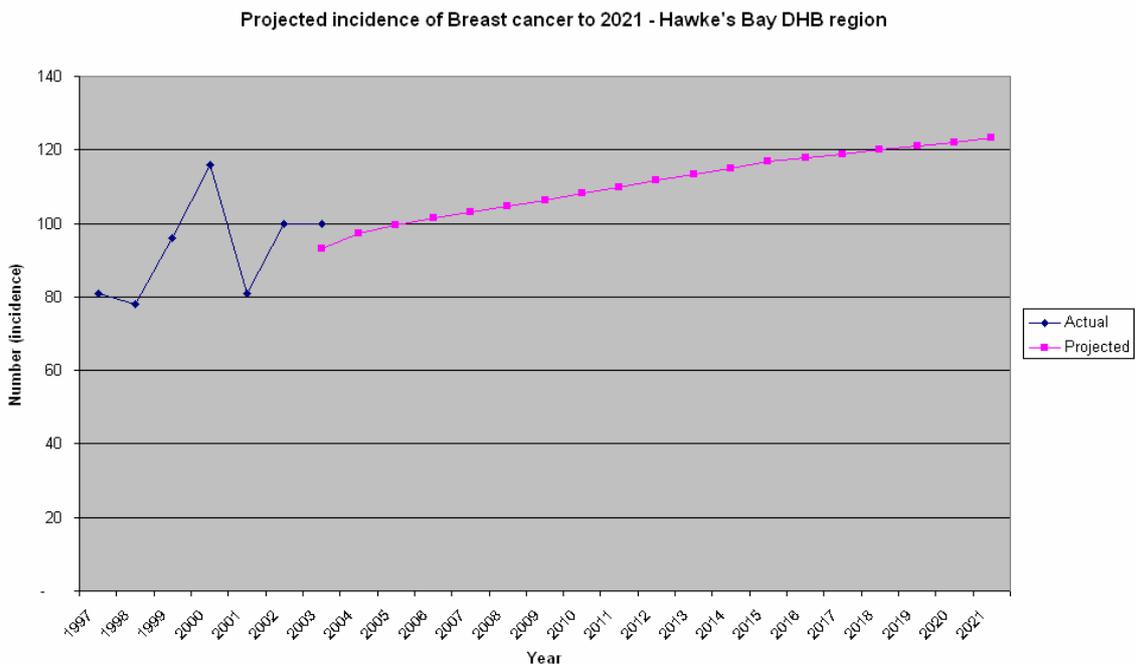
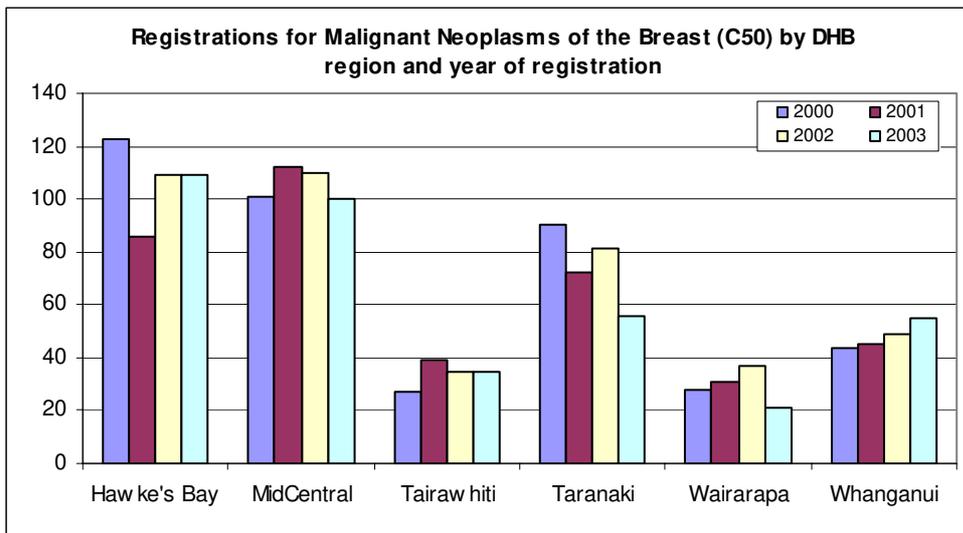
Maori women are a fifth more likely to be diagnosed with breast cancer but two-thirds more likely to die from the disease than non-Maori. Maori women should be prioritised in prevention, screening, treatment and support services for breast cancer. Unequal impact

Major Issues

Issues in breast cancer control such as rates of participation in the national BreastScreen programme and the need for models of coordinated care, could be addressed by the establishment of a more integrated approach to the screening, diagnosis and management of the disease.

Female Breast Cancer Registrations: DHB Region of Domicile by Age, Total Registrations ICD-9-CMA-II Code 174, ICD-10-AM Code C50 + Sex = F

Region	1999	2000	2001	2002
Northland	86	92	101	80
Waitemata	275	235	255	259
Auckland	238	237	241	228
Counties Manakau	180	198	194	218
Waikato	146	174	159	199
Lakes	51	36	60	50
Bay of Plenty	92	102	127	117
Tairāwhiti	22	24	39	32
Hawkes Bay	96	116	81	100
Taranaki	75	86	65	74
Midcentral	105	90	103	104
Whanganui	45	43	41	46
Capital & Coast	146	154	166	171
Hutt Valley	70	89	105	59
Wairarapa	29	27	30	35
Nelson Marlborough	79	82	85	97
West Coast	22	18	14	23
Canterbury	280	312	268	282
South Canterbury	30	34	40	39
Otago	113	96	87	101
Southland	53	55	47	44
Overseas and undefined	2	6	2	6
Total New Zealand	2235	2306	2310	2364



Breast cancer registration rates have gradually increased and overall breast cancer mortality has decreased slightly since the 1980s. The age-standardised breast cancer incidence rate is forecast to increase further over the next decade. However the number of registrations is projected to rise much more steeply increasing by almost half. This dramatic increase in breast cancer burden principally reflects the impact of increasing population size and to a smaller extent the effect of population ageing, superimposed on the relatively small-anticipated increase in breast cancer risk.

Colorectal Cancer

Current Status

Colorectal cancer is the second most common cancer affecting both males and females in New Zealand. Incidence and mortality have remained stable over the past decade.

Currently there is no national screening programme for colorectal cancer because of uncertainties about which test to use, which groups to test and the likely degree of public acceptance. There is screening of high-risk groups, such as those with a family history of colorectal cancer.

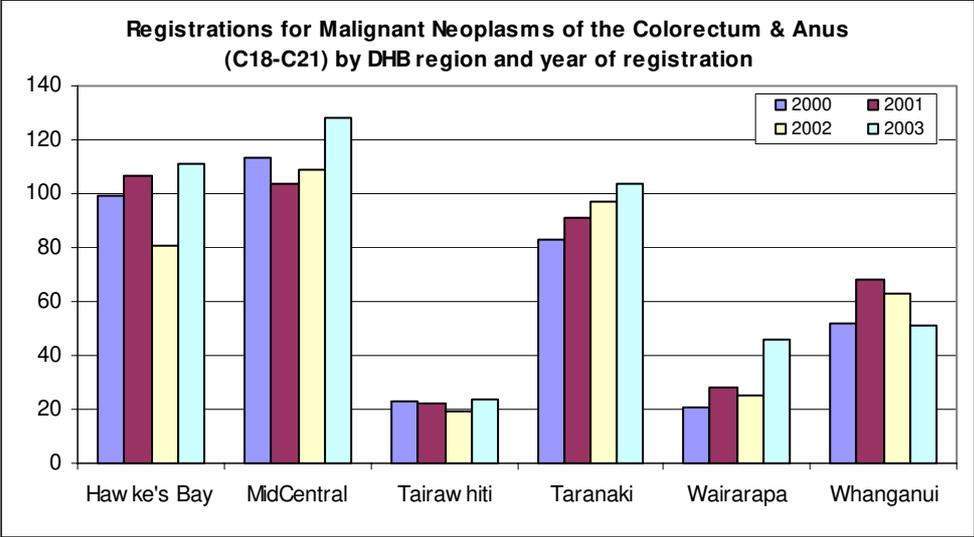
Non-Maori have excess rates of colorectal cancer but once diagnosed were less likely than Maori to die of their cancer. Non-Maori were more likely to be diagnosed at an earlier stage of disease spread, but significant survival disparities exist among those diagnosed at a localised and regional stage. Colorectal cancer is an important cancer for both Maori and non-Maori. The reasons for the disparate outcomes should be investigated, including differential access to diagnostic and staging services and treatment pathways.

Major Issues

There is great potential for control of colorectal cancer through early diagnosis which allows for comparatively simple surgery, low morbidity and minimal community cost. Advanced disease demands the use of complex and costly treatment.

*Registrations for Colo-Rectal Cancer (CID-9-CM Codes 153-154)
DHB Region of Domicile by Age, Total Registrations*

Region	1998	1999	2000	2001
Northland	80	96	103	106
Waitemata	215	262	263	291
Auckland	216	210	221	197
Counties Manakau	185	168	166	178
Waikato	202	214	167	234
Lakes	47	55	42	56
Bay of Plenty	125	140	129	154
Tairāwhiti	29	27	23	22
Hawkes Bay	91	115	99	107
Taranaki	84	63	83	91
Midcentral	136	114	113	104
Whanganui	64	53	52	68
Capital & Coast	145	137	158	135
Hutt Valley	63	65	77	79
Wairarapa	38	27	21	28
Nelson Marlborough	89	114	104	101
West Coast	28	25	28	28
Canterbury	293	339	362	323
South Canterbury	44	58	48	61
Otago	166	180	143	162
Southland	84	83	102	96
Overseas and undefined	9	9	8	3
Total New Zealand	2433	2554	2512	2624



Lung Cancer

Current Issues

Lung cancer is the most common cause of cancer deaths among New Zealand males and the second most common cancer in New Zealand, of which most cases go on to be fatal. Lung cancer rates in males exceed those of females by approximately three to one. Incidence and mortality rates are decreasing in males while those of females are increasing.

While male lung cancer mortality rates in non-Maori, non-Pacific people have been decreasing for the last two decades, Maori and Pacific rates are increasing. Lung cancer rates are also increasing among Maori and Pacific females while the rate for non-Maori, non-Pacific females seem stable.

Adjusting for age, incidence and mortality rates are two to three times higher among Maori males and more than three to four times higher among Maori females than their non-Maori counterparts.

Prevention is the key to reducing the burden of lung cancer; smoking is by far its largest preventable cause. Actions to reduce lung cancer rates have focused on promoting cessation and decreased uptake of smoking, and on legislative changes to restrict tobacco sales and consumption. Knowledge of lung cancer is rapidly expanding, with new techniques for early detection and improved treatment being evaluated.

In summary, Maori are at substantially higher risk of developing lung cancer, more likely to be diagnosed at a later stage and have significantly lower survival chances after diagnosis than non-Maori. Maori should be prioritised in primary prevention and early detection of lung cancer. The reasons for survival disparities should be investigated.

Major Issues

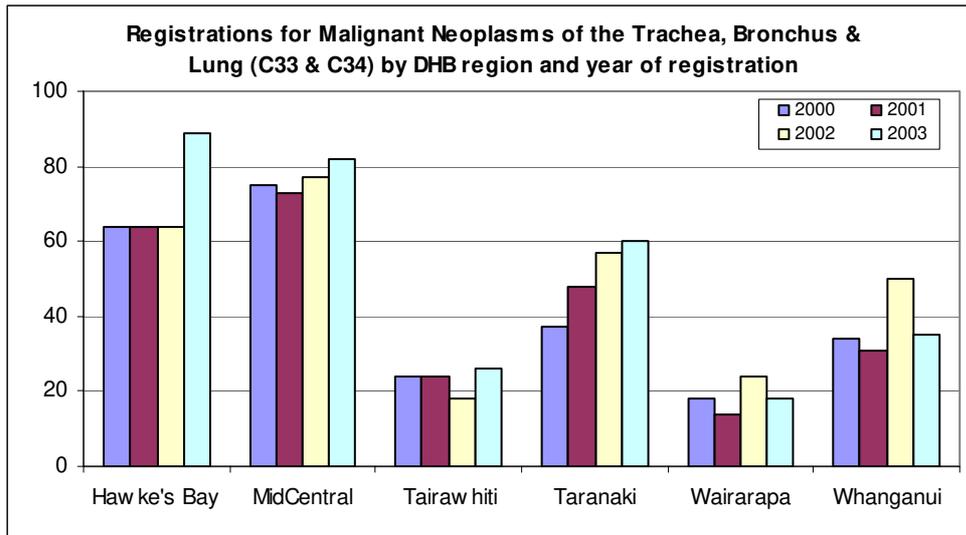
There is a wide range of strategies for tobacco control already in place at national, local, DHB and community level.

A coordinated approach to implementing tobacco control, nutrition and physical activity strategies needs to be a priority for the HBDHB. There needs to be a focus on achieving and improving interagency commitment to these activities.

*Registrations for Malignant Neoplasm of the Trachea, Bronchus & Lung (ICD-9-CM Codes 162)
DHB Region of Domicile by Age and Sex, Total Registrations*

Region	1999	2000	2001
Northland	76	87	71
Waitemata	134	133	156
Auckland	143	117	108
Counties Manakau	136	153	117
Waikato	124	135	149
Lakes	41	50	35
Bay of Plenty	76	86	99
Tairāwhiti	28	24	24
Hawkes Bay	64	64	64
Taranaki	46	37	48
Midcentral	83	75	73
Whanganui	31	34	31
Capital & Coast	66	77	76
Hutt Valley	52	54	46

Region	1999	2000	2001
Wairarapa	23	18	14
Nelson Marlborough	39	42	46
West Coast	12	12	18
Canterbury	213	204	167
South Canterbury	22	30	31
Otago	70	109	95
Southland	40	50	53
Overseas and undefined	7	8	8
Total New Zealand	1526	1599	1529



Cervical Cancer

Current Issues

Both the incidence and mortality rates have been falling for many years, due mainly to the widespread use of the Pap. smear screening test and the subsequent treatment of precancerous abnormalities. This is one of the few cancers where precancerous lesions are detectable and treatable. Hence mortality from this cancer could be largely prevented with current screening and treatment methods.

Cervical cancer is a leading cause of cancer death among Maori women, yet it is preventable and treatable. Maori women have twice the incidence of cervical cancer and nearly five times the mortality rate of non-Maori women. To accelerate the reduction of disparities, Maori women must be prioritised in prevention, screening, diagnosis, staging, treatment and support services for cervical cancer.

Major Issues

The development and implementation of effective and culturally appropriate strategies for screening groups with a higher incidence of cancer of the cervix would assist in increasing overall participation in the national screening programme.

The prioritisation of Maori and Pacific women is crucial if health gains from this screening programme are to be optimised.

*Cancer Registrations: DHB Region of Domicile by Age, Female Registrations, 2001-2001
C53 Malignant Neoplasm of Cervix Uteri*

Region	2000	2001
Northland	9	8
Waitemata	27	17
Auckland	21	17
Counties Manukau	21	16
Waikato	10	15
Lakes	14	7
Bay of Plenty	12	11
Tairāwhiti	9	1
Hawkes Bay	8	4
Taranaki	8	1
Midcentral	5	10
Whanganui	2	6
Capital & Coast	7	13
Hutt Valley	12	7
Wairarapa	1	4
Nelson Marlborough	5	7
Canterbury	20	3
Otago	7	22
Southland	6	14
Overseas and undefined	1	6
Total New Zealand	205	189

Prostate Cancer

Current Issues

Prostate cancer is the second most common cancer in terms of incidence and the third most common in terms of mortality in New Zealand men.

The reported incidence rose rapidly since the introduction of better detection methods in 1990. However, since 1994 incidence rates have declined although not quite to their previous level. Prostate cancer shows a particularly steep age pattern with few cases occurring before middle age and over 90% of registrations and deaths occurring in old age. There is no evidence of any reduction in mortality associated with early detection in asymptomatic men. The current recommendation is that men without symptoms should not be screened for prostate cancer.

The optimum treatment for prostate cancer is subject to debate. The current trend is to adopt a watchful waiting approach in men aged over 75 years and with low grade tumours. Treatment such as radiotherapy or radical prostatectomy are being offered to younger men. This approach is seen by some as a reasonable compromise until evidence from randomised controlled trials becomes available.

Mortality is expected to increase although very slowly. However this projected increase would rate prostate cancer higher than lung and colorectal cancers by 2011.

After adjusting for age, Maori have a lower incidence but higher mortality rates than non-Maori. Maori were more likely to be diagnosed at an advanced stage of the disease, and once diagnosed were more likely to die from their cancer. Maori men should be prioritised in prostate screening, detection, staging, treatment and support services. The reasons for differential outcomes should be investigated.

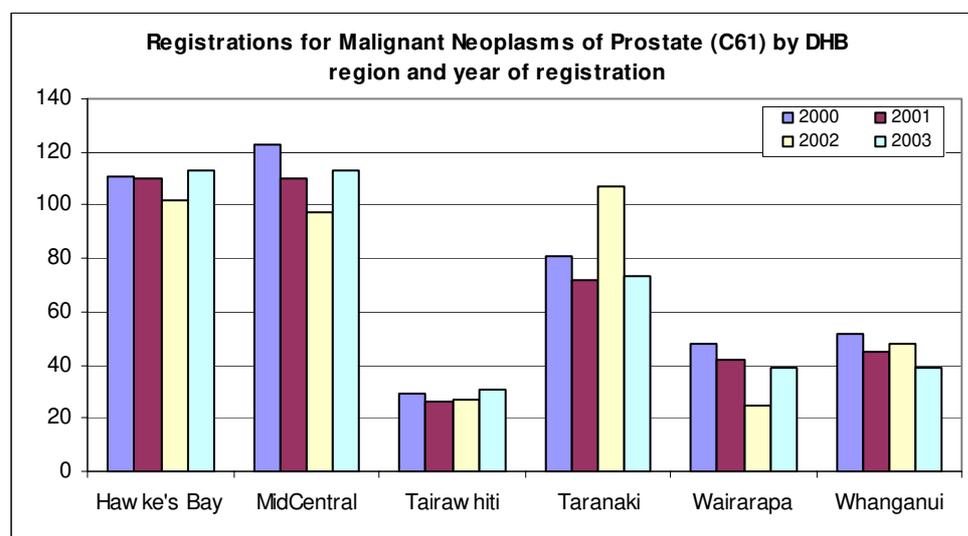
Major Issues

Screening for prostate cancer should be discouraged unless evidence of benefit emerges which supports the development of a national screening programme.

There is a need for the development, testing and evaluation of appropriate information for men and their general practitioners.

*Registrations for Malignant Neoplasm of the Prostate (ICD-9-CM Codes 185)
DHB Region of Domicile by Age and Sex, Total Registrations, 1999*

Region	1999	2000	2001
Northland	146	151	146
Waitemata	288	383	389
Auckland	240	320	317
Counties Manakau	190	276	239
Waikato	199	202	211
Lakes	44	35	70
Bay of Plenty	83	78	156
Tairāwhiti	33	29	26
Hawkes Bay	116	111	110
Taranaki	65	81	72
Midcentral	101	123	110
Whanganui	46	52	45
Capital & Coast	141	202	196
Hutt Valley	80	125	146
Wairarapa	21	48	42
Nelson Marlborough	103	142	131
West Coast	31	31	34
Canterbury	344	347	269
South Canterbury	42	58	60
Otago	161	174	196
Southland	86	64	75
Overseas and undefined	30	13	6
Total New Zealand	2590	3045	3046



Skin Cancer

Current Issues

Hawke's Bay melanoma rates are the second highest in New Zealand, but are increasing slower than the national average.

Primary prevention programmes in Hawke's Bay have been successful in raising awareness of the dangers of exposure to sunlight.

Opportunistic detection by general practitioners and targeting of specific high-risk population groups remain useful methods for early detection and diagnosis of skin cancer.

Melanoma is relatively common among non-Maori, but relatively rare among Maori. However, Maori diagnosed with melanoma were more likely to be diagnosed at an advanced stage of disease spread. This needs to be considered in the design, monitoring and evaluation of interventions to increase early detection of melanoma.

Major Issues

Future preventive efforts may need to concentrate more on structural changes within the community to decrease time in the sun and to increase protective shade structures and other physical means of protection. If an impact is to be made on future incidence rates of skin cancer in Hawke's Bay, the nature and amount of sun exposure in children and adolescents need to be reduced.

Registrations for Malignant Melanoma of the Skin (ICD-9-CM Code 172) DHB Region of Domicile by Age, Total Registrations

DHB Region	1999	2000	2001
Northland	53	57	84
Waitemata	188	203	231
Auckland	131	168	165
Counties Manakau	134	142	127
Waikato	141	158	129
Lakes	37	28	38
Bay of Plenty	77	69	116
Tairāwhiti	18	26	9
Hawkes Bay	85	66	74
Taranaki	59	97	81
Midcentral	53	48	82
Whanganui	26	26	25
Capital & Coast	89	90	105
Hutt Valley	39	49	43
Wairarapa	15	21	15
Nelson Marlborough	64	69	66
West Coast	12	16	12
Canterbury	171	189	226
South Canterbury	18	38	24
Otago	71	82	76
Southland	20	16	27
Overseas and undefined	1	2	2
Total New Zealand	1502	1660	1757

Workforce Development

Workforce Development in respect to the Cancer Continuum is critically important if the initiative is to gather momentum and achieve significant improvements through a strategic workforce development alignment, with direction, throughout cancer associated providers.

The framework approach encapsulates public health workforce development in relation to Cancer Care. Regulated and unregulated workforce are in a wide variety of positions that are scattered throughout various roles and consist of a complex mix of skills, culture and background.

Implementation of this plan will achieve a co-ordinated and consistent approach from preventative care to throughout the cancer journey. It is a multidisciplinary strategic approach that has not previously been undertaken in the cancer workforce.

The Workforce Development Framework

A broad approach is required, with the establishment of a framework that provides flexibility, to cater for the ethnically and culturally diverse workforce and apply a whole-system approach to cancer workforce development that is a robust, collaborative and national approach inclusive of ancillary health care workers, allied health professionals, health management and administrative staff. This framework will be instrumental in establishing a culture of coaching and mentoring.

Another key component of development is to build the capacity of services to attract, retain and develop staff into a career within the health sector. As with the health sector in general, retention is a significant issue for cancer based organisations. Information and knowledge management and staff retraining will assist with the constant stress to these resources.

As outlined above, development of the workforce will need to encompass infrastructure, organisational development, recruitment and retention (interaction with schools etc), training and development and research and evaluation. It needs to be aligned with these recognised five themes through which public health workforce development streams:

- 1) Capacity – having the right workforce composition (e.g. numbers, cultural makeup, skill mix) and distribution.
- 2) Capability – fostering an environment that supports worker development and career pathways through attaining the right skills and competencies (including cultural competencies).
- 3) Information and Research – informing public health workforce development through timely and accurate information and research.
- 4) Relationships – fostering an interconnectedness that supports a collective effort towards public health workforce development.
- 5) Policy and Ensuring the workforce development initiatives are consistent with policy and regulation.

Training and Development

A well designed and integrated training and development introduction, grounded in service quality standards to benchmark professional development and competency assurance, will be vital to support participation, performance and effectiveness.

The diversity of the sector across regulated and unregulated workforce and in both rural and urban locations requires an effectively coordinated inclusive training and development model to be developed and established.

The dominant influence of professionalism brings an awareness and importance of referencing, where possible, to recognized quality standards and that there is allowance for workplace performance recognition when congruent with recognised standards.

Although training has been the responsibility of the tertiary education sector, the establishment of relevant programmes are often reactionary by nature, affected by budgetary constraints, limited in flexibility and poorly aligned with workforce needs. While strengthening this engagement to address the changing service delivery needs and course effectiveness alignment is essential, there is also a complimentary need for the development of new specific models of practice that have transferable core competencies that will empower staff to apply the model of flexible careers and skills escalation.

To ensure an inclusive approach across sectors and health practitioner groups, development should include – skill, knowledge, attitudinal, cultural competencies, application of Maori models of care, maintaining effective networks, communication (interpersonal), people and personal management and coaching and mentoring.

Areas of identified actions include (but are not limited to):

- Improve workforce information (infrastructure that promotes the sharing of information (intranet/internet)
- Increase communication activity (information management and communication mechanisms)
- Develop national recognized standards and assessment capabilities (qualifications based – sector wide training initiatives)
- Develop culture and systems necessary to support and sustain staff
- Leadership development
- Investigation and strengthen primary care links
- Strengthening the learning organisation through
 - Dynamic training
 - Flexible training
 - Responsive training
 - Individual development and recognition
- Capacity building (future proofing the workforce)
- Mentoring and coaching for sector wide workforce
- Strengthen career pathways through networking strengths with providers and other government agencies (e.g. TEC, MSD)
- Research and needs assessments (inclusive of Pacific and Maori peoples)

Change and Indicators

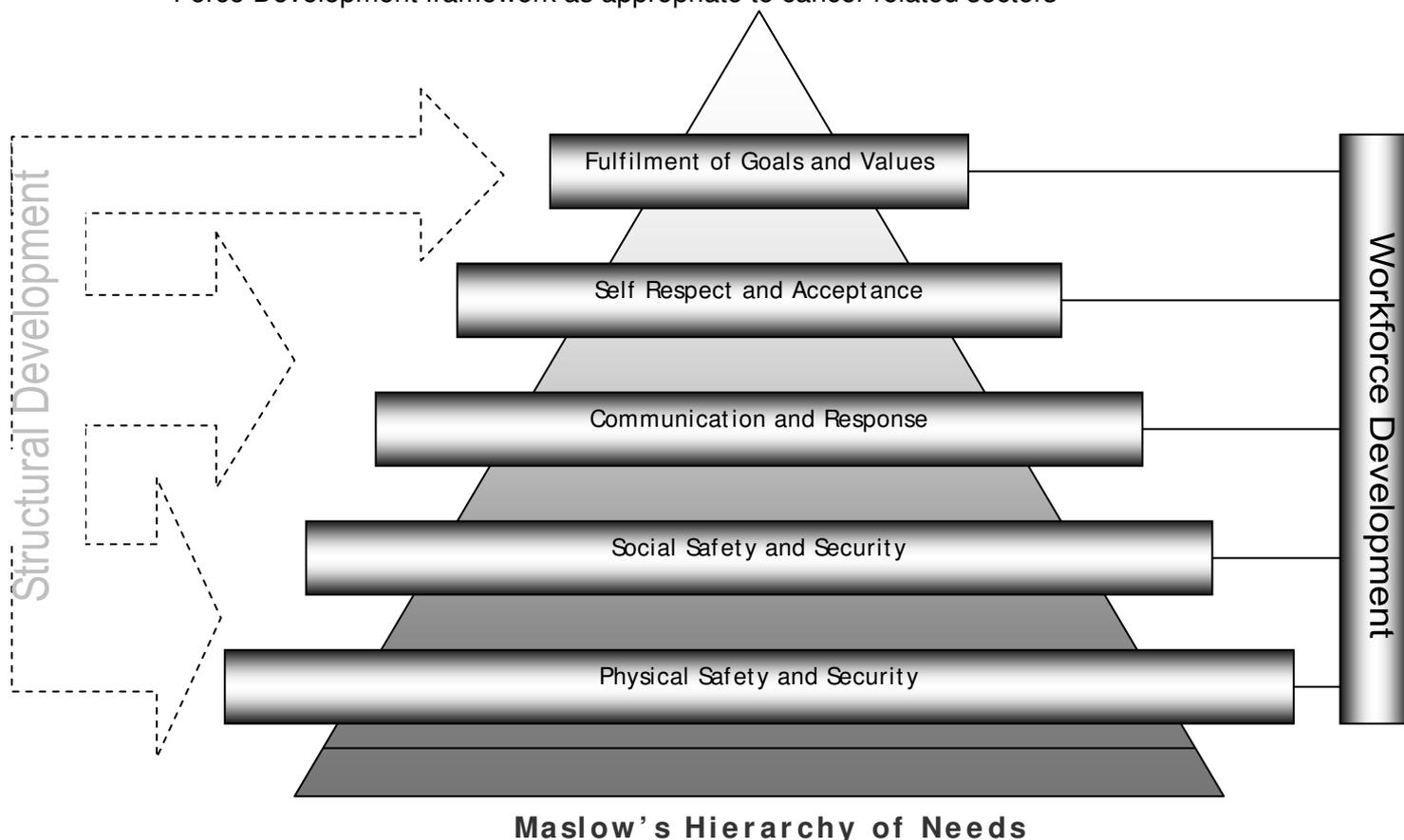
In considering new ways of working, both bottom-up and top-down views in managing training and development will build and expand scopes of practice through aligning identified best practice and associated successful initiatives, throughout the sectors, and bringing them into general practice across the workforce.

The strategy behind the following three pronged approach is to provide:

- 1) A person approach where the development is based around the needs of the worker to improve effectiveness through effective competencies.
- 2) A systematic approach to address the overarching issues that impact on workforce development.
- 3) A reflective and learning approach that enables experience and elements of knowledge management to be developed, enhanced and utilised in learning and managing change.



Applied to the Cancer Care Continuum – an over-arching view of application of the Work Force Development framework as appropriate to cancer related sectors



Applied to the regulated and unregulated sectors at an organisational & individual level, with strategies applied at all levels of influence.

Structural Development includes (but is not limited to) elements of Management Development, Behavioural Development, Transformational Development, Change Management and Organisational Change.

A three pronged strategy is applied to sections of structural/personal development.

Sample Terms of Reference for a Cancer Advisory Group

Cancer Services Plan District Management Group (DMG) TERMS OF REFERENCE

Vision

Providing optimal cancer and palliative care services for our population.

Statement of Intent

The District Management Group will provide leadership, advice and support in overseeing implementation of the Cancer Services Plan.

The Group will work to foster the following values in planning for cancer services:

- Care and Respect
- Customer Focus
- Innovation
- Leadership
- Professionalism
- Sustainability
- Community Involvement
- Flexibility
- Integration
- Partnership
- Responsibility
- Teamwork

Purpose

The DMG has a Clinical Governance function providing specialist and strategic advice to the Funding Division of the HBDHB on the development, delivery, monitoring and evaluation of all cancer services strategies across the region.

Functions

The DMG will have the following roles and functions:

- Advise on population health perspectives in relation to the implementation of the Cancer Service Plan, Cancer Control Plan and other national or regional strategies
- Advise on population screening initiatives
- Advise on research and evaluation programmes to support the Cancer Service Plan.
- Oversee and enhance appropriate consultation processes with providers and communities of interest to ensure optimal provider and community support is achieved.
- Provide independent advice on the overall implementation of the Cancer Service Plan including recommendations for change required to achieve the aims of the plan
- Monitor and review proposed developments to ensure they are aligned with the strategic intentions of Hawke's Bay's District Strategic Plan.
- Review the Cancer Service Plan where appropriate to assist in the development and maintenance of Hawke's Bay's Primary Health Care Strategy including implementation planning and any service development plans arising from the Strategy.

District Management Group Structure

The DMG will comprise strategic representation from the Tertiary, Secondary, Primary Provider sectors, Iwi, the Community and DHB Planning, Funding and Performance Division. There will be one official from each constituency, however, representatives may bring along colleagues if required.

<i>Providers:</i> General Practice Teams Nursing Cranford Hospice Primary Health Organisations	<i>HBDHB:</i> Planning, Funding and Performance Division Oncology Service staff
<i>Community:</i> Cancer Society	<i>Treaty Partners:</i> Ngati Kahungunu Iwi
	<i>In Attendance:</i> Cancer Services Project Manager Secretariat support from the Funding Division
<i>Other members may be co-opted as and when required</i>	

Officers, Members and their Responsibilities

The DMG Chair and deputy Chair shall be appointed by the sponsor in consultation with the group. All DMG members should submit an apology when unable to attend a meeting. Should members be absent for three or more meetings without apology, that membership may be forfeited after discussions between the Chair and the member.

Meeting Structure and Rules

Meetings will be held monthly for one and a half hours. The business of the DMG is to be contained within this timeframe wherever possible. It is acknowledged that this is a major commitment of resource on behalf of the participants and should be used well.

Any conflict of interest arising within the DMG will be declared and managed according to the HBDHB's policy.

Secretariat support will be available from Planning, Funding and Performance Division to take minutes and ensure their timely circulation. Meeting agendas are to be distributed at least one week prior to the scheduled meeting date.

Reporting

Open and transparent reporting is preferred, the emphasis being on maximising our learning, and sharing from experiences. The process will be one of collaboration and inclusiveness wherever possible.

The principal relationship for the DMG will be with the Planning, Funding and Performance Division. There is, however, an expectation that the DMG will contribute to reports that are submitted to the Executive, Community and Public Health Advisory Committee and the District Health Board.

Tenure

The tenure of the DMG is ongoing, subject to annual review of the Group's term of reference and work plan. The DMG's work plan will be determined by the Planning, Funding and Performance Division in consultation with the Group. The DMG will review its Terms of Reference and work plan annually in September.

Consultation List

Chris McKenna, Associate Director of Nursing, Project Sponsor, HBDHB
Peggy Kersley, Project Management Co-ordinator, HBDHB
Dr Simon Allan, Consultant Medical Oncologist, and Clinical Director, Regional Cancer Treatment Service, Mid-Central Health

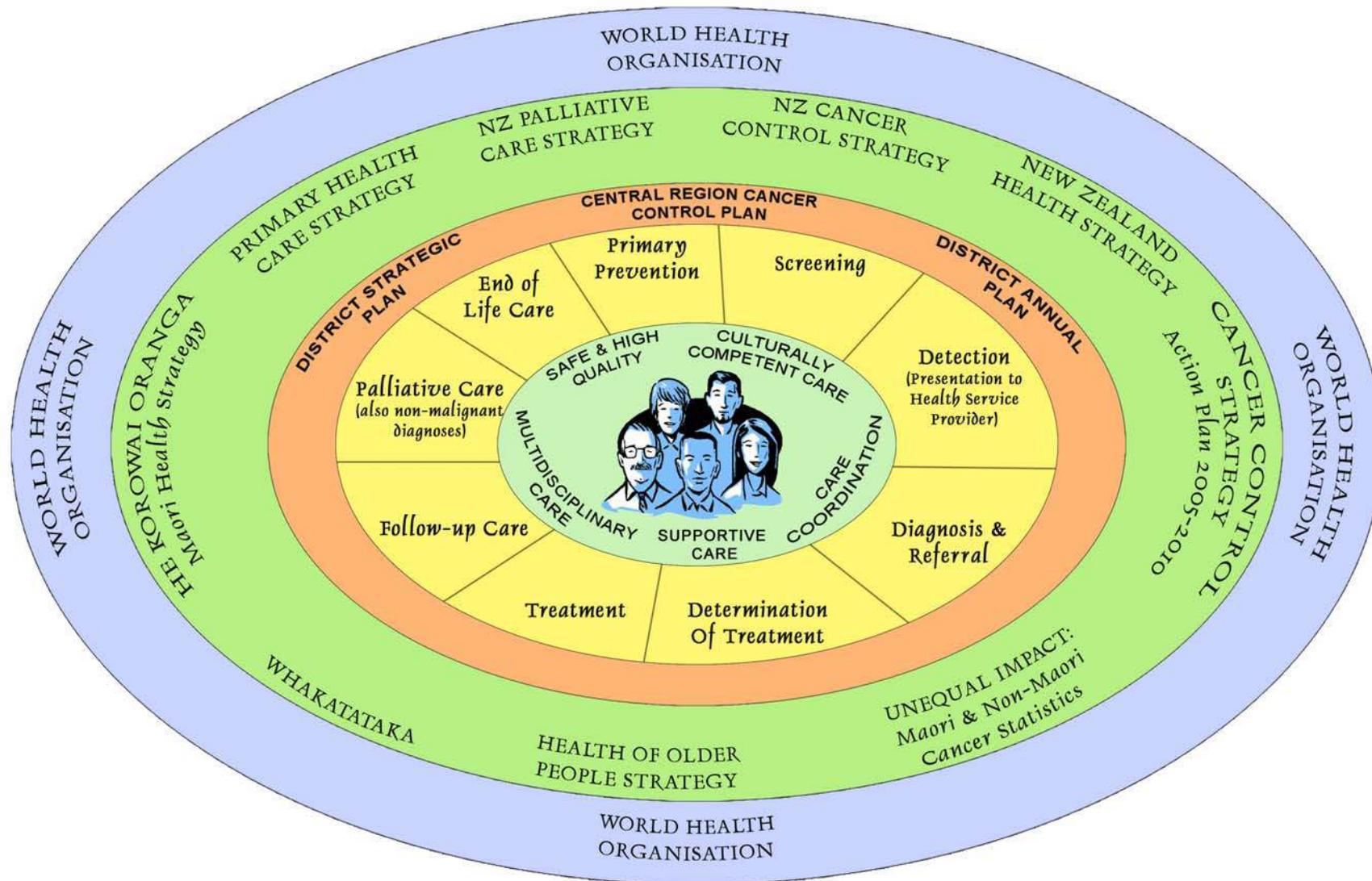
Cancer Control Strategy Project Leadership Team

Kevin Simpson, Director DAP Special Projects, HBDHB
Robert Bull, Programme Coordinator, PF&P Division, HBDHB
Penny Pere, Clinic Unit Manager, Med/Surg Services, HBDHB
Moira Gillespie, CCN Villa 6, HBDHB
Dr Kerry Lum, Medical Director, Cranford Hospice
Ruth Wheatley, RN, Te Kupenga Hauora Ahuriri
Dr Mark Peterson, GP and Deputy Chair, HBPHO Board
Jacquie Eathorne, Customer Services, HBDHB
Julie Ball, Revenue Contracts Manager, HBDHB
Dr Richard Tustin, Pathologist, HBDHB
Dr Iain Morle, SMO Radiologist, HBDHB
Mr Grant Broadhurst, General Surgeon, HBDHB
Debbi Scott, Support Services Co-ordinator, Hawke's Bay Cancer Society
Wietske Cloo, Public Health Unit Manager, Napier Health Centre
Wendy Fraser, Consumer representative
Dr John Gommans, SMO Physician

Chris Clarke, CEO, Hawke's Bay DHB
Win Bennett, General Manager, Planning, Funding and Performance Division, HBDHB
Rachael Prenter, Portfolio Manager (since resigned), HBDHB
Physician's Group, HBDHB
Jo Anson, Service Leader, Radiation Oncology and Professional Advisor RT, Regional Cancer Treatment Service, Mid-Central Health
Kirsten Wise, Business Analyst, HBDHB
Mark Heaney, Corporate Planning, HBDHB
Guy Harding, Finance Manager, HBDHB
Wairoa health professionals education forum – GPs, Pharmacists, RNs, physicians
Jamie Preston, Nurse Manager, Chatham Islands
Roger Parr, Principal Nurse, Cranford Hospice
Anne Denton, Pharmacist, Cranford Hospice
Home Health Team, Hastings, Napier, Wairoa and CHB Health Centre
Linda Creighton, Operations Manager, Tu Meke PHO
Christeve Puketapu, RN, Te Kupenga Hauora Ahuriri
Pie Duley, Needs Facilitator, Older People, Wairoa, Bay Home Support
Jeanette Kenderdine, CCN CHB Health Centre, Waipukurau
Sally Allen, District Nurse, CHB
Trish Freer, Service Development Manager, Hawke's Bay Primary Health Organisation
Dr Sanja Majstorovic, Chief Executive Officer, Hawke's Bay Primary Health Organisation
Anna Avery, Needs Assessor Disability Team, Bay Home Support
Leigh White, Manager, Taradale Masonic Residential Home and Hospital
Lyn Burns, Manager, Mary Doyle Trust Life Care Complex
Dr Caroline McElnay, SMO, Public Health Medicine
Linda Roberts and Sue Butler Child Cancer Foundation, Hastings branch
Joc Gray CCN Child Health Unit
Sue Taaffe, Health Promotion Co-ordinator, Gavin Scoble, Executive Officer, HB Cancer Society
Pat Hildred, Christine Bent, Case Coordinators, HBDHB

Gloria Morgan, CNS Palliative Care, HBDHB
Lisa Jones, Analyst, HBDHB
Emma Murfitt, Group Manager, Healthy Populations, HBDHB
Mr Bob Butler, FACEM, Emergency Department, HBDHB
Dr Malcolm Arnold, SMO Physician, HBDHB
Dr Jorge Berrios, Respiratory Physician, HBDHB
Dr Philip Baker, SMO Physician, HBDHB
Billy Allan, Pharmacy Manager, HBDHB
Val Te Rito, RN, Mahia Hauora
Monique, RN, Mahia Hauora
Mary Katae, RN, Kahungunu Executive
Kelli Wallace, RN, Kahungunu Executive
Marie Mahy, Community Support Worker, Kahungunu Executive
Catherine McGregor, Community Support Worker, Kahungunu Executive
Fay Jacobs, Registered Nurse, Wairoa PHO

Model of Care



References

- ¹ Ministry of Health 2003. The New Zealand Cancer Control Strategy. Wellington, Ministry of Health and the New Zealand Cancer Control Trust.
- ² Ministry of Health 2001. The New Zealand Palliative Care Strategy. Wellington, Ministry of Health.
- ³ NHS Cancer Plan. September 2000. National Health Service, London. Retrieved from the world wide web April 2006. www.doh.gov.uk/cancer
- ⁴ National Cancer Care Initiative. Completed Projects. Optimising cancer care in Australia. Retrieved from the world wide web March 2006. www.ncci.org.au/projects/care/optimize_c_care.htm
- ⁵ Cancer Quality Council of Ontario. Strengthening the Quality of Cancer Services in Ontario. Synopsis. October 2003. Retrieved from the world wide web April 2006. www.cancercare.on.ca/pdf/Synopsis_CQCO_Report.pdf
- ⁶ A Cancer Services Framework for Victoria. A report from a consortium led by the Collaboration for Cancer Outcomes Research and Evaluation. July 2003. Retrieved from the world wide web March 2006. www.health.vic.gov.au/cancer/docs/vcsffinalreport.pdf
- ⁷ Ministry of Health 2000. The New Zealand Health Strategy. Wellington, Ministry of Health.
- ⁸ Ministry of Health 2001. DHB Toolkit: Cancer Control. Wellington, Ministry of Health.
- ⁹ WHO 2000. Age Standardisation of Rates. A new WHO standard. GPE discussion paper no. 31. Geneva, World Health Organisation.
- ¹⁰ WHO 1995. National Cancer Control Programmes: Policies and Managerial Guidelines. Geneva, World Health Organisation.
- ¹¹ Ministry of Health 2005. The New Zealand Cancer Control Strategy: Action Plan 2005-2010. Wellington, Ministry of Health.
- ¹² HBDHB. HBDHB District Strategic Plan: 2006-2015: A Picture of Health. Retrieved from HBDHB website, May 2006. www.hawkesbaydhb.govt.nz
- ¹³ Central Region Cancer Network. (2006). Regional Cancer Control Plan. Unpublished document
- ¹⁴ Ministry of Health 2006. Unequal Impact: Maori and non-Maori Cancer Statistics, 1996-2001. Wellington, Ministry of Health.
- ¹⁵ Ministry of Health 2002. He Korowhai Oranga The Clock of Wellness: The Maori Health Strategy. Wellington, Ministry of Health.
- ¹⁶ Ministry of Health 2002. Whakatataka: Maori Health Action Plan 2005. Wellington, Ministry of Health.
- ¹⁷ Ngati Kahungunu 2003. Maori Health Plan for Hawke's Bay: Healing out Spirits 2003-2005.
- ¹⁸ MidCentralDHB. Cancer Services Plan. (2005). Unpublished document
- ¹⁹ Public Health Intelligence 2004. 2002/03 New Zealand Health Survey: DHB Snapshot Datacube Help Documentation. Unpublished document.
- ²⁰ Ministry of Health 2001. Improving Non-Surgical Cancer Treatment Services in New Zealand. Wellington, Ministry of Health
- ²¹ MacCredie M, Coates M, Duque-Portugal F et al (1993) *Common Cancers in Migrants to New South Wales 1972-1990*. NSW Cancer Council, Sydney.
- ²² Wilson N 2000. Occupational class and health. In: P Howden-Chapman, M Tobias (eds)
- ²³ Hawke's Bay DHB. 2006. Health Status Report. Unpublished document.
- ²⁴ Pearce N, Bethwaite P. 1997. Social class and male cancer mortality in New Zealand, 1984. *7. New Zealand Medical Journal* 110:200.2
- ²⁵ Ministry of Health (2005). Chatham Islands Focus: Results from the 2002/2003 New Zealand Health Survey
- ²⁶ AIHW 1997. National Health Priority Areas Report: Cancer Control. Canberra, Australian Institute of Health and Welfare. Retrieved from the world wide web, March 2006. www.aihw.gov.au/cancer
- ²⁷ Cancer Services Collaborative Improvement Partnership – Multi-Disciplinary Team. Retrieved from the world wide web May 2006. www.modern.nhs.uk/cancer
- ²⁸ Cancer Services Collaborative Improvement Partnership – Improving Communication in Cancer Care. Retrieved from the world wide web May 2006. www.modern.nhs.uk/cancer
- ²⁹ DHS 2006. Patient Management Framework: A guide to consistent cancer care. Victoria, Department of Health Services. Retrieved from the world wide web, May 2006. www.health.vic.gov.au/cancer

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- ³⁰ Ministry of Health 2002. Cancer in New Zealand: Trends and Projections. Wellington, Ministry of Health.
- ³¹ Ministry of Health, New Zealand Health Information Service. 2005. Cancer: New Registrations and Deaths 2002. Wellington, Ministry of Health.
- ³² Barber, J. 2004. Non-Surgical Cancer Treatment Service Plan for the Midland Region. Retrieved from the world wide web May 2006. www.bopdhb.govt.nz/PDFs/Regional.pdf
- ³³ NSW DHS 1992. Guide to the role delineation of health services.
- ³⁴ Australian Medical Workforce Advisory Committee. 2001. The Specialist Medical and Haematological Oncology Workforce in Australia, AMWAC Report 2001-2. Sydney. Retrieved from the world wide web May 2006. www.healthworkforce.health.nsw.gov.au/amwac/amwac/reports.html
- ³⁵ Parkin DM, Pisani P, Lopez AD & Masuyer E (1994). At least one in seven cases of cancer are caused by smoking: global estimates for 1995. *International Journal of Cancer* 59: 494-504.
- ³⁶ Baillie AJ, Matlick RP, Hall W & Webster P (1994) Meta-analytic view of the efficacy of smoking cessation interventions. *Drug & Alcohol Review* 13: 157-70.
- ³⁷ Potter JD, Chavez A, Chen J et al (1997) Food, Nutrition and the Prevention of Cancer: A Global Perspective. World Cancer Research Fund/American Institute of Cancer Research, Washington DC.
- ³⁸ Ward J, Gordon J & Sanson-Fisher R (1991). Strategies to increase preventive care in general practice. *Medical Journal of Australia* 154: 523-31.
- ³⁹ Ward JE, Boyle K, Redman S & Sanson-Fisher R (1991). Increasing women's compliance with opportunistic cervical cancer screening: a randomised trial. *American Journal of Preventive Medicine* 7: 285-91.
- ⁴⁰ Social inequalities in Health: New Zealand 1999. Wellington, Ministry of Health. Chapter 5.
- ⁴¹ Australian Bureau of Statistics (1997) *National Health Survey, 1995. Summary of Results*. ABS, Canberra.
- ⁴² *Through the Eyes of a Child: A National Review of Paediatric Services*. HFA/Paediatric Society of New Zealand 1998.
- ⁴³ Burke S & Kissane DW (1996) Psychological support for breast cancer patients: a review of interventions by specialist providers. Report for the NHMRC National Breast Cancer Centre, Sydney.
- ⁴⁴ Meyer TJ & Mark MM (1995) Effects of psychosocial interventions with adult cancer patients: a meta-analysis of randomised experiments. *Health Psychology* 14: 101-8.
- ⁴⁵ NBCC and NCCI. 2003. Clinical Practice Guidelines for the Psychosocial Care of Adults with Cancer. Camperdown, NSW, NBCC. Retrieved from the world wide web, May 2006. www.nhmrc.gov.au
- ⁴⁶ Girgis A & Foot G (1995) Satisfaction with Breast Cancer Care: A Summary of the Literature 1984-1994. Report for the NHMRC National Breast Cancer Centre, Sydney.
- ⁴⁷ Newell S, Girgis A, Sanson-Fisher RW et al (in press). Assessing the psychosocial outcomes of chemotherapy patients.
- ⁴⁸ Perkins J, Sanson-Fisher RW & Giles R (in press). The physical and psychosocial experiences of cancer patients undergoing radiation therapy.
- ⁴⁹ Miller SM & Mangan CE (1983). Interesting effects of information and coping style in adapting to gynaecological stress: should a doctor tell all? *Journal of Personality and Social Psychology* 45: 223-36.
- ⁵⁰ Johnson JD, Roberts CS, Cox CE et al (1996). Breast cancer patients' personality, style, age and treatment decision making. *Journal of Surgical Oncology* 63: 183-86.
- ⁵¹ Hospice New Zealand. Annual Report 2005. Retrieved from the Hospice of New Zealand website, July 2006. www.hospice.org.nz