

Waikato District Health Board

WAIKATO CANCER CONTROL SERVICES

Review & Analysis 2006



Waikato District Health Board

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Introduction

The aim of this report is to collate all of the information and analysis gained over the last four months that has assisted in the formation of the Waikato DHB Cancer Control Action Plan. This document is a reference document for the Waikato DHB Cancer Control Action Plan.

Cancer Control is an organised and systematic approach to the reduction of cancer incidence, morbidity and mortality. The World Health Organisation (World Health Organisation, 2001) advocates the development of national cancer control programmes as the best means of reducing the incidence, impact and inequalities of cancer and improving the quality of life of those with cancer within available resources.

The New Zealand Cancer Control Strategy (Ministry of Health, 2003b) provides a framework for reducing the incidence, impact and inequalities of cancer in New Zealand along the whole cancer control continuum of prevention, early detection, effective diagnosis and treatment, rehabilitation, support and palliative care.

District Health Boards (DHBs), as identified in the New Zealand Public Health and Disability Act 2000, are responsible for assessing the health and disability needs of their communities and managing resources and services delivery to best meet those needs for their population. Furthermore, DHBs are guided by the objectives set out in the New Zealand Health Strategy (Ministry of Health, 2000) and the New Zealand Disability Strategy (Ministry of Health, 2001).

The Ministry of Health requires District Health Boards (DHBs) to submit Cancer Control Action Plans by February 2007, which will take account of the goals in the New Zealand Cancer Control Strategy (NZCCS) and associated NZCCS Action Plan 2005 – 2010 (. Ministry of Health, 2005).

The Minister's priorities for 2006–07 'getting ahead of the curve – the chronic disease burden' provides guidance to DHBs in developing Cancer Control Action Plans. The guidance includes:

Guideline	Implementing the New Zealand Cancer Control Strategy
Government Priorities	<p>Please discuss how your DHB will progress the Cancer Control Strategy by:</p> <ul style="list-style-type: none">• Establishing or improving regional cancer networks and multidisciplinary teams across the pathway• Ensuring that an integrated and comprehensive palliative care service is provided in 2006/07
Local Priorities/focus	<ul style="list-style-type: none">• Please discuss what initiatives your DHB is doing locally to meet the objectives of the Cancer Control Strategy

The Ministry of Health¹ guidance indicated that developing DHB and regional cancer control plans is an iterative process with recognition that DHBs will be at different levels of advancement. The Ministry of Health have requested that DHBs identify local activities in progress and indicate known priorities. In addition the plan should outline how the DHB supports and links to the regional cancer networks.

A partnership and project approach was taken to develop this Action Plan through the formation of the Waikato DHB Cancer Control Steering Group (appendix 1) comprising representatives from Cancer Society, Primary Health Organisations, palliative care services, population health services, provider services (clinical and management), planning and funding and Te Puna Oranga.

The aim of the Waikato DHB Cancer Control Action Plan is to reduce the incidence and impact of cancer and to reduce inequalities with respect to cancer within the Waikato region. To achieve the aim the following project objectives were defined:

- Outline relevant services and providers across the spectrum of the cancer continuum and provide a way forward for cancer control in the Waikato.
- Complete a stocktake and gap analysis of the NZCCS Action Plan phase one priorities (summary refer appendix 1).
- Be the lead DHB for the establishment of a Midland Regional Cancer Control Network (Hewitt, 2006).
- Identify options to reduce health inequalities in regard to cancer.
- Align with the Midland Region Non-Surgical Cancer Treatment Services Strategy (Barber, 2004) and Implementation Plan's (Midland DHBs, 2005).
- Incorporate and build on findings from the Midland Region Patient Mapping project (work in progress) (Hewitt J. & Scanlan L., 2006).
- Integrate the Waikato DHB Palliative Care Strategy Plan (Hewitt J, 2005) model of care and recommendations.

This document is a work in progress and will be built on as the Midland Cancer Network evolves. The document summarises findings to date including:

- An overview of the Waikato demographic characteristics and the cancer burden for the Waikato DHB. It should be noted that this section is limited to access to data and requires further analytical development. The Waikato DHB Health Needs Assessment and Analysis (HNA) (Waikato DHB, 2005) details the Waikato district population characteristics, mortality and morbidity, current strategic priorities and broad and emerging themes. The HNA provides detailed risk factor information such as tobacco smoking, alcohol and drugs, fat, vegetable and fruit intake, obesity and physical exercise.
- Review of cancer control services that support the provision of cancer care along the continuum.
- Identifies key local developments against each NZCCS goal that are progressing well.

¹ New Zealand Regional Cancer Networks Meeting, Wellington 24th November 2006, and Ministry of Health letter dated 14th December 2006.

- Summarises the key themes in relation to the NZCCS Action Plan phase one priorities.

Waikato Population Characteristics

The Waikato DHB district is made up of ten distinct areas referred to as Territorial Local Authorities (TLAs), these are:

Thames Coromandel	Hauraki district
Matamata Piako district	South Waikato district
Waikato district	Hamilton City
Waipa district	Otorohanga district
Waitomo district	Ruapehu district (part)

These territorial local areas are within the geographical boundaries for Tainui waka; Ko Mokau ki runga, Ko Tamaki ki raro, Ko Mangatoatoa ki waenganui, Pare Hauraki, Pare Waikato.

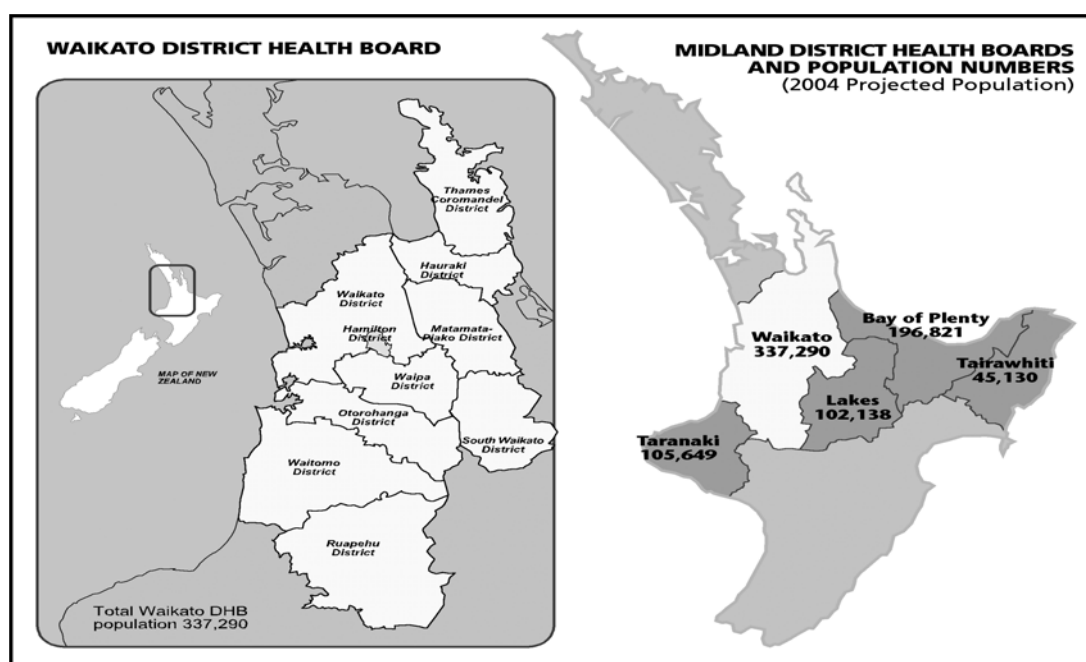
- Waikato DHB is also part of the Midland region that includes the Bay of Plenty, Lakes, Tairāwhiti, and Taranaki districts. Waikato has some accountability through regional contracts for services along the cancer continuum.
- Delivering health services is a challenge in the Waikato. The Waikato DHB spans a large geographical area of 21,200 km², and much of the area (40%) is rural² and isolated (for example, in the Waikato DHB portion of Ruapehu TLA, the population density is two people per km²).

Table 1: Waikato DHB Population and Density by TLA

TLA	2004 Pop ⁿ	% of total	Area (km ²)	Density per km ²
Hamilton City	129,300	38%	94	1,376
Hauraki District	16,900	5%	1,188	14
Matamata Piako District	30,300	9%	1,754	17
Otorohanga District	9,500	3%	1,999	5
Ruapehu (WDHB part) District	7,930	2%	4,019	2
South Waikato District	23,300	7%	1,816	13
Thames Coromandel District	26,500	8%	2,206	12
Waikato District	42,400	13%	3,317	14
Waipa District	41,500	12%	1,474	28
Waitomo District	9,660	3%	3,533	3
Waikato DHB	337,290	8.31% of NZ	21,220	16
New Zealand	4,060,900		268,021	15

Source: Waikato DHB Health Needs Assessment and Analysis 2005

² Areas with less than 10,000 people



Population Overview

- Waikato DHB comprises 8.3% of New Zealand's population with 337,290 people (2004 estimate).
- 49.4% of the Waikato DHB population are male; 50.6% female.

Overview of the residents of the Waikato DHB TLAs

Table 2: Characteristics of the TLA populations

	TLA									
	Ham	Hauraki	Mata-	Otoro-	Ruapehu	Sth	Thames-	Waikato	Waipa	Waitomo
	City		Piako	hanga		Waikato	Coro			
Usually resident population count (2001)	114915	16773	29475	9279	9051	23478	25179	39858	40299	9450
Percentage (%) change from March 1996	6.0	-2.9	-0.6	-3.9	-12.0	-5.9	1.4	1.8	5.0	-2.9
Percentage (%) of people aged <15	23	25	25	26	27	29	19	27	24	26
Percentage (%) of people aged >65	10	15	14	10	12	10	20	10	13	11
Percentage (%) of Maori	18.6	18.1	12.8	26.7	37.1	29.2	14.3	25.9	14.7	37.4
Percentage (%) of ppl earning <\$20 000	53.8	60.3	49.8	54.6	57.2	54.5	63.1	53.3	50.4	55.7
NZDep01;Most deprived (7-10) (%)	48	53	29	44	80	62	53	47	24	57

Source: Waikato DHB: District-Wide Health & Disability Needs Assessment Information Pack

Tables 1 and 2 give an indication of the characteristics of TLA populations of the Waikato DHB. Particularly pertinent points related to each TLA above include:

- The percentage of each TLA's population that is Māori.
- The percentage of those in the most deprived SES groups.
- The percentage of each TLA's population that is elderly.

Table 3: Characteristics of the Waikato DHB population versus NZ population

	WDH B	NZ
Usually resident population count (2001)	317751	3737280
Percentage (%) change from March 1996	1.5	3.3
Percentage (%) of people aged <15	24	23
Percentage (%) of people aged >65	12	12
Percentage (%) of Māori	20.2	14.1
Percentage (%) of ppl earning <\$20 000	48.1	46.9
NZDep01;Most deprived (7-10) (%)	46	

Source: Waikato DHB: District-Wide Health & Disability Needs Assessment Information Pack

- Table 3 illustrates that compared to the NZ population as a whole, the population of Waikato DHB contains a higher Māori population (by percentage of total), and has a greater percentage of the population earning below \$20,000.
- The age structure (proportions of elderly and young) of Waikato DHB appears similar to that of NZ as a whole.

Population Projections

Table 4: Population projections for Waikato DHBs Territorial Local Authorities

Territorial Authority	2001	2006	2011	2016	2021
Hamilton City	119500	129200	136100	142900	150000
Hauraki District	17200	16900	16400	15800	15200
Matamata-Piako District	30300	29900	29200	28400	27500
Otorohanga District	9600	9400	9200	9000	8800
Ruaapehu District	9450	9072	8631	8127	7623
South Waikato District	24200	23300	22100	20800	19400
Thames-Coromandel District	25800	27300	28600	29800	31000
Waikato District	41300	42400	43200	43800	44200
Waipa District	41400	43000	44400	45800	47100
Waitomo District	9800	9600	9300	9100	8800
Total	328550	340072	347131	353527	359623

Source: Waikato DHB HNA 2005

- The Waikato DHB population is projected to grow by 9.5% from 2001 – 2021.
- The New Zealand population is growing faster than the Waikato DHB population.
- The Waikato DHB population expected growth areas will be Hamilton City, Waikato, Waipa and Thames-Coromandel TLAs.
- Hamilton City is contributing the most to the population growth and will make up 41.7% of the total district population by 2021 (versus 38% now).

- The Māori population is forecast to increase by 14.5% from 2004 to 83,850 in 2016. Māori will make up 23.6% of the total Waikato DHB population in 2016.
- The Pacific people population is expected to grow by 14% from 2004 to 8,640 in 2016.
- The “other” ethnicities population is forecast to grow by 2.2% from 2004 to 262,110 in 2016.

Population Projections by Age

- The Waikato DHB population is ageing. In 2016 there will be an expected increase of 40% of people aged 65+ compared to the current level at 40,760, and the population aged 85+ is predicted to increase by 75% to 7,540 by 2016.
- For the Waikato DHB as a whole it is predicted that the children and youth population will decline, contrasting with a rise in the elderly population.

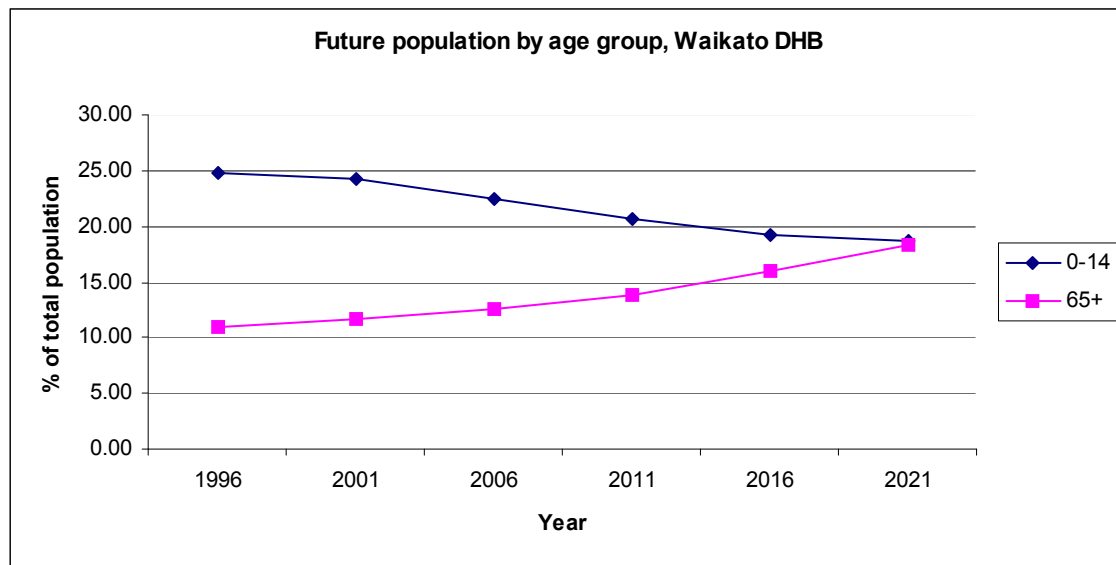
Table 5: Future population by age group, Waikato DHB, 1996-2021.

Raw Numbers	1996	2001	2006	2011	2016	2021
Total Population	321048	328550	340510	347940	354600	360920
0-14	79672	79500	76260	71570	68230	67730
65+	35179	38460	42810	48360	56910	66050
Percent of Total Population (%)	1996	2001	2006	2011	2016	2021
0-14	24.82	24.20	22.40	20.57	19.24	18.77
65+	10.96	11.71	12.57	13.90	16.05	18.30

- The working age population (15-64 years) is predicated to fall from 65% to 56% of the total population.
- Only 4% Māori are over the age of 65 years. The age that defines an older Māori person starts at 55 years + compared to 65 years + for non-Māori. The proportion of older Māori over the age of 55yrs+ by 2021³ is projected to be 16% of the total Waikato DHB Māori population.
- Population growth for the Māori population is projected to occur across all age ranges, and a similar trend is expected to be observed for Pacific people. In contrast, the “Other” ethnicities will experience a growth in their elderly populations, versus a decline in their youth population.

³ Waikato DHB Mauriora ki nga Kaumātua - Strategy 2003-2006

Figure 1: Future population by age group for the Waikato DHB



Ethnicity

- 22% (73,240) of people identify as Māori in the Waikato DHB population, this comprises 12% of the total New Zealand Māori population. The percentage of Māori population in the Waikato DHB is greater than the national average of 15%.
- Approximately 2% (7,580) of the Waikato DHB population identify as Pacific people compared to the national average of 6%.
- Approximately 76% of the Waikato DHB population are “other ethnicities” compared to the national average of 79%.

Figure 2: Ethnicity and age structure for the Waikato DHB

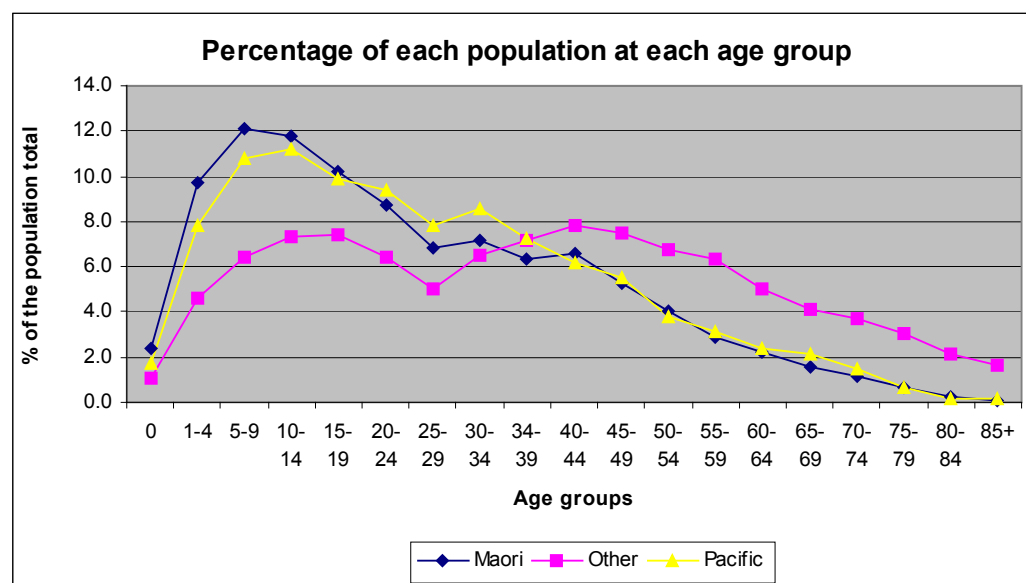


Figure 2 reveals that the Māori and Pacific Island populations show a younger age structure than the “Other” population groups, with higher proportions of younger people. The “Other” population consists predominantly of New Zealand Europeans and this population is skewed toward older age groups.

Deprivation

- Māori have the poorest health status of any ethnic group in New Zealand.
- 47% of Waikato DHB Māori are in the most deprived quintile.
- Avoidable mortality rates increase steadily with deprivation. Waikato DHB has more people living in the highest areas of deprivation⁴; 25.7% compared with the national average of 20%. Māori and Pacific People have higher proportions living in lower socio-economic areas.
- Children from low-income families are experiencing poorer health outcomes than the overall child population when compared to national data.

Disability

- 21% of the Waikato DHB population have some type of functional disability and it is estimated that 12% have a disability that requires assistance.
- The most common cause of disability is disease/illness. Mobility disabilities are the most common disability in adults.
- Māori and Pacific People have a higher rate of disability compared to other ethnic groups.
- Compared to non-Māori, Māori with disabilities are less likely to live in residential facilities such as rest homes, private hospitals and long-stay residential units.
- 56% of the population over 65 years are expected to have some type of functional disability, with 75% expected to require assistance.
- 11% of all people aged 75 years and over living in households have severe disability.
- 4% of children use special education because of long term health conditions.

⁴ Deprivation (NZDep2001) is a socio-economic measure that combines nine variables from the 2001 census that reflect eight dimensions of deprivation. Deprivation is based on geographical location rather than individuals.

Mortality

- The average number of Waikato DHB population deaths per annum⁵ is 3,455.
- Avoidable mortality⁶ in New Zealand has decreased by 40% between 1980 and 2000 and unavoidable mortality has decreased by 20%.
- Almost 80% of avoidable deaths occur between 45–74 years, dominated by chronic diseases such as ischaemic heart disease and smoking related cancer.
- Māori have a lower life expectancy than non-Māori. Māori men continue to have the lowest life expectancy of any of the major population groups in New Zealand⁷. In 1995-97 life expectancy at birth was 67.2 years for Māori males, compared with 75.3 years for non-Māori males and 71.6 years for Māori females.
- Māori and Pacific Peoples have higher avoidable and unavoidable mortality rates than non-Māori⁸. In addition males have higher avoidable and unavoidable mortality rates compared to females in all ethnic groups.

⁵ Waikato DHB Mortality 1998 – 2000.

⁶ Avoidable mortality includes deaths that are potentially preventable through population-based interventions (e.g. health promotion) as well as those responsive to preventative or curative interventions at an individual level. A cut off age of 75 years has been applied.

⁷ Ministry of Health, 1999

⁸ See fact sheet on Mortality

Cancer Burden Analysis

The Central Technical Advisory Group has access to all national data sources and has provided the Waikato DHB data; this includes data from the New Zealand Health Information Service (NZHIS) and New Zealand Cancer Registry (NZCR). The population numbers involved in the data are small and thus analysis provided must be circumspect.

This plan looks at the two main epidemiological measures - cancer incidence and cancer mortality. In addition, there are coding/grouping differences between incidence and mortality data. NZHIS indicates that there are a relatively high proportion of registrations where ethnicity is not recorded.

Cancer incidence is the number of new diagnoses of cancer among the population over a given period of time. The principal source of this data is the New Zealand Cancer Registry.

Cancer mortality is the number of deaths from cancer among the population over a given period.

An overview of cancer trends in New Zealand is provided below followed by a summary of data available on cancer in the Waikato DHB population.

Key Cancer Themes

The Minister of Health published *Cancer in New Zealand: Trends and Projections* (Ministry of Health, 2002) and identified that two thirds of cancer increase is due to demographic changes, in particular, growth in the adult ageing population. The *Unequal Impact: Māori and Non-Māori Cancer Statistics 1996–2001* documents ethnic disparities in cancer risk, incidence and outcome. The following are key themes of cancer trends in New Zealand.

- The incident rate of age standardised adult cancer is predicted to continue to increase over the next decade at a slower rate than the past decade. For females it has increased by 450 per 100,000, or 6%, and for males it has increased by 510 per 100,000, or 7% (after adjusting for the PSA effect⁹).
- For the period of 1996 – 2001 the age-standardised incidence rate for all cancers was 223 per 100,000 for Māori females, 25% higher than the incidence for non-Māori females (175.5 per 100,000). The age-standardised incidence rate for Māori males was 218.9, 11% higher than the non-Māori male rate of 197.
- The mortality rate for age standardised adult cancer has fallen and the decline is expected to continue at an accelerated rate to 198 per 100,000 for males and 162 per 100,000 for females. However, because of the impact of the ageing and growing population, the total annual number of cancer deaths is forecast to increase by 20% from 1997 to 2012 (males 17% and females 24% for this timeframe).

⁹ Use of prostate specific antigen (PSA) testing has rapidly inflated the rate of prostate cancer – this is known as the PSA effect.

- The most common causes of cancer deaths in females are breast, colorectal and lung cancers. The incidence rate of female breast cancer is projected to increase and it is the most common cause of cancer deaths in females. Benefits from screening may further reduce mortality by about 11–15% by 2012. Lung cancer will overtake breast cancer to become the leading cancer causing mortality among women by 2012. Female tobacco-related cancer burden is projected to reach 10% of all cancer registrations and 21% of all cancer deaths by 2010.
- In males the most common causes of cancer deaths are lung, colorectal and prostate cancers. Prostate cancer will become the first ranked cancer for both incidence and mortality in males (with the PSA effect excluded).
- In 1998 mortality from cancer was 51% higher for Māori males and 78% higher for Māori females than for non-Māori, due to higher incidence and poor survival rates, especially for lung cancer, the leading cause of cancer death in 1998. Māori have higher incidence rates for cancer of the liver, stomach, lung, cervix uteri and testis than non-Māori.
- “Māori patients are less likely than non-Māori to be diagnosed at an early stage of the cancer, and more likely to be diagnosed once the cancer has spread” (Robson. B. Purdie. G & Cormack D., 2006).
- For Pacific men incidence was highest for cancers of the lung, prostate, stomach and colorectal. Pacific female incidence was highest for cancers of the breast, colorectal, cervix, lung and ovary.

It is predicted that there will be a continued improvement in cancer survival for many different cancers and a reduction in incidence for others. The following table demonstrates site-specific cancers projected to undergo a greater than 10% change in age standardised incidence and/or mortality rates in the period 1996/97 to 2011/12.

Waikato cancer incidence is predicted to increase from the 2001 rate by almost 25% by 2011 to more than 1800 cases per annum.

Again, despite fewer adults with cancer dying from the disease, cancer deaths are projected to rise each year because of population growth and an ageing population.

Table 6: Adult Site-Specific Cancers Projected Change

1996/97 – 2011/12	Projected to Increase	Projected to Decrease
Incidence	Bladder Kidney Leukaemia Myeloma Non-Hodgkin's Lymphoma Liver (males) Prostate (males) Testis (males) Thyroid (males)	Colorectal Stomach Lip, Mouth and Pharynx (males) Lung (males) Pancreas (males) Cervix (females) Melanoma (females)
Mortality	Non-Hodgkin's Lymphoma Liver (males) Lung (female)	Colorectal Stomach Pancreas Bladder (males) Leukaemia (males) Lung (males) Breast (female) Cervix (females) Ovary (females)

Data Source: Ministry of Health, (2002). Cancer in New Zealand Trends and Projections

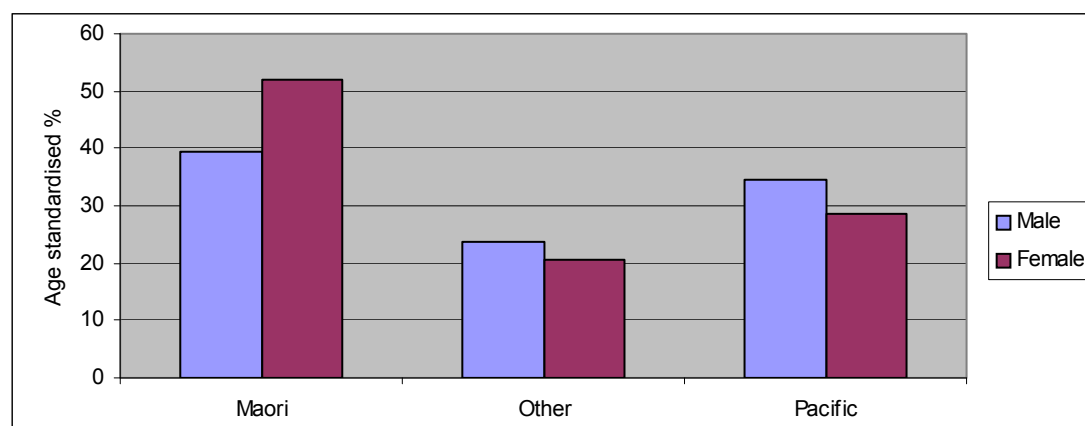
Some Risk Factors associated with Cancer

Some of the risk factors that have been implicated in the development of cancer include:

- Tobacco use or exposure to tobacco smoke: has been linked with lung cancer.
- Inactivity and obesity has been linked with bowel, breast and oesophageal cancers.
- Diets high in fibre and low in fat may reduce the risk of oral, stomach and bowel cancers.
- Alcohol consumption may increase the risk of cancers of the oral cavity, pharynx, oesophagus and larynx.

Tobacco

Figure 3: Cigarette Smoking Prevalence, 15+ years



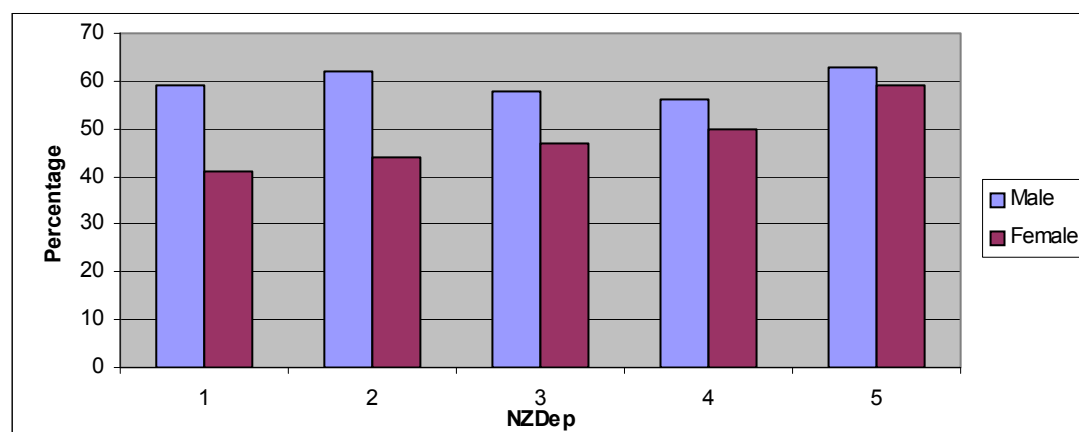
Source: Waikato DHB HNA 2005

- Figure 3 illustrates that the smoking rates for Māori and Pacific Peoples exceed that of the “other” population.
- Over 50% of Māori females smoke.
- More males than females smoke for the Other and Pacific populations, however the trend is reversed for the Māori population.

Obesity

- Figure 4 shows that overweight and obesity are correlated with deprivation for the female population, but this is not the case for the male population.
- While the percentage of females being overweight or obese varies from about 40% (NZDep 1) to 60% (NZDep 5), the percentage of males being overweight or obese is around 60% for all deprivation groups.

Figure 4: Age-standardised prevalence of overweight or obesity



Source: Waikato DHB HNA 2005

Physical Activity

Table 7: Percentage of young people active (5-17yrs): 1997-2001

Gender	Māori	Pakeha	Pacific	Other	Total
Male	72	76	53	63	73
Female	70	64	52	55	64
Total	71	70	52	59	68

Source: Waikato DHB HNA 2005

Table 8: Percentage of adults active (18+ yrs): 1997-2001

Gender	Māori	Pakeha	Pacific	Other	Total
Male	69	71	68	57	69
Female	65	68	58	51	66
Total	67	69	63	54	68

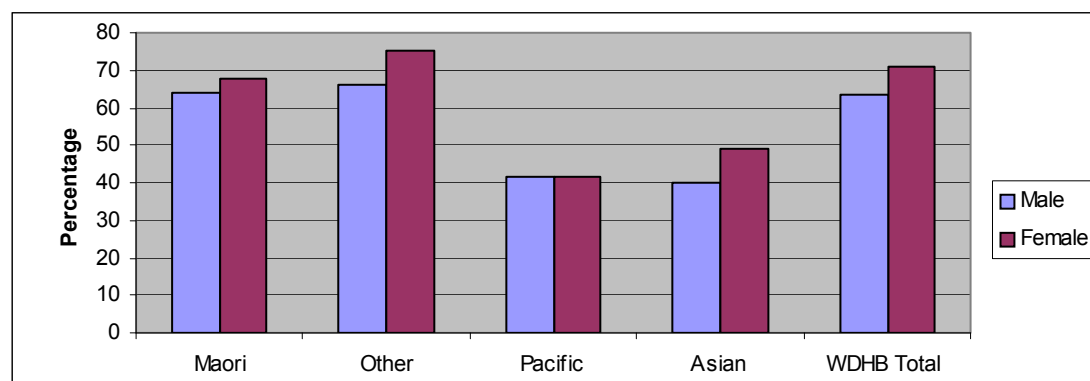
Source: Waikato DHB HNA 2005

- Overall, the percentage of active young people and adults is the same.
- Males are more active than females across all age groups and ethnicities.
- In the adult population, Other (mainly Asian) are the least active of the groups, while Māori and Pakeha are the most active for both young people and adult population groups.
- Only one out two Pacific young people are active, compared to close to three out of four for Māori and Pakeha young people.

Nutrition: Fruit and Vegetables

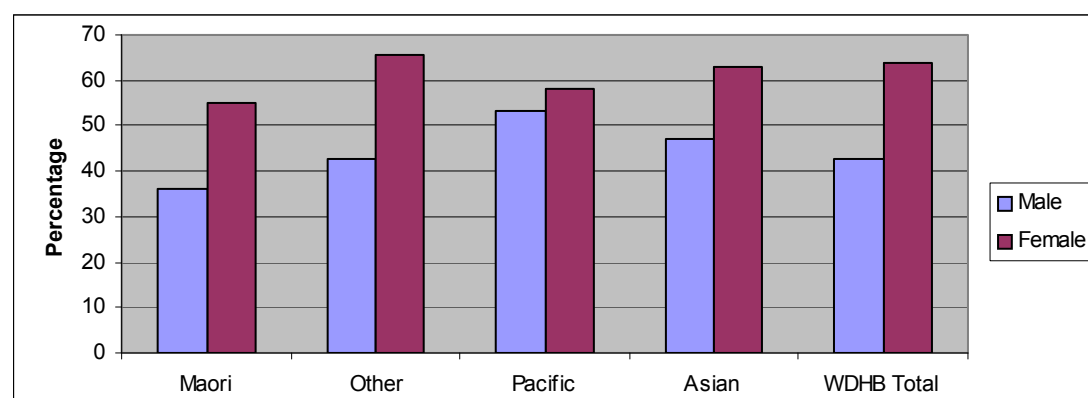
- Males and females of the Other (mainly New Zealand European) population are most likely to be eating at least three servings of vegetables per day; 66% for males, 75% for females.
- Over 60% of Māori males and females eat at least three servings of vegetables per day, however less than half of Pacific and Asian males and females do so.

Figure 5: Age standardised percentage of adults who eat at least three servings of vegetables per day



Source: Waikato DHB HNA 2005

Figure 6: Age standardised percentage of adults who eat at least two servings of fruit per day

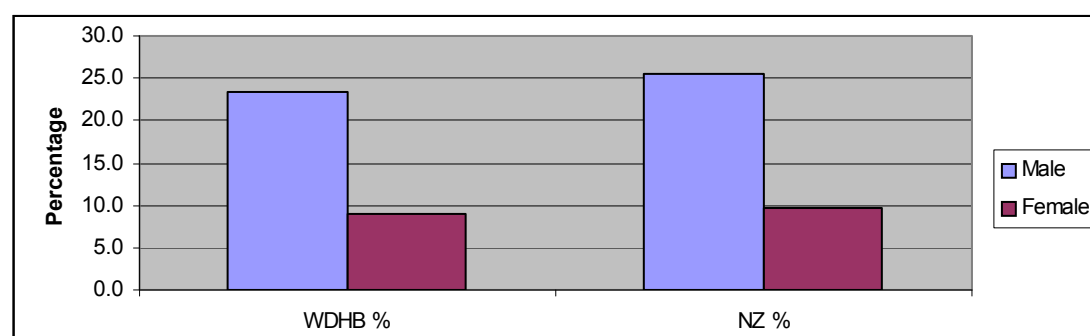


Source: Waikato DHB HNA 2005

- In the Waikato DHB, 20% more females than males eat at least two servings of fruit per day; this gender difference is seen in all ethnicities.
- Pacific males are the only male ethnic group where over 50% of the population consumes at least two servings of fruit per day.
- 65% of Other (mainly European) females consume at least two servings of fruit per day – the highest of any ethnic group.
- For both males and females, Māori are least likely to be consuming at least two servings of fruit per day of any of the ethnic groups.

Alcohol

Figure 7: Hazardous Drinking Pattern in Drinkers, 2003



Source: Waikato DHB HNA 2005

- The percentage of drinkers in the Waikato DHB who display hazardous drinking patterns is very similar to the national percentage.
- In the Waikato DHB, males (24%) are close to three times more likely than females (9%) to display hazardous drinking patterns.

Childhood Cancer

Cancer in children (0–14 years) is relatively uncommon and as a consequence the numbers are small, with leukaemia accounting for just over a third of all cases (Ministry of Health, 2002).

Age standardised incident rate of childhood cancer is projected to increase from:

Male	1996 – 17 per 100,000	2011 – 21 per 100,000
Female	1996 – 15 per 100,000	2011 – 19 per 100,000

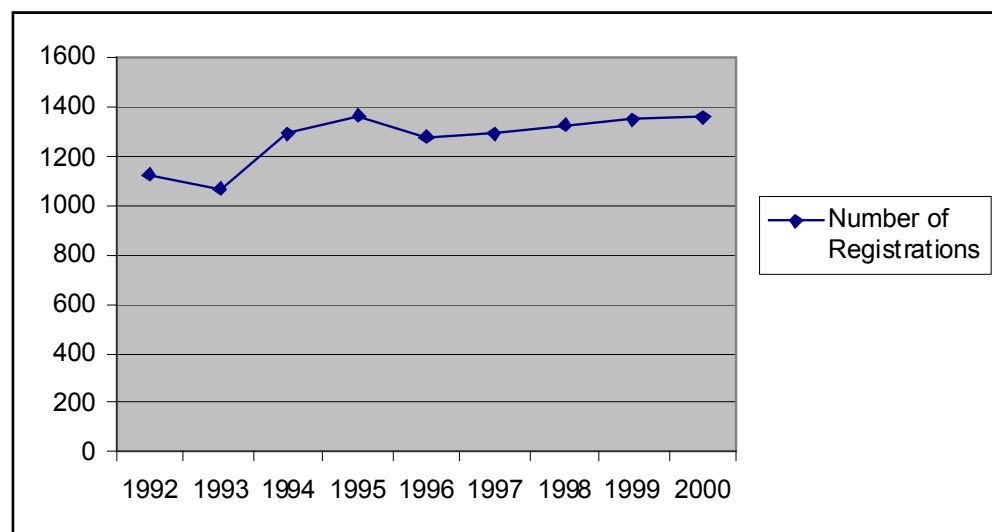
Age standardised mortality rate of childhood cancer is projected to decrease from:

Male	1996 – 7 per 100,000	2012 – 4 per 100,000
Female	1996 – 4 per 100,000	2012 – 3 per 100,000

Incidence

- Waikato DHB has had a steady increase in cancer registrations, from 1,121 in 1992 to 1,355 registrations in 2000

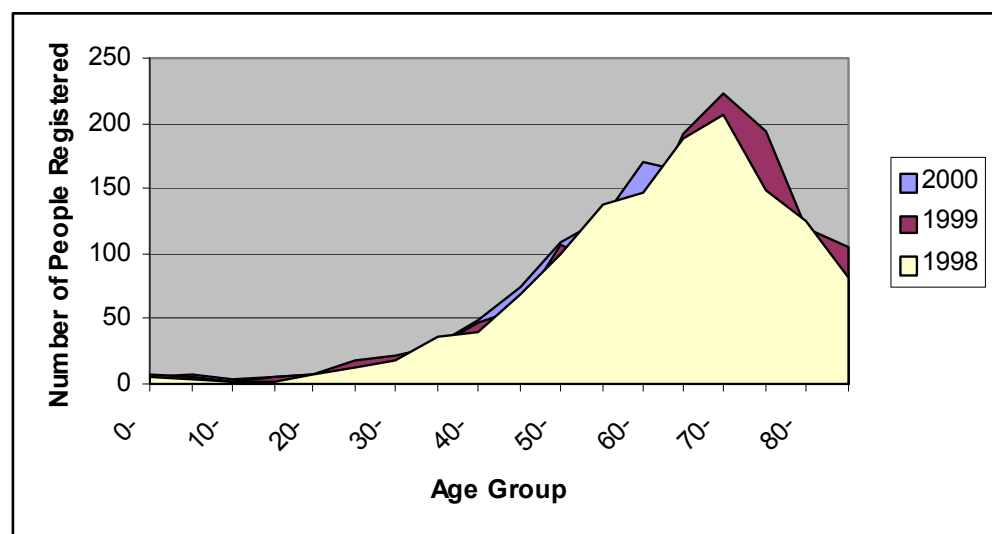
Figure 8: Waikato DHB Cancer Incidence 1992 – 2000



Source: NZ Health Information Service

- Māori cancer incidence rate is increasing at an approximate average of five cases per year.
- Non-Māori cancer incidence rate is increasing at an approximate average of eight cases per year.

Figure 9: Waikato DHB Cancer Incidence by Age Distribution 1998 – 2000



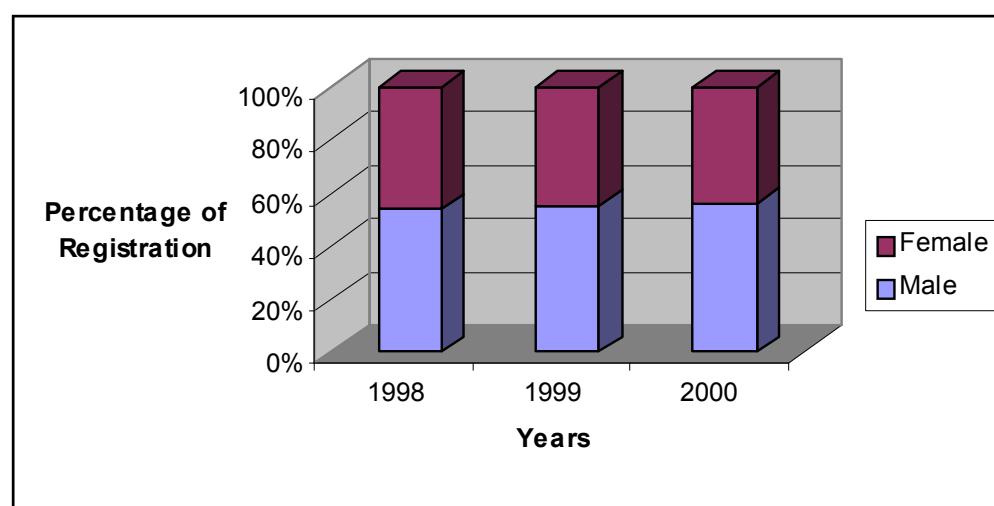
Source: NZ Health Information Service

- The bulk of the Waikato DHB cancer burden sits in the older population group. The 60–65 year age group has the largest number of cancer registrations, followed by the 75–80 year old group.
- The Waikato DHB population mix is 50.6% females and 49.4% males. The Waikato DHB cancer incidence by gender averaged over three years compared to New Zealand as a whole, is as follows:

Cancer Incidence 1998-2000	Females	Males
New Zealand	47%	53%
Waikato DHB	45%	55%

This illustrates that males face a comparatively larger cancer burden than do females.

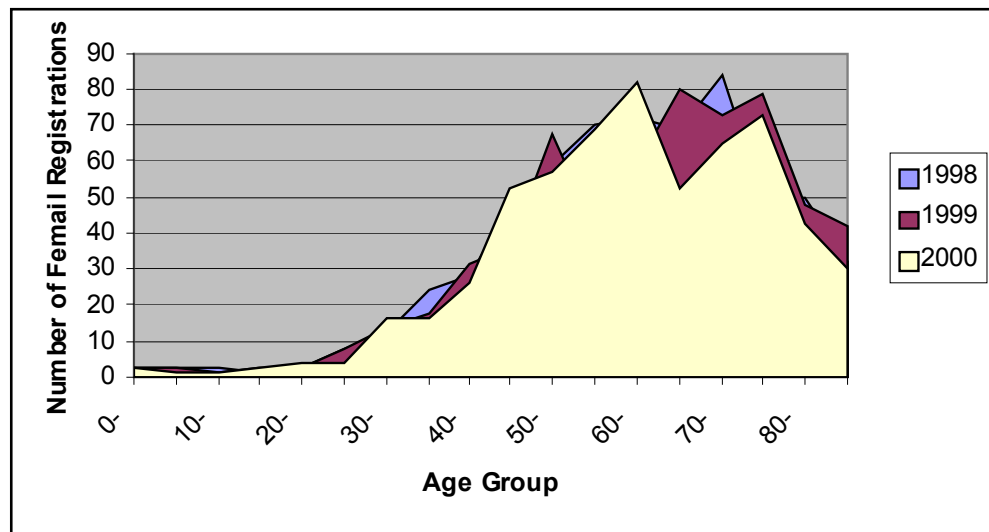
Figure 10: Waikato DHB Registrations by Gender Distribution 1998 – 2000



Source: NZ Health Information Service

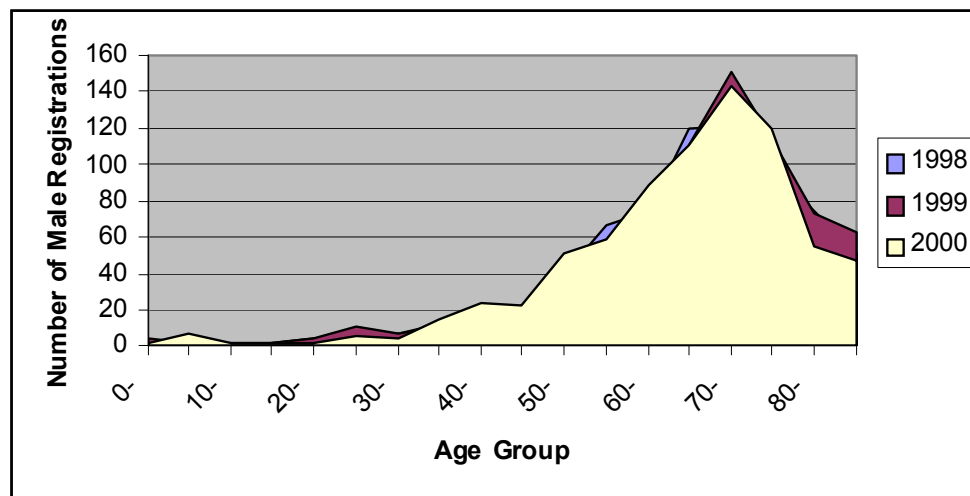
Figure 10 demonstrates that the gender mix has remained constant.

Figure 11: Waikato DHB Female Cancer Registration by Age Distribution 1998–2000



Source: NZ Health Information Service

Figure 12: Waikato DHB Male Cancer Registrations by Age Distribution 1998 – 2000



Source: NZ Health Information Service

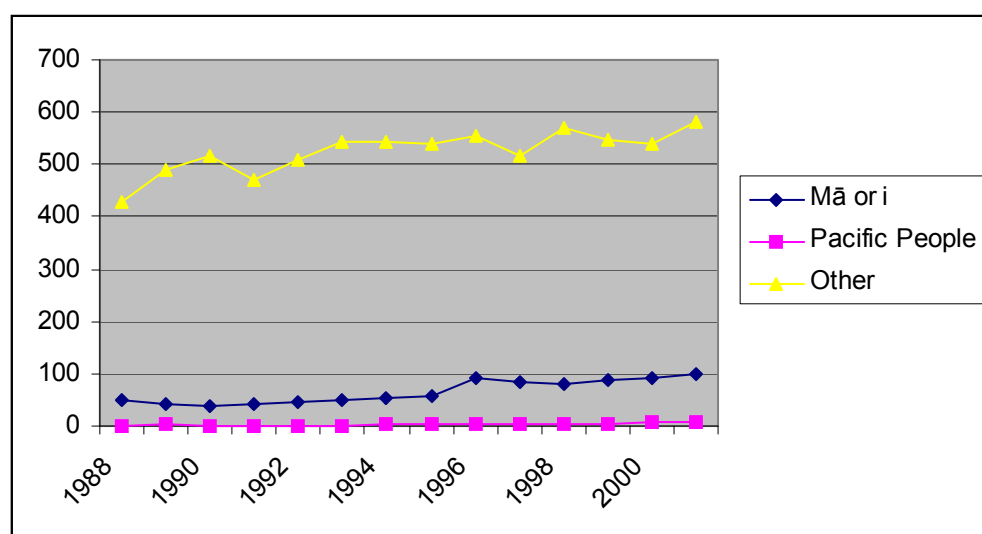
Figures 11 and 12 illustrate that the cancer burden for males is more skewed toward older population groups than is the case for females.

Whereas most of the cancer burden for males is compressed in the age ranges beyond age 65, the cancer burden is distributed in a more homogenous fashion for females in age groups beyond age 50.

Mortality

- 28% of Waikato DHB deaths are due to cancer.
- Non-Māori account for 88% of all discharged dead and the volume trend is increasing at an approximate average rate of 8 deaths per year.
- Māori account for 11% of the discharged dead volume and the volume trend is increasing at an approximate average rate of 5 deaths per year.

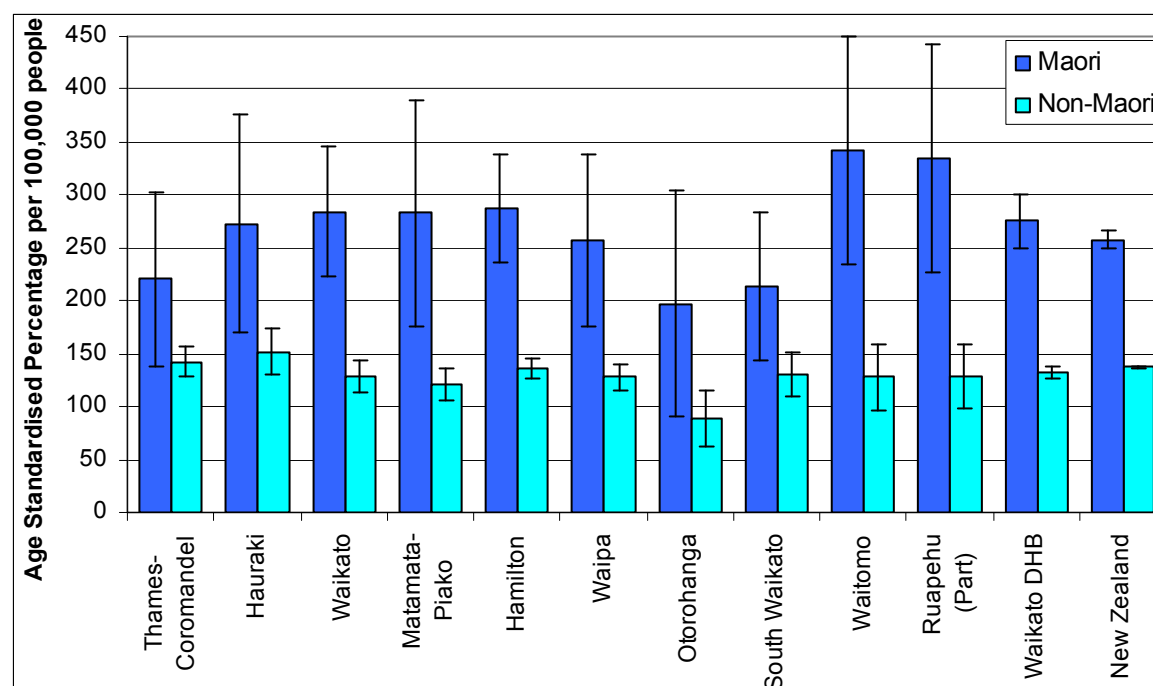
Figure 13: Waikato DHB Cancer Mortality – Ethnicity Volume Trend



Source: NZ Health Information Service

- The Waikato DHB mortality standardised rate is decreasing by 0.07 persons per 10,000 population per year. This rate is less than the national rate of 0.22 persons, per 10,000 population per year. The Waikato DHB mortality rate is generally higher than the national rate. But it is also generally ‘not significantly’ different to the national rate over the period covered by the data.
- The Waikato DHB territorial authorities’ mortality volume index, for the conditions of cancer, from 1988 is increasing at an average rate of 4.9 percentage points per year.
- Waikato TLA district has had the highest indexed volume growth for cancer since 1988. The Waikato TLA mortality volume, from 1988 is increasing at an average rate of 1.7 deaths per year.

Age Standardised¹ Mortality Rate per 100,000 people, Malignant Neoplasms (ICD10 C00-C97, ICD9 140-208), 1999-2003



Sources: New Zealand Health Information Service, National Minimum Data Set - Mortality. Statistics New Zealand, 2001 Census of Population and Dwellings.

- Waikato Māori have higher mortality than NZ age standardised Māori
- Approximately 1:3 Māori live in rural Waikato; there are concerns regarding the relative poor health status of rural Māori.

Avoidable Mortality

- Avoidable mortality rate¹⁰ in the Waikato DHB (112.9) is significantly higher than New Zealand overall. Two of the major cancer causes of avoidable mortality for the Waikato DHB in 2001 were lung cancer (11%) and colorectal cancer (7.8%).

Hospitalisation

- Avoidable hospitalisation¹¹ rates are slightly lower in the Waikato DHB than in New Zealand overall. The major cancer cause of avoidable hospitalisation for the Waikato DHB (1996 – 2003) was skin cancer (9%).

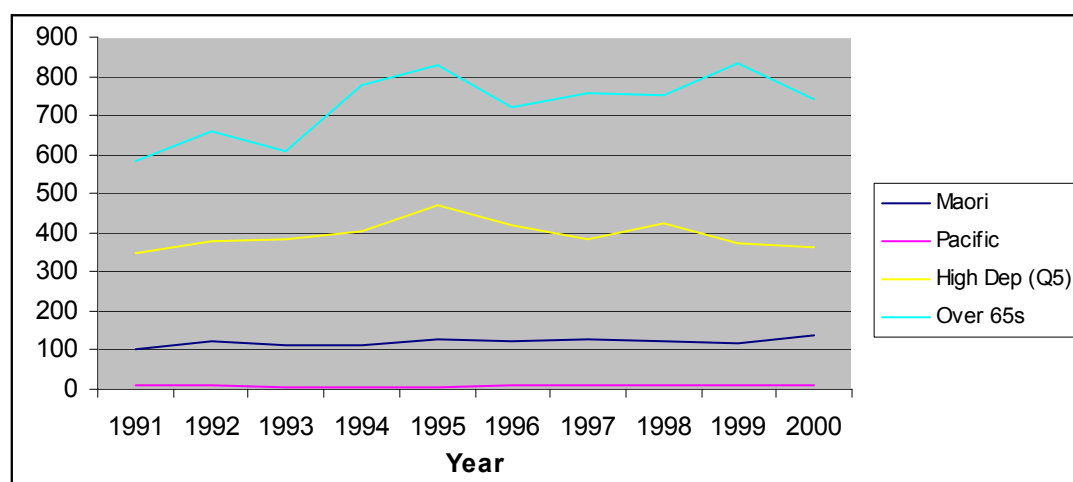
¹⁰ Avoidable mortality relates to deaths that are potentially preventable through population-based interventions (e.g. health promotion) as well as those responsive to preventive and curative interventions at an individual level (a cut off age of 75 years has been applied) DAP page 23

¹¹ Avoidable hospitalisation results from diseases sensitive to interventions delivered through primary care, and which could therefore potentially be avoided DAO page 24

- For both genders the age group with the highest hospitalisation volume is in the 70–74 age group.
- For Māori and Pacific People the age group with the highest hospitalisation volume is the 60–64 age group.
- For non-Māori the age group with the highest hospitalisation volume is in the 70–74 age group.
- The non-Māori standardised rate is decreasing by 0.17 persons per 10,000 population per year. This rate is less than the national rate of 0.33 persons, per 10,000 population per year. The DHB rate is generally lower than the non-Māori national rate. It is also generally ‘not significantly’ different to the national rate, over the period covered by the data.
- The Māori standardised rate is increasing by 0.54 persons per 10,000 population per year. This rate is less than the national rate of 0.82 persons, per 10,000 population per year. The DHB rate is generally higher than the Māori national rate. It is also generally ‘not significantly’ different to the national rate, over the period covered by the data.
- The Pacific People standardised rate is increasing by 1.16 persons per 10,000 population per year. This rate is less than the national rate of 1.32 persons, per 10,000 population per year. The DHB rate is generally lower than the Pacific People national rate. It is also generally ‘not significantly’ different to the national rate, over the period covered by the data.
- In Waikato DHB the deprivation highest volume proportion of deaths for cancer is the deprivation 5 quintile. The national highest volume proportion is deprivation 4 quintile.

Cancer Registrations and Mortality by Population Priority

Figure 14: Total Cancer Registrations for the Waikato DHB by Population Priority



Source:

Figure 14 shows that from 1991-2000 the general trend has been for an increase in the number of cancer registrations for each of the population priority groups in the Waikato DHB. The high deprivation group (Quintile 5) is the exception, with its yearly registrations fluctuating, but with the 2000 registrations only marginally higher than the equivalent number in 1991.

Figure 15: Registrations by Tumour Group for Population Priorities: 1992-2000 Total

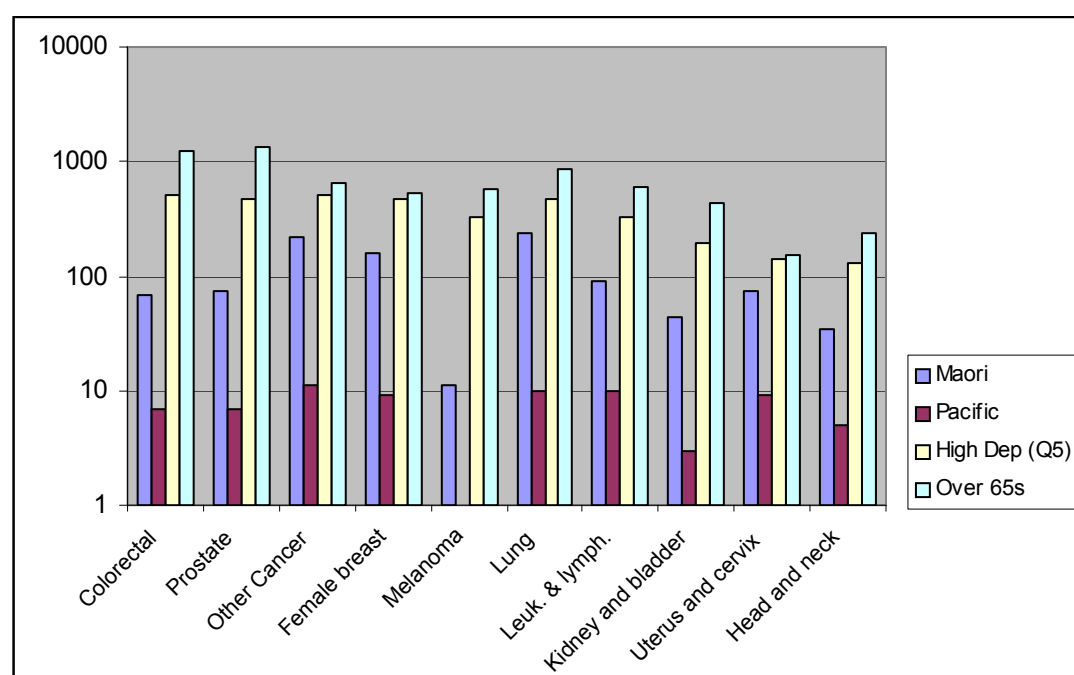


Figure 15 illustrates which tumour groups are most prevalent in each of the population priority groups for the Waikato DHB.

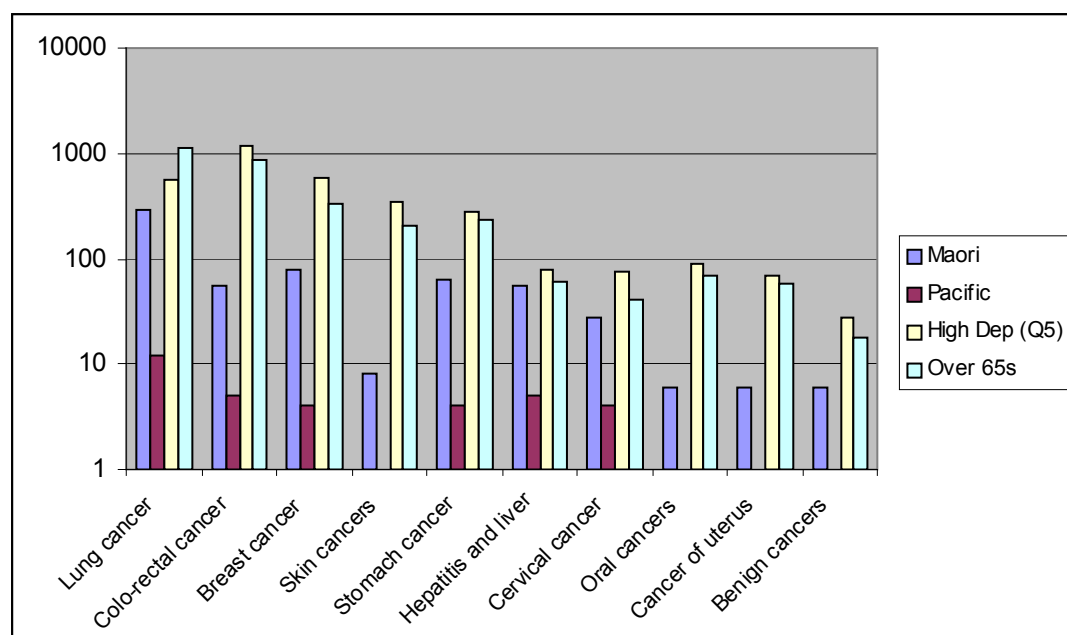
- In the Māori and Pacific populations, lung cancer can be seen to be the commonest cause of cancer registrations.
- Colorectal, breast, and prostate cancers are the commonest causes of cancer registrations in the high deprivation (quintile 5) population, while prostate cancer followed by colorectal cancer are the commonest causes of cancer registrations in the elderly population.

Figure 16 shows the leading causes of cancer mortality in each of the population priority groups for the Waikato DHB.

- In the Māori and Pacific populations lung cancer is the commonest cause of cancer mortality.

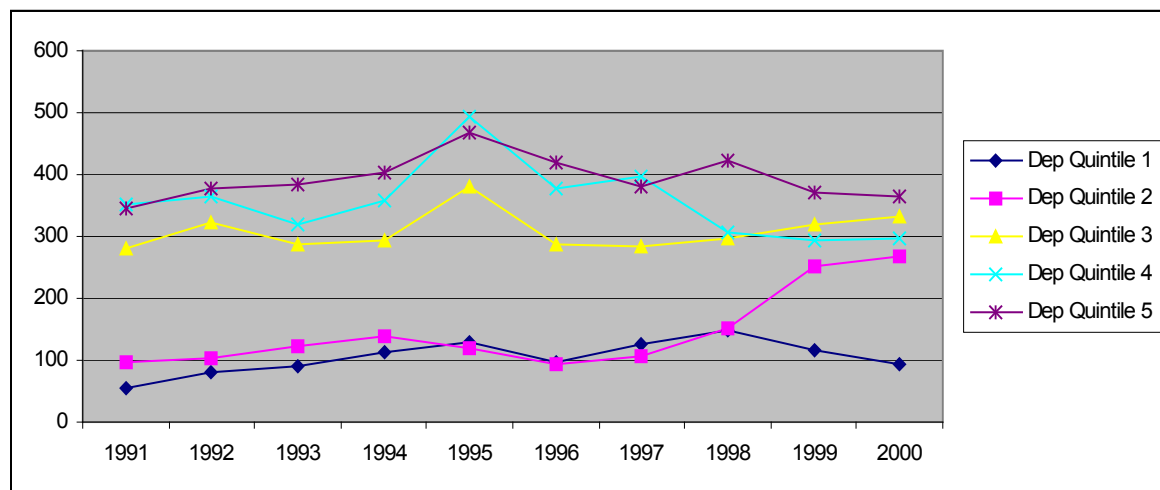
- Colorectal, breast and lung cancers are the leading causes of cancer mortality in the high deprivation and elderly populations.

Figure 16: Mortality: By Tumour Group for Population Priorities: 1988-2001 Total



Cancer Registrations by Deprivation Quintile

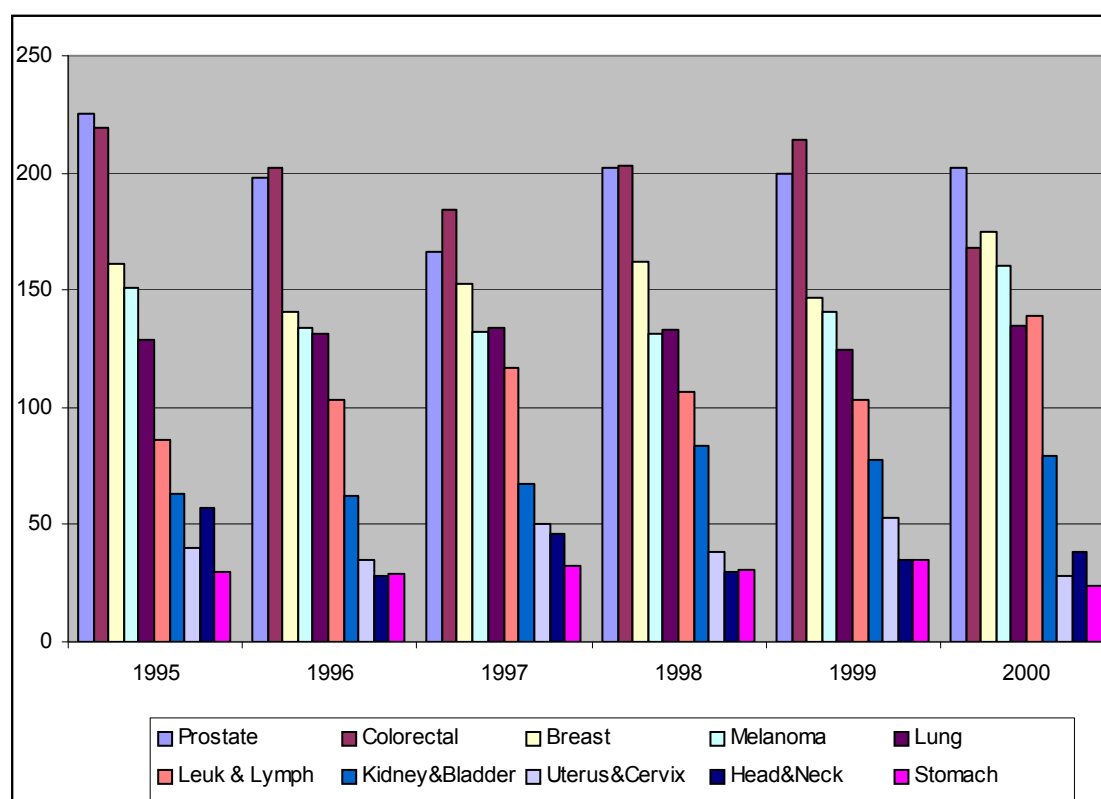
Figure 17: Cancer Registrations by Deprivation Quintile



- Figure 17 below illustrates that for the Waikato DHB, the number of cancer registrations is greatest for the higher deprivation quintiles.
- Accordingly, deprivation quintile 5 has the greatest number of registrations, followed by deprivation quintile 4.

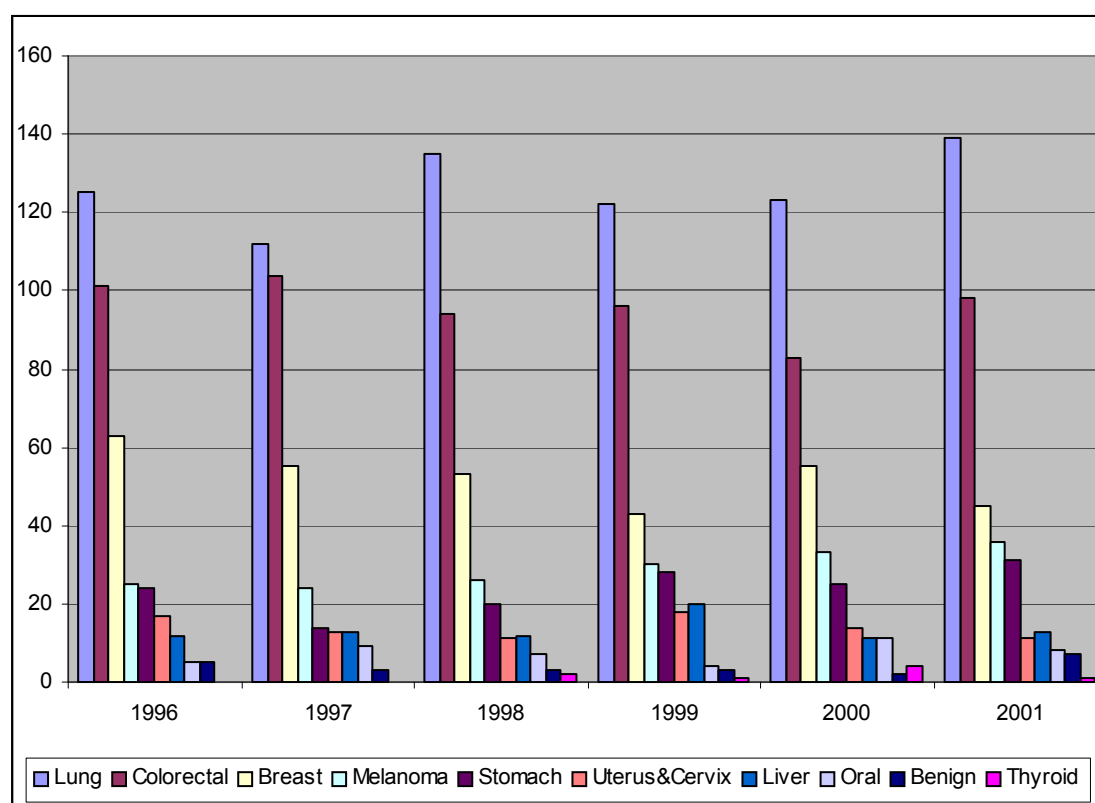
Cancer Registrations and Mortality by tumour group

Figure 18: Cancer Registrations by Tumour Group: 1995-2000



- Figure 18 shows that the annual number of registrations for each of the ten most common tumour groups has remained relatively constant from 1995-2000.
- In order, the ten tumour groups with the most cumulative registrations in the period of 1995-2000 are; prostate, colorectal, breast, melanoma, lung, leukemia and lymphoma, kidney and bladder, uterus and cervix, head and neck, stomach.

Figure 19: Cancer Mortality by Tumour Group: 1995-2000



- Figure 19 shows that the annual number of deaths for each of the ten most common tumour groups has remained relatively constant from 1996-2001.
- In order, the ten tumour groups with the most cumulative deaths in the period of 1996-2001 are; lung, colorectal, breast, melanoma, stomach, uterus and cervix, liver, oral, benign, thyroid.
- Although lung cancer is only the fifth most common cause of cancer registrations, it is the most common cause of cancer mortality. Colorectal cancer, breast cancer and melanomas are the second, third, and fourth most common causes of cancer registrations *and* mortality respectively.
- Despite not being in the top ten tumour groups for cancer registrations; liver, oral, benign and thyroid cancers are in the top ten causes of cancer mortality, although the absolute number of deaths due to these cancers is comparatively small.
- How is prostate cancer the number 1 cause of cancer registrations, but nowhere to be seen on the list of cancer mortality?

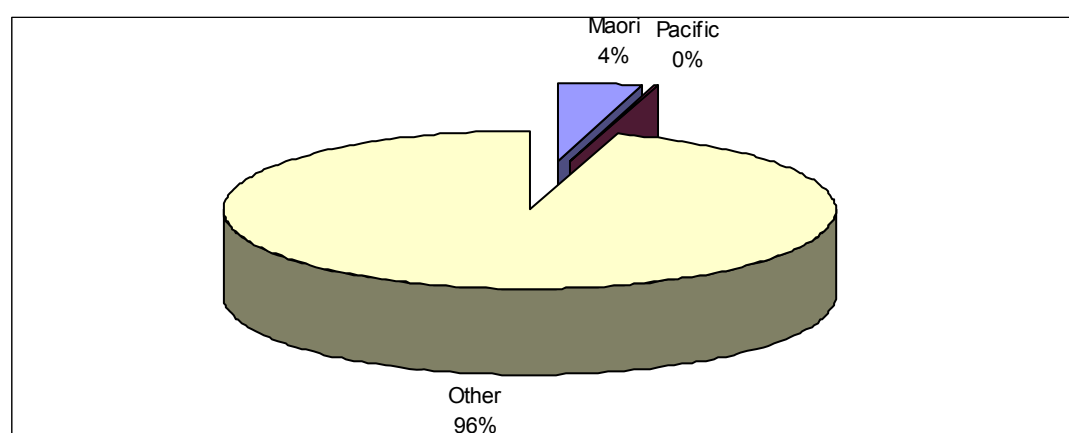
The following data and information relate to the 10 most common tumour groups as experienced by the Waikato DHB population, in order of prevalence. *All values are crude, and non age-standardised.*

Prostate cancer

The Public Health Intelligence Unit preliminary analysis of survival for key cancers by DHB (NZHIS, 2007) identified that Waikato DHB the excess risk of potentially preventable prostate cancer deaths varies significantly from the national mean. The reasons for these differences are not known, or whether they are truly preventable, therefore further work is required to validate findings.

Colorectal cancer

Figure 20: Proportions of Colorectal Cancer Mortality by Ethnicity



The “other” population group accounts for the vast majority of the colorectal cancer mortality burden. This is unsurprising as Figure 22 shows that the majority of colorectal cancer mortality occurs in older population groups, and the “other” population has an older age structure than Māori and Pacific Peoples – see Figure 2 for this.

Figure 21: Total Number of Colorectal Cancer Deaths by Deprivation Quintile

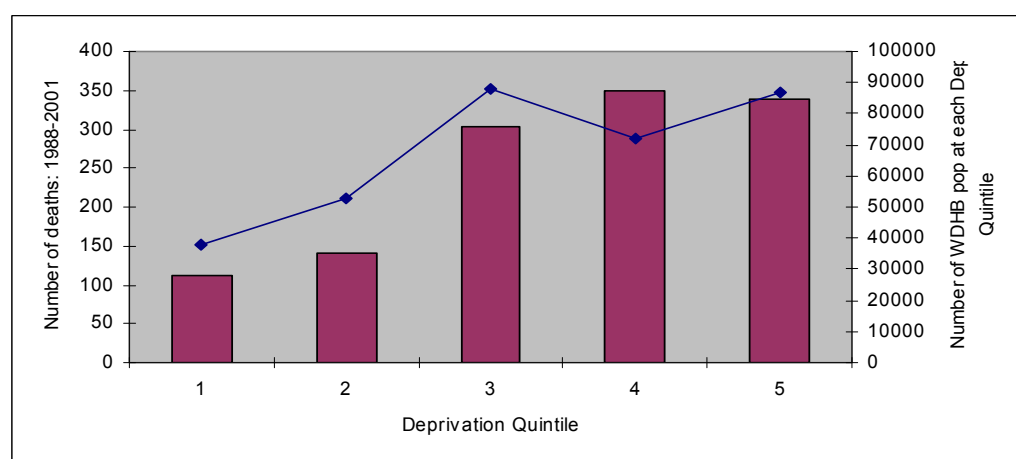
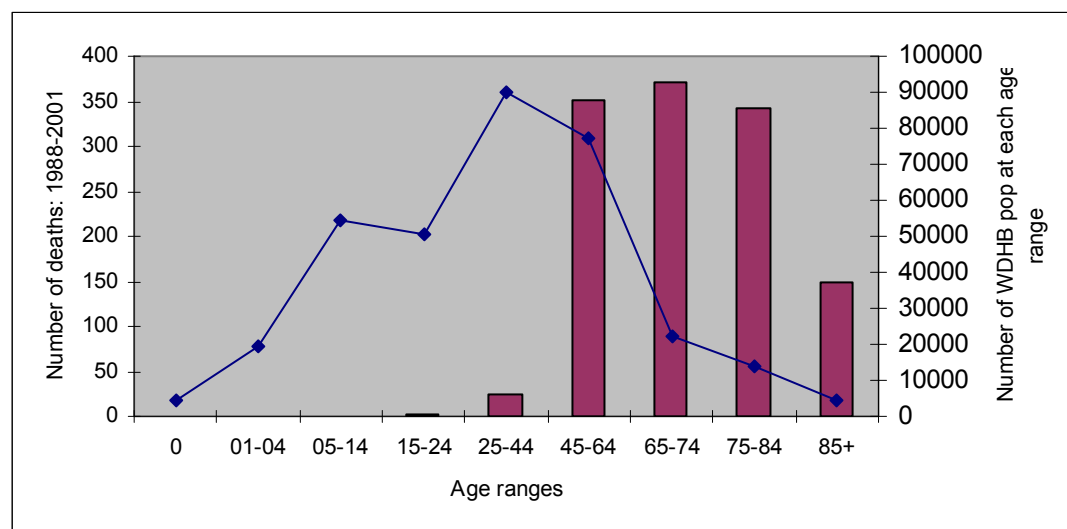


Figure 21 illustrates that deprivation quintile 4 accounts for the majority of the colorectal cancer mortality burden, although quintiles 3 and 5 also have high numbers of colorectal cancer deaths.

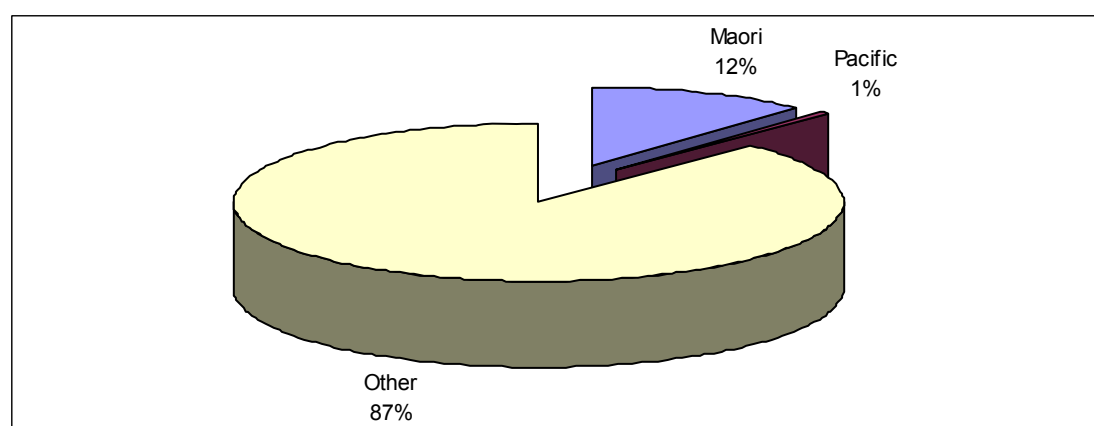
Figure 22: Colorectal Cancer Mortality by Age Ranges



Despite the fact that the Waikato DHB population has a majority of the population in the 15-64 age group (see blue line), the majority of colorectal cancer mortality is distributed in the age range from 45-84. This illustrates that colorectal cancer mortality occurs mainly in the middle-older age groups. Colorectal cancer mortality is disproportionately high in the 65+ age ranges compared to population size at each age group (see blue line), illustrating the skew of mortality toward older ages.

Breast Cancer

Figure 23: Proportions of Breast Cancer Mortality by Ethnicity



The “other” population group accounts for the majority of the breast cancer mortality burden. This is unsurprising as Figure 25 shows that the majority of colorectal cancer mortality occurs in middle-older age population groups, and the “other” population has an older age structure than Māori and Pacific Peoples – see Figure 2 for this. That

a higher proportion of Maori make up the mortality of breast than colorectal cancer can partly be explained in that the breast cancer mortality occurs more in middle-aged groups (45-64) than does colorectal cancer mortality (see figure 25).

Figure 24: Total Number of Breast Cancer Deaths by Deprivation Quintile

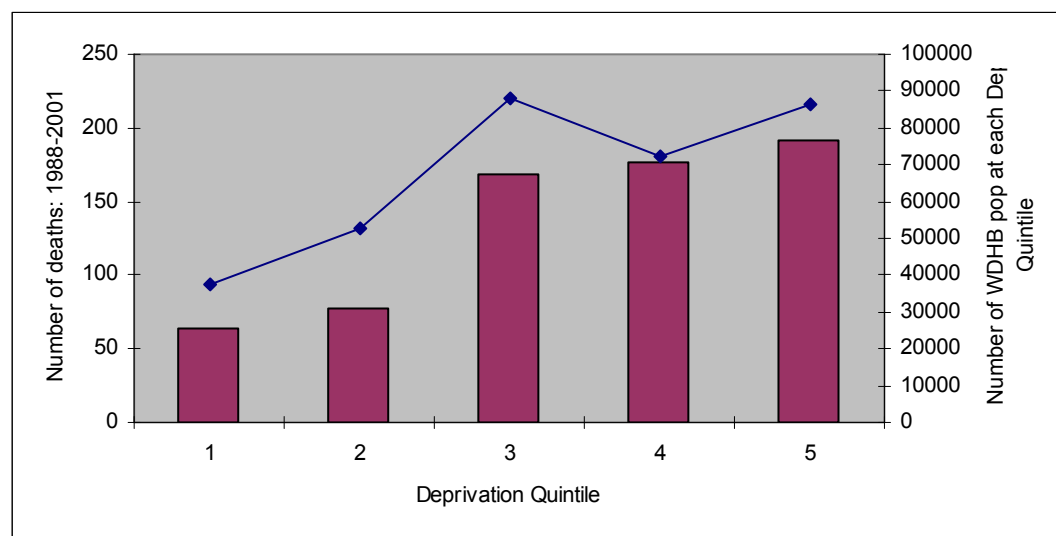
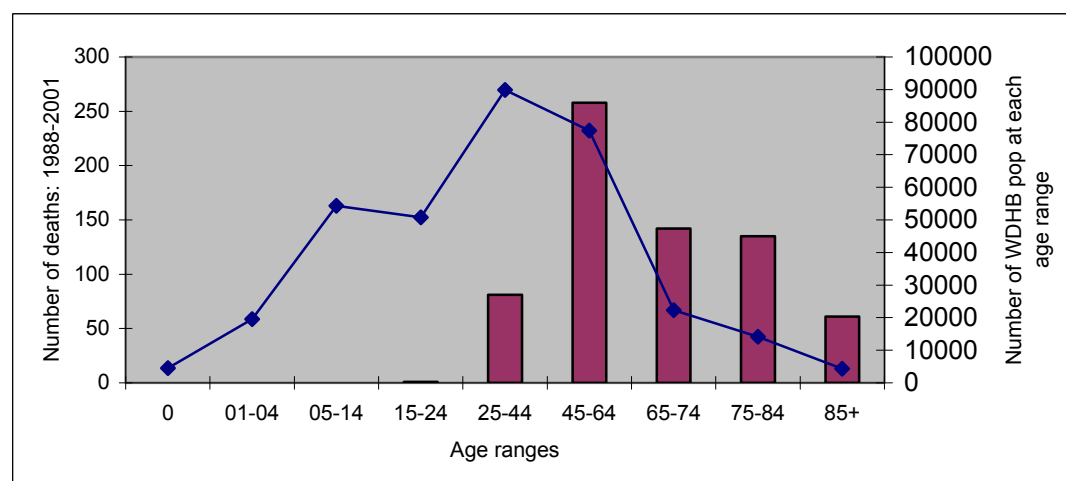


Figure 24 illustrates that deprivation quintiles 3, 4 and 5 account for the majority of the breast cancer mortality burden, hinting that deprivation plays less of a role in breast cancer distribution through the population (i.e. deprivation quintile 3 contributes as much as quintile 5).

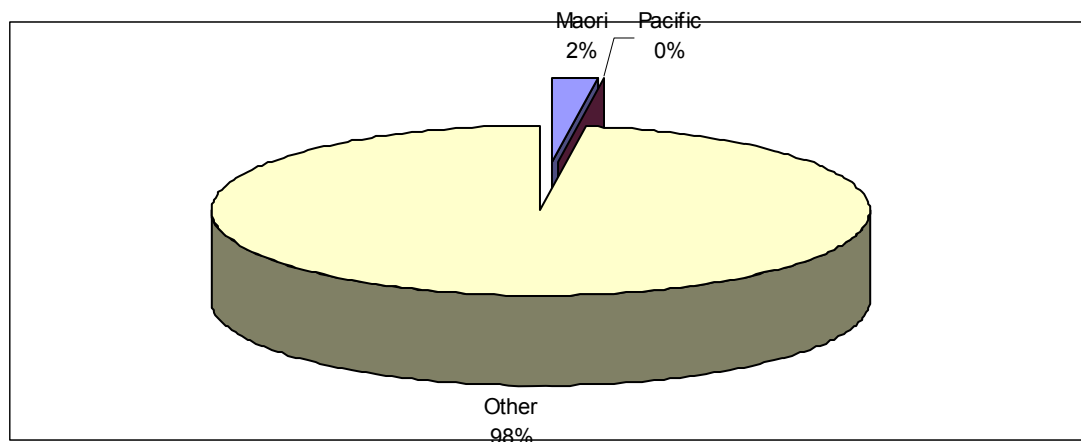
Figure 25: Breast Cancer Mortality by Age Ranges



Quantitatively, the majority of breast cancer mortality occurs in those in the 45-64 age bracket for the Waikato DHB. Thus breast cancer mortality is compressed largely into the middle aged bracket. Although compared to the population proportions at each age range, the mortality rates for the 65-74 and 75-84, and 85+ age groups are comparatively greater than that for the 45-64 age range.

Melanoma

Figure 26: Proportions of Melanoma Mortality by Ethnicity



The “other” population group accounts for the vast majority of the melanoma mortality burden.

Figure 27: Total Number of Melanoma Deaths by Deprivation Quintile

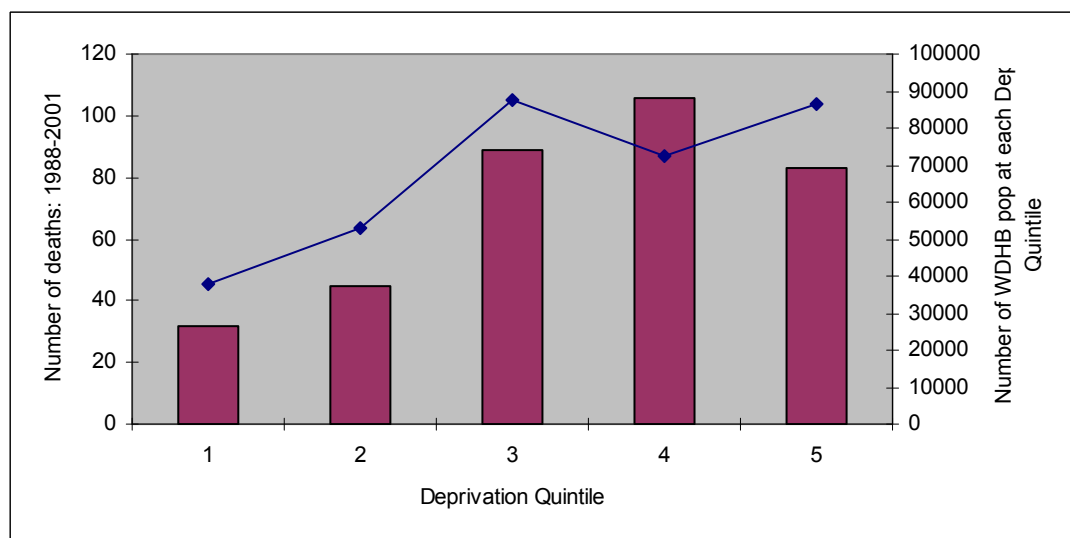
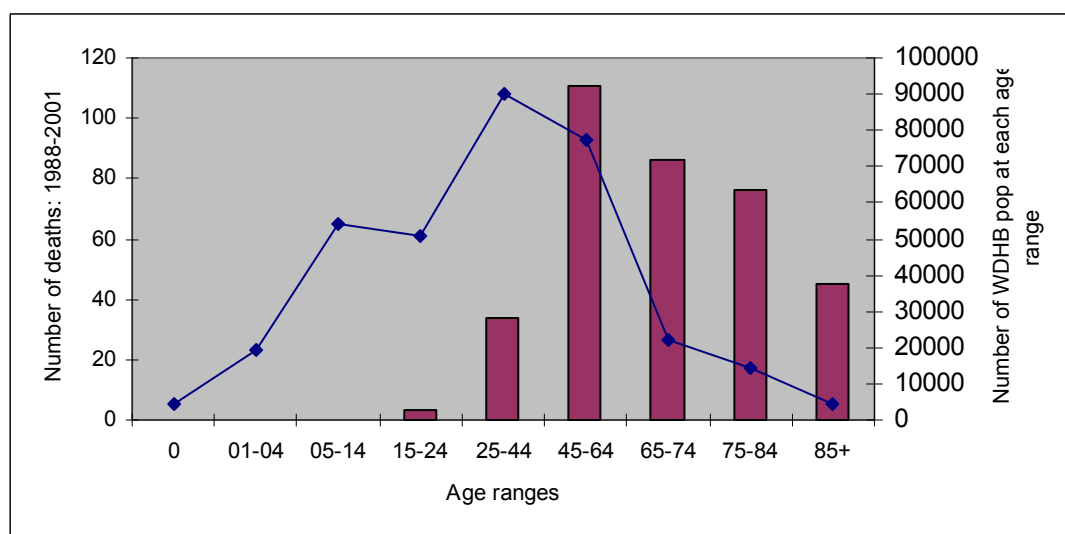


Figure 27 illustrates that deprivation quintile 4 accounts for the majority of the melanoma mortality burden, although quintiles 3 and 5 also have high numbers melanoma deaths.

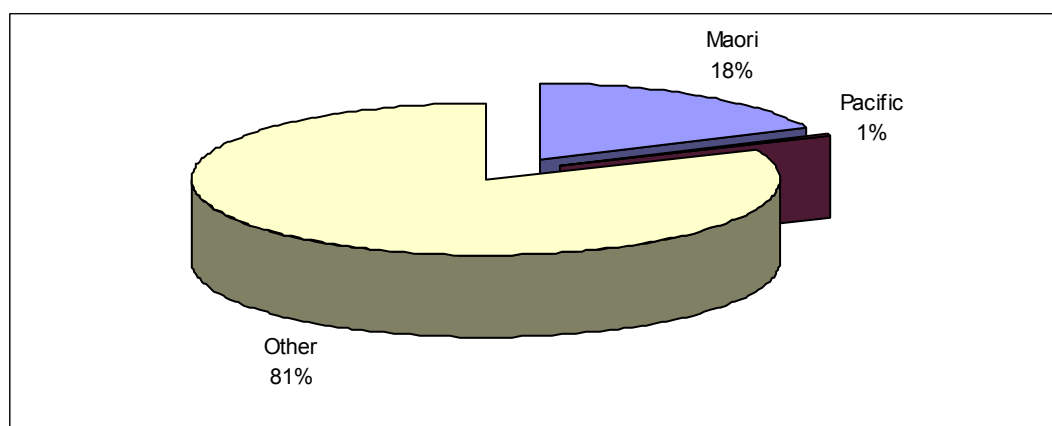
Figure 28: Melanoma Mortality by Age Ranges



Quantitatively, the majority of melanoma mortality occurs in those in the 45-64 age bracket for the Waikato DHB. However mortality in the 65-74, 75-84, and 85+ age groups is significantly greater than the proportions of the Waikato DHB at each of these age ranges (indicated by the blue line).

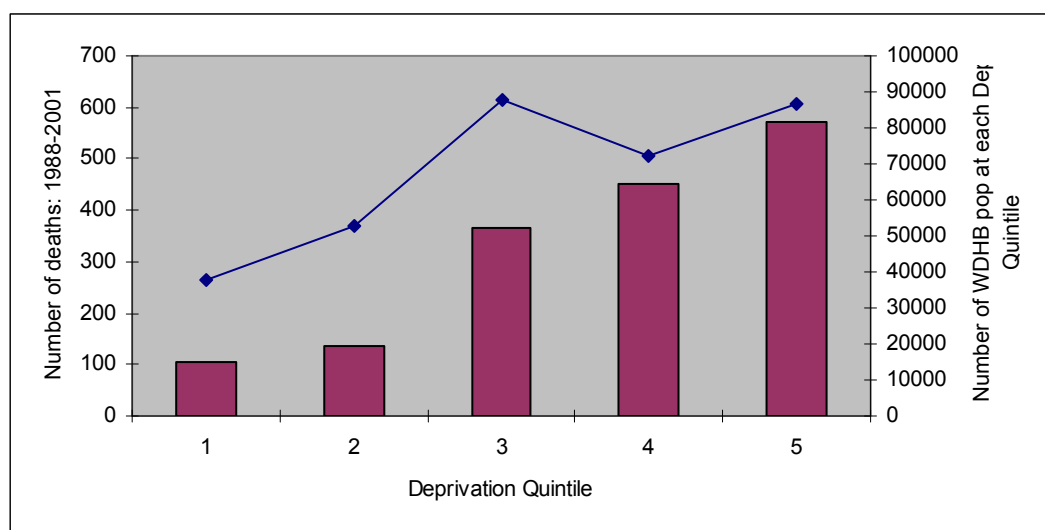
Lung Cancer

Figure 29: Proportions of Lung Cancer Mortality by Ethnicity



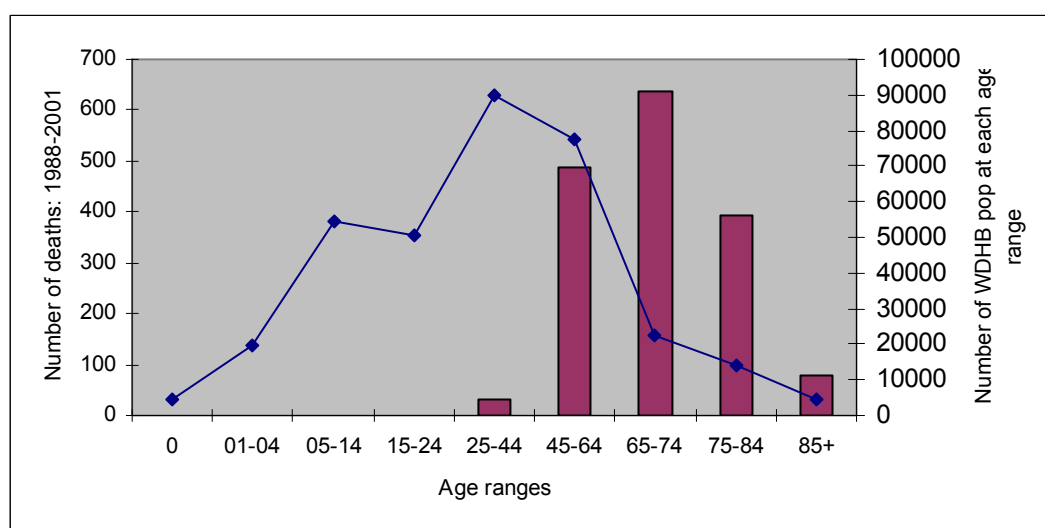
The “other” population group accounts for the majority of the lung cancer mortality burden. Māori make up a higher proportion of lung cancer mortality than many of the other cancers. This is striking because although older age groups contribute the majority of lung cancer mortality, Māori (with a younger population structure) still contribute significantly to total mortality.

Figure 30: Total Number of Lung Cancer Deaths by Deprivation Quintile



Lung Cancer mortality is greatest in the highest deprivation quintile (i.e. 5), and is lower in lower deprivation quintiles.

Figure 31: Lung Cancer Mortality by Age Ranges



The majority of lung cancer mortality occurs in the 65-74 age group bracket, but the lung cancer mortality in the 75-84 age group bracket is considerably above the proportion of the Waikato DHB population in this age range (as is the case for the 65-74 group).

Leukemia and Lymphoma

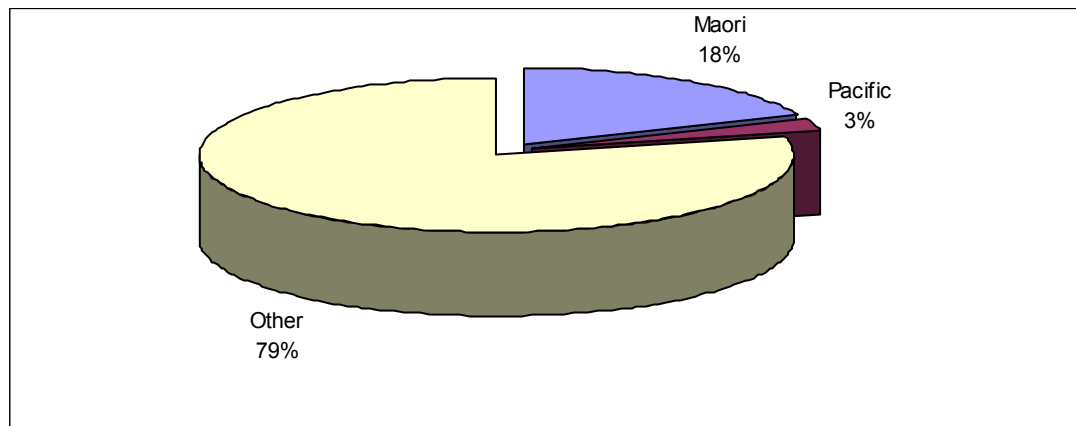
- Mortality data?

Kidney and Bladder

- Mortality data?

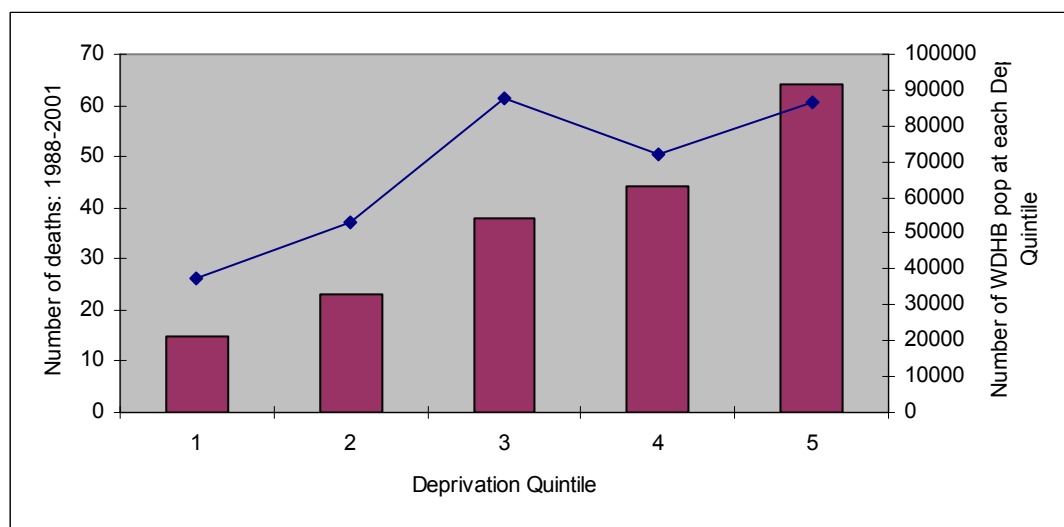
Uterus and Cervix

Figure 32: Proportions of Cervical and Uterine Cancer Mortality by Ethnicity



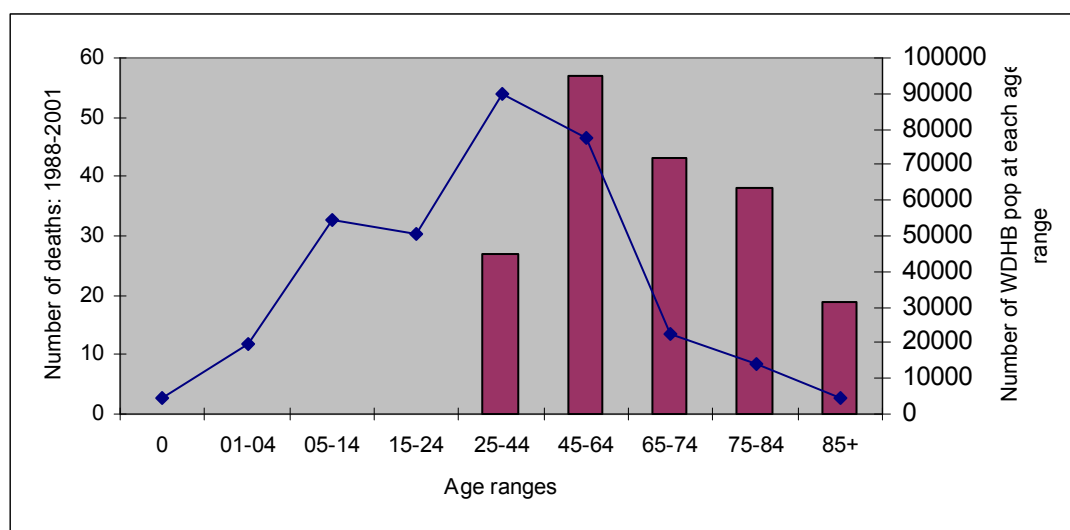
The “other” population group accounts for the majority of the cervical and uterine cancer mortality burden. However, Māori also make a significant contribution to the total number of deaths due to cervical and uterine cancer.

Figure 33: Total Number of Cervical & Uterine Cancer Deaths by Deprivation Quintile



Cervical and uterine cancer mortality is greatest in the highest deprivation quintile (i.e. 5), and is lower in lower deprivation quintiles.

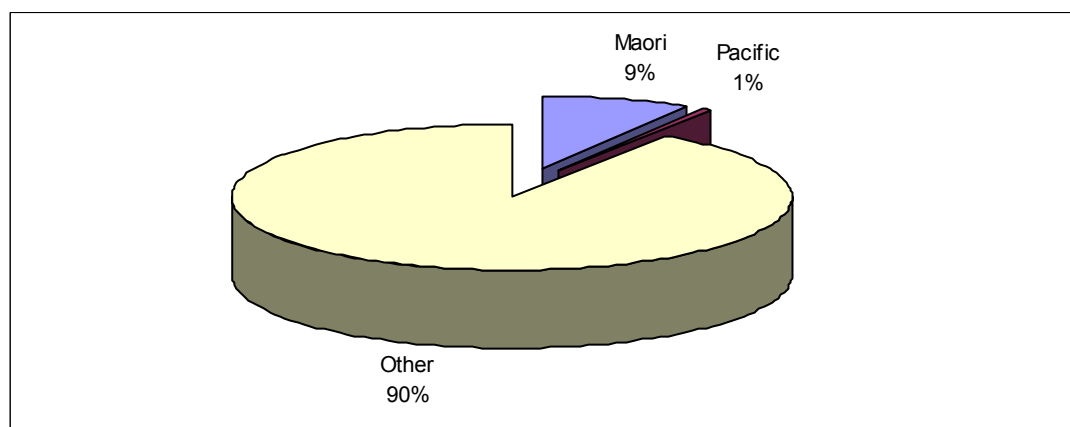
Figure 34: Cervical and Uterine Cancer Mortality by Age Ranges



The majority of cervical and uterine cancer mortality occurs in those in the 45-64 age bracket for the Waikato DHB. However mortality in the 65-74, 75-84, and 85+ age groups are significantly greater than the proportions of the Waikato DHB at each of these age ranges (indicated by the blue line).

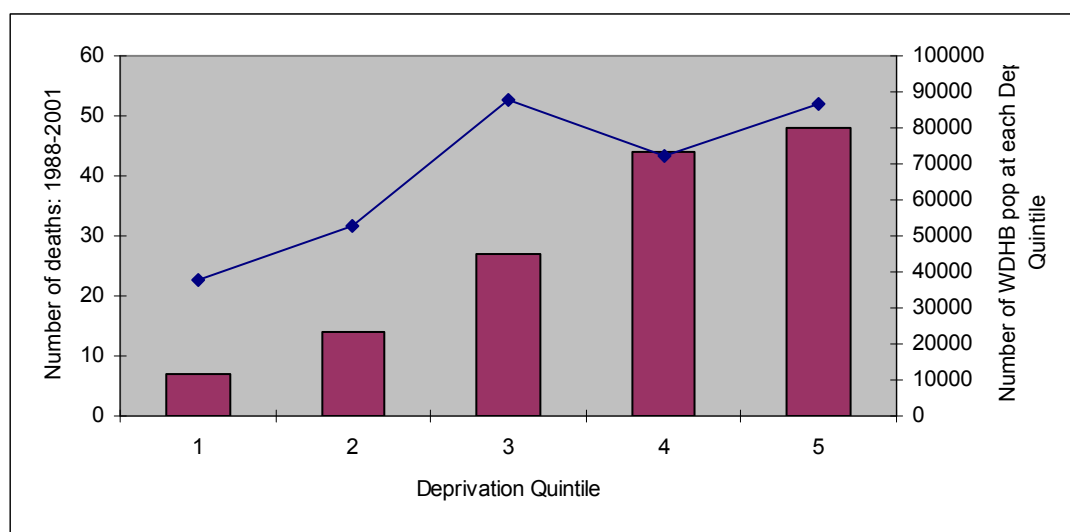
Head and neck

Figure 35: Proportions of Head and Neck Cancer Mortality by Ethnicity



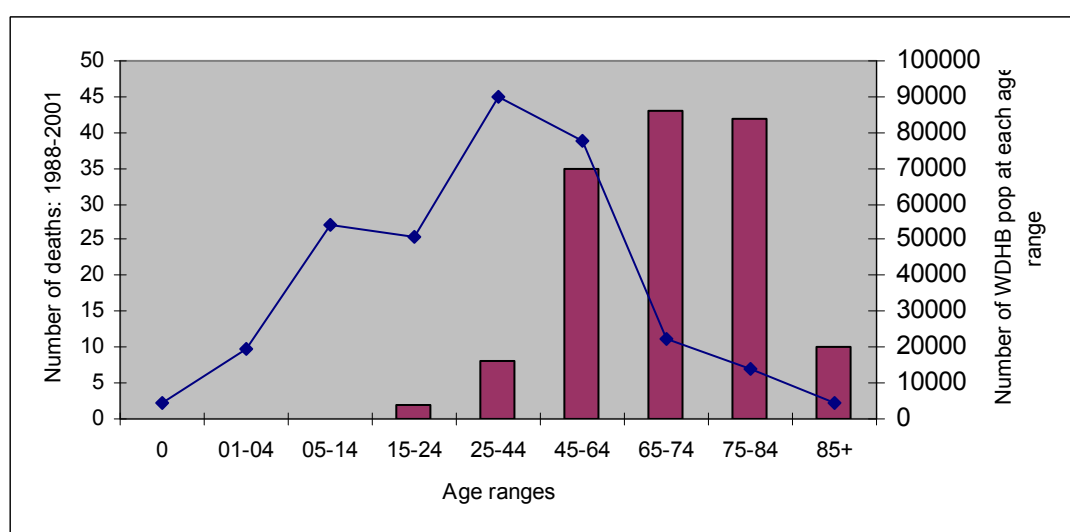
The “other” population group accounts for the majority of the cervical head and neck cancer mortality burden. However Māori make a small but measurable contribution to the total number of deaths due to head and neck cancer.

Figure 36: Total Number of Head and Neck Cancer Deaths by Deprivation Quintile



Head and neck cancer mortality is greatest in the highest deprivation quintile (i.e. 5), and is lower in lower deprivation quintiles.

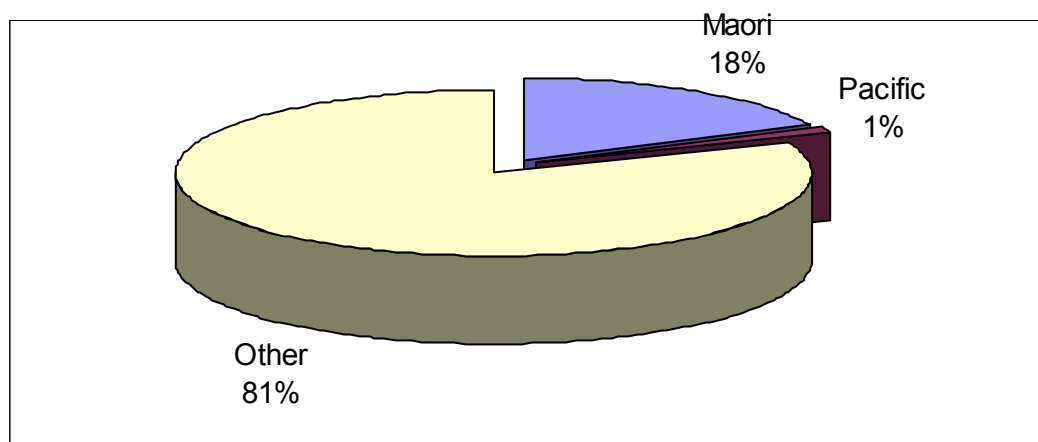
Figure 37: Head and Neck Cancer Mortality by Age Ranges



The majority of head and neck cancer mortality occurs in the 65-74, and 75-84 age groups, indicating that the majority of head and neck cancer mortality is compressed into the elderly age groups. In addition, the mortality rates in the 65-74, 75-84, and 85+ age groups are much in excess of the proportion of the Waikato DHB population at these age groups.

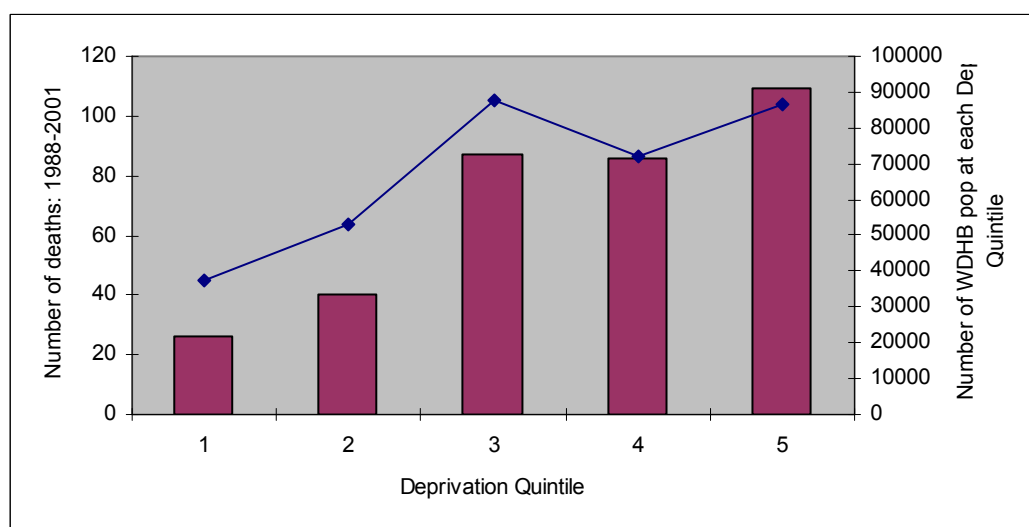
Stomach

Figure 38: Proportions of Stomach Cancer Mortality by Ethnicity



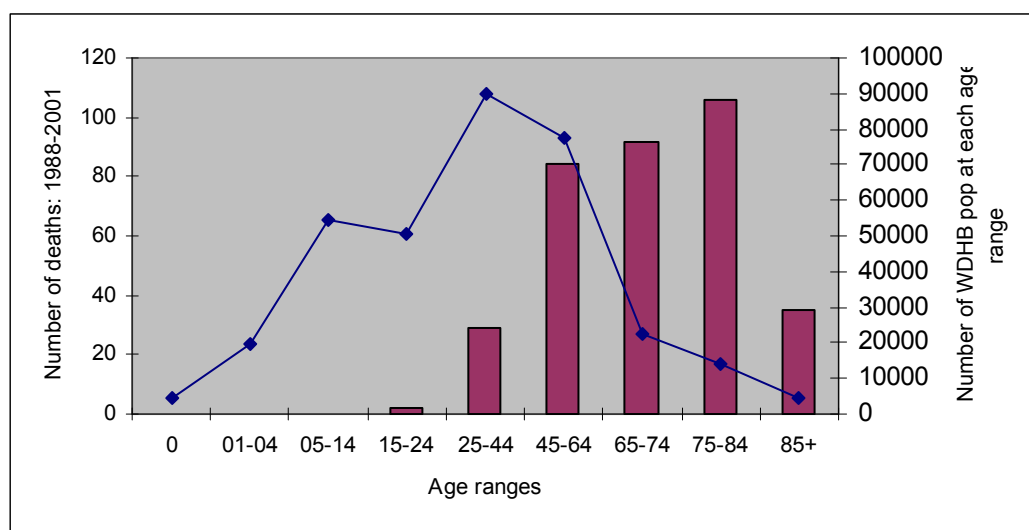
The “other” population group accounts for the majority of the stomach cancer mortality burden. However Māori also make a significant contribution to the total number of deaths due to stomach cancer.

Figure 39: Total Number of Stomach Cancer Deaths by Deprivation Quintile



Stomach cancer mortality is greatest in the highest deprivation quintile (i.e. 5), and mortality is lower in lower deprivation quintiles.

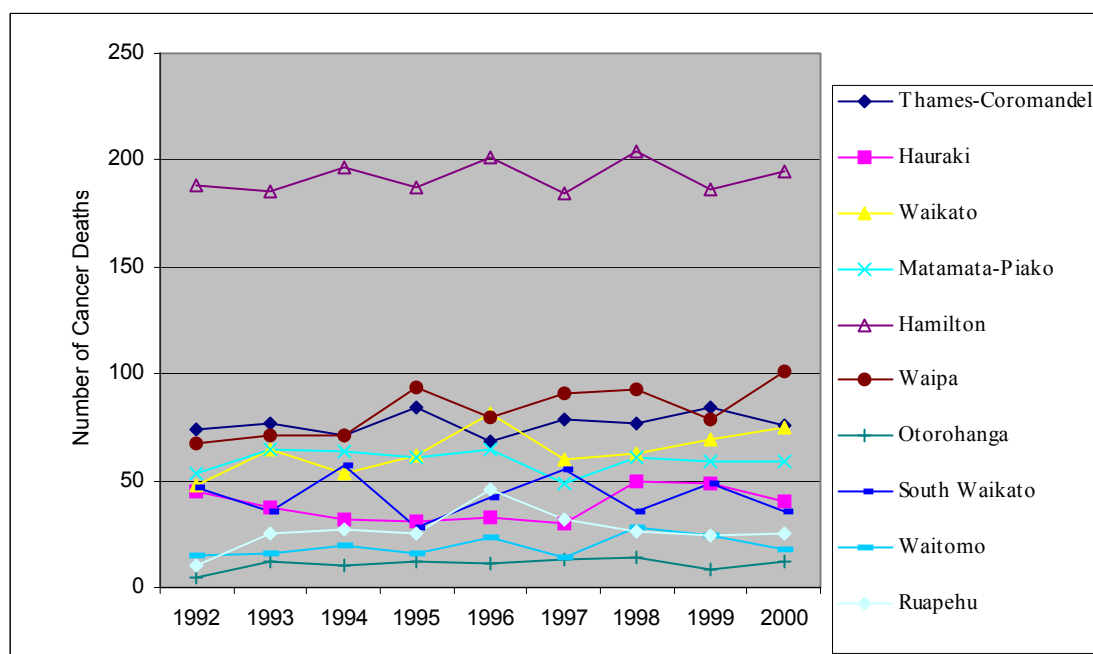
Figure 40: Stomach Cancer Mortality by Age Ranges



The majority of stomach cancer mortality occurs in the 65-74, and 75-84 age groups, indicating that the majority of stomach cancer mortality is compressed into the elderly age groups. In addition, the mortality rates in the 65-74, 75-84, and 85+ age groups are much in excess of the proportion of the Waikato DHB population at these age groups.

Cancer Mortality by TLA

Figure 41: Cancer Mortality by TLA 1992-2000



- Figure 41 shows that from 1992-2000, the number of cancer deaths in the Waikato DHB TLAs stayed relatively constant.

- Quantitatively, Hamilton City TLA had the most cancer deaths over this period, followed by Waipa and Thames-Coromandel TLAs
- Otorohanga TLA had the least cancer deaths over this period.

A Review of Waikato DHB Cancer Mortality

Table 9 below provides an analysis of Waikato DHBs cancer mortality statistics based on the 1994-2000 statistics and compared to the respective national mortality rates. Key findings are:

- Hamilton City TLA has a high mortality rate for head and neck cancer.
- Matamata-Piako, Waipa, Otorohanga, South Waikato, Waitomo, and Ruapehu have low mortality rates for head and neck cancer.
- Waikato DHB has a high mortality rate for melanoma.
- Otorohanga and Waitomo TLAs have low breast cancer mortality rates.
- South Waikato, Waitomo, and Ruapehu TLAs have high lung cancer mortality rates.
- Waikato TLA has a low mortality rate for colorectal cancer for both males and females.
- South Waikato and Ruapehu TLAs have a high lung cancer mortality rate for females.
- Otorohanga TLA has a low mortality rate for non-Maori.

Table 9 TLA legend is as follows:

Hamilton City	5
Thames Cormomandel	22
Hauraki	23
Waikato	24
Matamata-Piako	25
Waipa	26
Otorohanga	27
South Waikato	28
Waitomo	29
Ruapehu	44

Table 9: A Review of Waikato DHB - Atlas of Cancer Mortality in New Zealand 1994-2000

Cancer Group	National Rate per 100,000	Waikato DHB CMR	Waikato DHB Rate per 100,000	DHB/TLA areas of significant difference	National Female Rate per 100,000	Waikato DHB Female Rate per 100,000	National Male Rate per 100,000	Waikato DHB Male Rate per 100,000	DHB/TLA areas of significant difference for Gender	National Māori	Waikato DHB Māori	National Non Māori	Waikato DHB Non Māori	DHB/TLA areas of significant difference for Ethnicity
Bladder	3.2	80-96	2.6-3.1	-	1.7	2.0-2.1	5.3	3.1-5.1	Low Male - DHB & TLA 25					
Brain	4.8	76-93	3.7-4.4	Low TLA 23	3.9	3.0-3.6	5.7	3.6-5.4	Low female TLA 24					
Breast	26.7	99-102	26.2-27.1	Low TLA 27 29										
Cervix	3.5	105-120	3.8-4.2	-										
Colorectal	23.7	106-119	25-28.2	Low TLA 24	20.3	<19	27.9	29.7-33.2	Low both in TLA 24	15.1	16.5-19.4	24.1	23.4-25.2	-
Head & Neck	5.9	94-107	5.6-6.3	High TLA 5, Low TLA's 25, 26, 27, 28, 29, 44	2.9	2.1-2.7	9.4	8.9-10.2	Male - High TLA 5, Low TLA 28, 29, 44	7.5	7.4-8.2	5.8	23.4-25.2	-
Kidney	3.3	93-106	3.2-3.5	-	2.3	2.2-2.4	4.6	4.4-4.9	-					
Leukaemia	5.5	105-119	5.8-6.5	-	4.2	4.4-4.9	7.1	7.8-8.5	-	5.9	5.4-5.6	5.4	>6	-
Liver	2.6	82-111	2.2-2.9	Low TLA 26	1.5	1.5-1.6	3.9	3.4-4.5	-	7.7	8.4-9.7	2.2	1.8-2	-

Cancer Group	National Rate per 100,000	Waikato DHB CMR	Waikato DHB Rate per 100,000	DHB/TLA areas of significant difference	National Female Rate per 100,000	Waikato DHB Female Rate per 100,000	National Male Rate per 100,000	Waikato DHB Male Rate per 100,000	DHB/TLA areas of significant difference for Gender	National Māori	Waikato DHB Māori	National Non Māori	Waikato DHB Non Māori	DHB/TLA areas of significant difference for Ethnicity
Lung	30.2	96-105	28.9-31.9	Low 27. High 28, 29, 44	21.2	20.3-23.6	42.3	40.7-43.2	Female High TLA 28, 44. Male Low TLA 27	78.2	82.6-90.5	27.2	24.8-26.8	Non Māori Low TLA 27
Melanoma	4.9	108-121	5.3-5.9	High DHB.	3.6	3.6-4.2	6.5	7.2-8.1	-					
Myeloma	2.7	109-127	3-3.5	-	2.3	2.5-2.7	3.3	3.7-4.1	-					
Non-Hodgkins Lymphoma	4	87-96	10.4-11.5	High TLA 24	10.1	9.5-10.4	14.4	9-13.6	Female Low TLA 5. Male DHB low	11.5	10.7-12.4	12	10-11.6	-
Oesophageal	4	93-107	4-4.3	-	2.1	2-2.2	6.1	6-6.5	Low male TLA 24	5.1	6.5-8	3.9	3.3-3.7	-
Ovarian	7.3	93-105	6.8-7.6	-										
Pancreatic	6.2	84-97	5.3-6	-	5.5	5.3-5.7	7.2	<6.3	Low Male TLA 28	10	11.2-12.3	6	<5.7	-
Prostate	25.3	104-110	26.2-27.7	-										
Stomach	6	95-106	5.7-6.3	-	4.2	4.5-4.7	8.2	7.7-8.9	-	15.9	14.9-17.3	5.3	4.6-5.1	-
Uterus	5.5	108-122	6-6.7	-										

Regional Cancer Centre

The following is October 2006 reporting to the Ministry of Health of oncology megavoltage radiation waiting times.

Priority A (urgent), Priority B (curative), Priority C (palliative and other radical), Priority D (combined chemotherapy and radiation treatment).

Figure 1: Patient Domicile = Midland Region

Assessment	A. Numbers waiting for first specialist assessment	Priority A	Priority B	Priority C	Priority D	Total
	Assessments completed in current month (number of people)	10	29	90	23	152
	Average wait from referral to assessment (days)	1	8	30	64	29
	Number of people waiting for assessment at month end (people)	0	9	42	26	77

Figure 2: Patient Domicile = Waikato

Assessment	A. Numbers waiting for first specialist assessment	Priority A	Priority B	Priority C	Priority D	Total
	Assessments completed in current month (number of people)	6	14	51	12	83
	Average wait from referral to assessment (days)	1	7	29	56	27
	Number of people waiting for assessment at month end (people)	0	6	22	16	44

Figure 3: Radiotherapy Treatment Wait Times Midland & Waikato

Oct-06						
radiotherapy treatment						
	Priority A	Priority B	Priority C	Priority D	Total	
Treatments started in current month (number of people)						
Waited < 4 weeks	8	12	39	10		69
Waited 4-8 weeks	0	5	15	5		25
Waited 8-12 weeks	0	0	0	0		0
Waited > 12 weeks	0	0	0	0		0
Average wait from assessment to treatment (weeks)	0.03	2.6	3.1	3		2.7
Number of people with completed assessments waiting for treatment at month end (people)	80	20	70	5		175
Patient domicile DHB = Waikato						
radiotherapy treatment						
	Priority A	Priority B	Priority C	Priority D	Total	
Treatments started in current month (number of people)						
Waited < 4 weeks	4	7	23	5		39
Waited 4-8 weeks	0	2	13	2		17
Waited 8-12 weeks	0	0	0	0		0
Waited > 12 weeks	0	0	0	0		0
Average wait from assessment to treatment (weeks)	0.05	2.20	3.61	2.66		3
Number of people with completed assessments waiting for treatment at month end (people)	0	7	34	0		41

Figure 4: Time between Referral and Radiotherapy Midland & Waikato

C. Time between receipt of referral and the start of radiotherapy treatment		Oct-06				
		A	B	C	D	Total
Treatments started in current month (people)	Waited < 4 weeks	4	7	15	0	26
	Waited 4-8 weeks	0	6	2	1	9
	Waited 8-12 weeks	0	0	11	3	14
	Waited >12 weeks	0	0	19	11	30
	Total	4	13	47	14	78
Average wait from referral to treatment (weeks)		0.3	3.89	9.49	16.16	9.37

WAIKATO		Oct-06				
C. Time between receipt of referral and the start of radiotherapy treatment		A	B	C	D	Total
Treatments started in current month (people)	Waited < 4 weeks	3	5	5	0	13
	Waited 4-8 weeks	0	4	1	0	5
	Waited 8-12 weeks	0	0	10	0	10
	Waited >12 weeks	0	0	13	6	19
	Total	3	9	29	6	47
Average wait from referral to treatment (weeks)		0.33	3.6	11.16	17.57	9.64

Waikato Review of NZCCS Goals and Phase 1 Priorities

Cancer control across the continuum is significant and complex. The Waikato Cancer Control Services Review and Analysis report (draft, 2006) is a work in progress. The Waikato stocktake and gap analysis is also a work in progress and will be built on as the Midland Cancer Network is established.

The review and analysis report outlines:

- The Waikato DHB cancer control services (summarised in section two)
- An overview of the burden of cancer within the Waikato DHB
- Analysis of Waikato's progress against NZCCS Action Plan phase one priorities (table 1)
- Waikato DHB has made significant contribution to advancing the NZCCS Action Plan and HEHA recommendations. Analysis of Waikato progress to date against each NZCCS goal highlights the key focus areas for action (diagram 2).

Table 10 summarises the review of various Waikato DHB plans, services and activities against the NZCCS Action Plan phase one priorities. Table 1 analysis indicates that many of the NZCCS Action Plan phase one priorities are national only projects in progress; guidance for children, adolescents and adults; pilot survivorship programmes for children and adolescents; data; research. An identified gap is a component of the phase one priority to provide support for Māori-led cancer services where possible; Waikato DHB does not have any Māori-led cancer services.

Table 10: Waikato DHB Analysis against the NZCCS Action Plan Phase One Priorities

Phase 1 Priorities	National Priority Projects	Regional / DHB Focus	Cancer Network Plan	Patient Mapping Project	HEHA Initiatives	Breast Screen Midland	Non-Surgical Cancer Treatment Plans	Waikato Palliative Care Strategy Plan
Establish regional cancer networks	✓	Reg	✓	✓	✓	✓	✓	✓
Expand smoking cessation services & programmes for Māori women		DHB						
Implement Healthy Eating Healthy Action	✓	DHB			✓			
Strategies to improve coverage by BreastScreen Aotearoa in areas where the need has been identified	✓	Reg				✓		
Ensure timely & acceptable access to cancer services by establishing standards	✓	Reg		✓		✓	✓	
Establish multidisciplinary care for cancer patients		Reg		✓		✓	✓	✓
Pilot studies to map and analyse cancer patients' journey & clinical pathway		Reg	✓	✓				
Establish groups to develop guidance for children, adolescents & adults	✓							
Implement & evaluate pilot survivorship programmes for children & adolescents	✓							
Implement NZ Palliative Care Strategy	✓	DHB						✓
Develop workforce plan for cancer control, ensuring consideration of cancer workforce shortage for Māori & Pacific Peoples	✓	Reg	✓	✓	✓	✓	✓	✓
Plan for capital expenditure on cancer control, including equipment, drugs and new initiatives		Reg					✓	

Phase 1 Priorities	National Priority Projects	Regional / DHB Focus	Cancer Network Plan	Patient Mapping Project	HEHA Initiatives	Breast Screen Midland	Non- Surgical Cancer Treatment Plans	Waikato Palliative Care Strategy Plan
Apply the Heat Equity Assessment Tool to policy and funding decisions		✓	✓				✓	✓
Support Māori-led cancer services where possible & ensure mainstream cancer services have a cultural framework for Māori that aligns with He Korowai Oranga								
Develop 5 yr rolling plan for research relating to cancer control	✓	DHB					✓	
Develop a nationalised, standardised clinical cancer data set	✓		✓				✓	✓

Midland Region Collaboration and Developments

The Midland Region covers the Bay of Plenty, Lakes, Waikato, Tairāwhiti and Taranaki DHBs. The Midland DHBs have been active in progressing cancer control. Progress includes:

- The framework of the Midland Region Cancer Network (Hewitt, 2006) has been endorsed by the Midland DHB CEOs (September, 2006)
- The Midland Region Non-Surgical Cancer Treatment Operations Network has been established since December 2005
- The endorsement of the Midland Region Non-Surgical Cancer Treatment Service Progress Report 2005; Implementation Plan 2005 – 2010 (Midland DHBs, 2005)
- Midland Region Patient Mapping (Scanlan L & Hewitt J, 2006).

These plans outline Midland region cancer control priorities.

Midland and local initiatives are briefly discussed with an emphasis on the NZCCS Action Plan goals and phase one priorities.

Establish regional cancer networks

The Ministry of Health indicated that the establishment of regional cancer networks is a phase one priority of the Action Plan. In September 2006 the Midland CEOs endorsed the Midland Region Cancer Network Report (Hewitt, 2006) and the report was submitted to the Ministry of Health. The Waikato DHB Board endorsed the framework report in November 2006.

The Midland Cancer Network will include the Bay of Plenty, Lakes and Waikato DHBs and an open invitation to Tairāwhiti and Taranaki DHBs. The longstanding geographical issues Tairāwhiti and Taranaki DHBs have with linking into the Midland group for cancer control due to treatment flow of patients, and where networks overlap, have been noted and will be worked through over time (including patients that go outside the Midland region).

The Midland Cancer Network will take a proactive leadership approach to ensure all providers of cancer care in the Midland region work together with the community to:

- Manage the implementation of the New Zealand Cancer Control Strategy (Ministry of Health, 2003b) and the associated Action Plan (. Ministry of Health, 2005) and
- To improve the journey of cancer patients and their family/whānau through the complex pathway of care, ensuring equitable, high quality, patient-centred, evidence-based and multidisciplinary care.

A key strategic initiative has been the appointment of the Regional Clinical Director Cancer Control for the Bay of Plenty, Lakes and Waikato DHBs, and latterly the Network Manager.

The report provides direction for the Midland Cancer Network for the first year. There are several priorities recommended in addition to the establishment of the Network.

- Development of a Midland Cancer Control Action Plan that aligns all Midland DHBs priorities in relation to Cancer Control.
- Continuation of the patient mapping of the tumour groups is critical to build knowledge and improve the patient journey (commence ovarian and high risk genetic assessment and haematological conditions).
- Hold patient mapping workshops for breast and lung and develop action plans as required.
- Develop a Midland Gynae-Oncology model of care and plan 2007-2010 (this is to align with the Northern DHBs gynae-oncology project).
- Develop a genetic high risk assessment model of care for the Midland region (refer to the MRNSCT Implementation Plan).
- Continue with the implementation of the Midland Non-Surgical Cancer Treatment Services Plan.
- Participate in national activities related to cancer control.

The Midland DHBs are looking to the Ministry of Health to formally engage and agree on the method to provide sustainable funding for the Midland Region Cancer Network. The Midland Cancer Network if adequately resourced and supported, will have the capacity and capability to deliver against its core purpose and objectives.

Midland Region Non-Surgical Cancer Treatment Service Network

The Midland DHB CEO group has determined that the Non-Surgical Cancer Treatment Plan for the Midland Region (Barber, 2004) (NSCT Plan) would form the framework for development of oncology services for the Midland region. The NSCT Plan outlined a number of regional initiatives to support the Midland DHBs, which included establishment of clinical staff such as a regional clinical director, regional oncology liaison nurse, care co-ordinators for major tumour groups and co-ordinators to support the multi disciplinary/service meetings. In addition, the Plan recommended the establishment of a regional cancer control group (ie. network).

In December 2004 the Midland Region Non-Surgical Cancer Treatment Implementation Project was established to scope requirements and implications, and to focus on activities related to operational planning and implementation. In December 2005 the Midland Region Non-Surgical Cancer Treatment Service Progress Report 2005; Implementation Plan 2005 – 2010 (Implementation Plan) was endorsed and also establishment of the Midland Region Non-Surgical Cancer Treatment Operations Network (MRNSCT Operations Network). During the

development of the Implementation Plan a stocktake of services and providers across the Midland region was completed, including development of a role delineation model.

The Midland CEOs have directed that all regional plans are subject to the prioritisation process and each is seen as part of a 10-20 year strategy for health gain. Due to the extent and resource implications of the recommendations, it is required that a phased and prioritised approach be taken to the implementation of the regional NSCT Plan.

The purpose of the MRNSCT Operations Network is to take a proactive leadership approach to the Implementation Plan's recommendations and to ensure that well-informed decisions are made to achieve successful outcomes.

The MRNSCT actions have been incorporated into the Waikato DHB Cancer Control Action Plan.

Expand Smoking Cessation Services & programmes for Māori Women

Waikato PHO through a quality plan promotes smoking coding within general practice. General practice provides support for training staff to provide smoking cessation services and practice based smoking cessation clinics. There is support for Māori providers providing smoking cessation services to youth in high schools.

The Population Health Service is involved in monitoring compliance of licensed premises according to the Smokefree Environments Amendment Act 2003. In February 2006, Waikato DHB launched the full implementation of its Smokefree policy on hospital grounds and satellite locations. This marked a major step in the graduated process of implementation, ongoing since 2002. The Smokefree Steering Committee was born of concerns over the success of the policy for Waikato DHB. This group commenced in June 2006 and is chaired by the Manager of Population Health Services. The group's membership reflects key clinical areas of the DHB and also its operational infrastructure. The complex task of addressing Smokefree for Waikato DHB required a staged approach.

The Steering Group identified different issues for each of the three client groups (patients, staff and visitors) and resolved to address each of these group issues,

- Patient issues addressed through use of data collection pre-admission where available, staff intervention initiatives and cessation support
- Staff are mostly supportive of the policy as a recent survey confirmed. Compliance is shown to be high with regard to the choice of location for smoking breaks (ie. off campus).
- Visitors pose the biggest (and arguably the most visible) obstacle to fully implementing Smokefree status, as weekly security reports confirm.

The committee has made progress and achieved some key tasks for each client group. Other activities include supporting the implementation and maintenance of smokefree policy and environments in schools and pre-schools and reducing the promotion of tobacco products and supply to under 18 year olds. This involves the provision of

retailer education as resources allow and increasing community awareness regarding sale and supply of tobacco to minors.

Health Promotion activities are predominantly focused upon working collaboratively with Māori, Pacific communities and agencies. These include continuation of Rangatahi Auahi Kore Promotion Project (RAPP), strengthening and working on collaboration with Māori communities to promote resiliency among whānau, hapu and Iwi regarding wellbeing and smokefree choices; the promotion of smokefree healthy lifestyles within Pacific communities; and public health input into smokefree coalitions across the Waikato region.

The relationships with national, regional and local agencies continue. These include the National Auahi Kore Advisory Group, and the Midland Smokefree Advisory Group.

One of the key messages of the Fruit in Schools programme (further discussed under HEHA) funded within decile 1 schools in the region is that relating to promotion of smokefree education and messages.

Implement Healthy Eating – Healthy Action (HEHA)

Healthy Eating – Healthy Action: Oranga Kai – Oranga Pumau (Ministry of Health, 2003a) is an integrated policy framework to bring about changes in the environment as this relates to nutrition, physical activity and obesity. HEHA Implementation Plan 2004-2010 (Ministry of Health, 2004) has a range of actions at different levels and different sectors. A multifaceted intersectoral approach is necessary, as no one action or group of actions provides the answer to the complex issues related to nutrition, physical activity and obesity. Priority groups target children and their family, Māori, Pacific people and lower socio-economic groups.

Key messages include:

- eating a variety of nutritious foods
- eat less fatty, salty and sugary foods
- eat more vegetables and fruit
- full breast feed infants for at least six months
- be active every day for at least 30 minutes
- add some vigorous exercise for extra benefit and fitness
- aim to maintain a healthy weight throughout life
- promote and foster the development of environments that support a healthy lifestyle.

“Mission On”

The Ministry of Health (May 2006) announced \$67m over four years to “fight the obesity epidemic”. More than 50% of New Zealanders are either overweight or obese and more than 30% of NZ children can be classified the same.

“Mission on” is a broad based package of initiatives aimed at New Zealand children, young people and their families, providing the tools to improve their nutrition and increase physical activity. The package is aimed at children and young people from birth to 24 years. The announcement of the national “Mission on” programme, provides clarity to the HEHA Steering Group about the Ministry of Health’s preferred directions for HEHA.

“Mission on” builds on the existing cross-government programmes within schools, early childhood education services, and communities around NZ. These include Push Play, Active Schools, Fruit in Schools, Active Movement (in early childhood), and Active Communities.

From October 2006 the Ministry of Health will purchase two HEHA services, these are leadership and co-ordination and the nutrition fund. This allows Waikato DHB to increase and build on existing HEHA activities. DHBs have been allocated \$136,190 (gst exclusive) per annum for project management functions to support leadership and co-ordination at a district level.

The nutrition fund provides DHBs with the opportunity to make grant allocations to schools and early childhood centres that support the implementation of the new Ministry of Education Food and Nutrition guidelines.

Fruit in Schools (FIS), an innovative programme funded through the Cancer Control Action Plan, has improved and initiated intersectoral collaboration. The programme targets high need communities based on NZ deprivation index and school decile ratings. Schools that sign up to the programme must make progress in the Health Promoting Schools programme which is a whole of school approach to creating environments that support healthy eating, physical activity, being sun smart and smokefree.

Waikato has 29 decile 1 schools receiving one piece of fruit per child per day as well as other support, such as teacher release.

The roll out of phase three of FIS means that all decile 1 schools and all DHBs will have the FIS programme.

Waikato HEHA Strategy Implementation

Waikato has established an Intersectoral Steering Group to align activities with the HEHA strategic framework for the Waikato district.

The HEHA Steering Group was established in late 2005 and is mandated by Intersect Waikato. The steering group operates within the Waikato DHB geographical boundary with current Government and non-Government health organisations and the Ministry of Social Development, Ministry of Education, Te Puni Kokiri, Housing NZ, Primary Health Organisations, Sport Waikato, National Heart Foundation and Iwi Māori Trusts.

The purpose and objectives of the Steering Group are as follows and are included in the Terms of Reference:

Purpose:

- Provide a strategic overview of Healthy Eating – Healthy Action activities in the

Waikato DHB Area

Objectives:

- To provide guidance and direction when implementing the national strategy in Waikato DHB district
- To influence decision-makers at a local, regional and national level
- To strategically support operational activities
- Achieve effective outcomes and reduce inequalities in relation to HEHA
- To ensure consultation is carried out and linkages are maintained as required to enable the implementation of the Implementation Plan

Subsequently, two sub groups have been established with a focus on schools and communities with appropriate membership from steering group members. These sub-groups tend to focus on strategic thinking to inform specific programme activity.

Intersectoral Achievements against HEHA objectives

The steering group has identified some issues that will require clarity and direction regarding the following:

- future of Waikato DHB Steering Group, its composition and leadership
- HEHA project management
- funding & reporting lines
- reducing inequalities – requires Māori and Pacific perspective

Future of the Waikato DHB Steering Group, its composition and leadership

Mission On provides the steering group with the opportunity to develop strong leadership and co-ordination that will enable the identification of collaborative opportunities to achieve better outcomes and reduce inequalities. The current steering group, although mandated through CPHAC and Intersect Waikato, does not have the higher CEO level influence that it requires – therefore there is a need for a champion. The attached table outlines some of the options for addressing this need and the advantages and disadvantages they present. Clarity around the role of the champion is required and may be influenced by the need to engage with other CEOs within the Intersect Waikato Forum.

HEHA Project Management

Funding through the Crown Funding Agreement (CFA) has been made available to each DHB to achieve inter-agency leadership and collaboration at a district level. DHBs are being asked to create and lead intersectoral district HEHA co-ordination groups that will have a responsibility for planning, prioritising, funding and

monitoring HEHA initiatives in their districts. There is an expectation that DHBs will recruit and appoint a HEHA Project Manager to co-ordinate planning, preparation and implementation.

Some of the initial tasks have been achieved within Waikato DHB by the Portfolio Manager, Public Health – a position funded by the Ministry of Health, Public Health Directorate. The establishment of this position will enhance further development of the strategy. Clarity regarding roles and tasks in relation to these two positions can be developed to achieve maximum outcomes.

Funding & Reporting lines

This process will be further developed as funding streams and intentions become known. This will align with other related funding, such as Fruit in Schools and Health Promoting Schools (at a further date).

Reducing inequalities – requires Māori and Pacific perspective

Waikato DHB has four population priorities outlined in the District Strategic Plan. They are low socio-economic, Māori, Pacific people, and older persons. Representation from these areas will be required through the composition of the steering group from a strategic perspective, but should also be reflected within the service provision that eventuates from “Mission On” opportunities.

Actions Required

- identify HEHA champion
- recruit project management function to support DHBs leadership and co-ordination at a district level
- develop Waikato approach to HEHA Implementation Plan
- develop communications plan.

Waikato Intersectoral achievements against HEHA objectives

The following are practical success stories that relate to HEHA objectives and demonstrate intersectoral collaboration in the Waikato district.

Note: The following activities are collated from members of the HEHA Steering Group only and do not represent all of the activities for the Waikato DHB district. This provides an informal picture of the current status. The HEHA Project Manager will facilitate further work regarding a stocktake of activities.

1) Build healthy public policy

Population Health Service

HEHA Steering group and PANINI participation

Increase information about possible regulatory and policy options for nutrition and physical activity in after school and holiday programmes

Promoting breastfeeding, particularly amongst Māori and Pacific people within Baby

<p>Friendly Hospitals Initiative (BFHI) and Breastfeeding Advocacy Coalition Kirikiriroa (BACK) Support nutrition and physical activity healthy public policy.</p> <p>Waikato Primary Health (PHO)</p> <p>Health@Work : Funded to improve the health and well being of employees in their workplace. Aimed at workplaces that employ higher numbers of low socio-economic staff, Māori & Pacific staff, or whose working environment is sedentary (i.e. call centres). The project aims to work with human resources or health & safety managers to address the health options available at work. For example, changes to catering menus in the workbased canteen, changing the contents of vending machines, offering weight management classes during the lunchtime, organising lunch time walks or offering smoking cessation at the work place. This is funded by the Waikato PHO Health Promotion budget.</p>
<p>2) Create supportive environments</p> <p>Population Health Service</p> <p>Alliances between health agencies and Territorial Authorities to inform and influence district planning</p> <p>Sport Waikato</p> <p>Provision, promotion and marketing of Sport Waikato programmes. Programmes target schools/preschools, older people, Māori, and the workplace.</p> <p>Te Korowai Hauora o Hauraki (PHO)</p> <p>Generally support healthy food options in all of their programmes, especially for youth.</p>
<p>3) Strengthen community action</p> <p>Population Health Service</p> <p>Recycled sports equipment made available School/preschool based oral health programmes</p> <p>Sport Waikato</p> <p>Promote and facilitate sport and physical activity opportunities to the community such as Under 5s, Primary Schools, SportFit (Secondary Schools) SportsForce, Club Development, Active Lifestyles (including Green Prescription), Upright and Active, Project Energise, Active Schools, School Community Physical Activity Project (working with education) and community provision of programmes.</p> <p>Waikato PHO</p> <p>Te Mauri Tau: Funded to deliver culturally appropriate nutrition and holistic health messages in Whaiangaroa and at Raglan area school. In total over 50 people have attended nutrition training and have benefited from the input. This has been funded through the Waikato PHO Health Promotion budget.</p>

4) Develop personal skills

The Ministry of Social Development will be working collaboratively with Sport Waikato and Hamilton City Council to support low-income families to make healthy lifestyle choices.

Population Health Service

Increase knowledge of whānau/families and communities regarding sugary drinks.
Kaumātua and Kuia nutrition and physical activity programmes
School-based healthy heart awards
KIDZ BITZ newsletter

Sport Waikato

Deliver education sessions in school settings and for parents/care-givers

Ngā Miro Health

Te Wai o Rona – Diabetes Prevention Strategy

Fte: 1.5

Funder: Waikato DHB

Te Wai o Rona is a strategy aimed at preventing diabetes in the Māori population by providing one to one coaching for Māori adults to enable them to have a balanced diet and include regular physical activity in their daily lives.

Project Energise – Waikato Healthy Eating Healthy Living Programme

Fte: 1

Funder: Waikato DHB

Project Energise is a programme that is an evidence based approach to improving the nutrition and levels of physical activity of Waikato children in selected schools.

Whakapukaha Kaumātua – Kaumātua Kuia Support Service

Fte: 1

Funder: Waikato DHB

Whakapukaha Kaumātua is an early intervention service for Māori elderly. A key component of the service is a day activity programme which offers opportunity for kaumātua and kuia to interact socially as well as participate in therapeutic activities. Included in every session are low impact exercises and tai chi.

Health Promotion – Physical Activity and Nutrition

Fte: 0.3

Funder: Ministry of Health

Planned projects for this year include organising an inter primary school triathlon for Ngaruawahia schools and developing and delivering a nutrition course for caterers from North Waikato marae.

5) Reorient the health sector

The Ministry of Social Development are working collaboratively with the Waikato PHO and a local Oral Health Provider to support people in high need populations who are hindered by poor oral health to develop their confidence. This project is a cost effective service delivery model that will achieve better oral health outcomes, through prevention and intervention to support low income families to make better lifestyle choices.

Population Health Service

Nutrition advice to Sport Waikato

6) Monitor, research and evaluate

Waikato Primary Health

Nutrition in High Schools evaluation: funded to scope the current situation within high schools and propose scope for future projects and initiatives. Funded by Waikato PHO Health Promotion budget.

7) Communication

Sport Waikato

Provision, promotion and marketing of Sport Waikato programmes through the media

Population Health Service

Increase media advertising and promotion of nutrition and physical activity in national campaigns.

8) Workforce

Waikato Primary Health

Health Promotion Scholarships: Funded to support people to complete a certificate in Health Promotion from the University of Otago. Historically this was just for primary health care staff, however this has been extended and offered to the wider public sector to enhance collaborative working and increase health promotion capacity within other non-health sectors. Funded by Waikato PHO Health Promotion budget.

Te Hotu Manawa Māori: Funded to deliver nutrition and physical activity sessions to people already working within the Māori community. Part of the course also required participants to submit three-year action plans to the Health Promotion Coordinator (PHO) on how they were going to utilise their new skills in their community. Thirteen people attended the training course and to date five action plans have been received by the PHO. This was funded by Waikato PHO Health Promotion budget.

Initial analysis of the activities identify Waikato DHB has gaps in:

- monitor, research and evaluate
- communication
- workforce.

Implement strategies to improve coverage of BreastScreen Aotearoa in areas where the need for increased coverage has been identified

Waikato Primary Health through the quality plan promotes the maintenance of good health at a population and personal health level. This includes working to improve the number of women with current cervical screening result and promoting the update of breast screening.

In New Zealand and the Waikato,¹² breast cancer is the most common cancer among females. Breast cancer makes up just over a quarter of new cancers diagnosed in women, and almost one in five cancer deaths. The incidence is predicted to account for 28% of all female registrations by 2011. The mortality rate, however, is projected

¹² An Indication of New Zealanders' Health 2004, Ministry of Health

to continue to decline. Māori registration rates are slightly higher than non-Māori, with a considerably higher mortality rate;

During the 1981–2000 period breast cancer registration rates have gradually increased. Overall, breast cancer mortality has decreased slightly since the 1980s. While there have been decreases in Other rates of breast cancer during the late 1980s and 1990s, Māori and Pacific rates increased in the 1990s. Breast cancer registrations are forecast to increase further over the next decade (as a result of the screening programme), whereas mortality is projected to continue to decline. Māori women have a higher registration and mortality rate of breast cancer compared to Other ethnicities.

Breast cancer registrations and mortality do not show a consistent relationship with NZDep2001.

BreastScreen Midland Service

The national breast-screening programme started in 1998, having been piloted in Waikato (and Otago) since the early 1990s. The programme initially offered free breast-screening mammography and follow-up to all women aged 50–64 years of age, though since July 2004 it has been extended to women aged 45–69.

Breast Screen Midland is one of seven lead providers funded by Breast Screen Aotearoa of the NSU to provide a comprehensive service across Waikato Bay of Plenty and Lakes DHBs. The service offers eligible¹³ women aged 45 to 69 years a free mammogram (breast x-ray) every two years. The well woman service encompasses health promotion, recruitment, a call centre and mammography. Women can have a mammogram either at the Breast Care Centre at Waikato Hospital or on one of its two mobile units. A third mobile unit will be in commission in early 2007. Each town within the Waikato is visited by a mobile unit every two years and further emphasis will be placed on providing a mobile service around Hamilton City, particularly in areas that will promote the service to Maori wahine, Pacific women and women living in low socio-economic areas.

The standard is about 7% women attending the service for the first time and 4% of the women attending subsequently will require further assessment (for example an ultrasound or core biopsy).

There is a multidisciplinary team meeting held every Wednesday to discuss the diagnosis and plan of treatment for all women where there is a suspicion or diagnosis of cancer to optimise positive outcomes for every woman who enters the service.

Since the age extension (from ages 50–65 to 45–69) in July 2004 the service has significantly grown and now identifies about double the number of women with breast cancer.

Goal - More than 70% of eligible women aged 45 to 69 receive a mammogram every two years.

Outcomes - Between July 2004 and June 2006, there were approximately 88,650 women eligible for the programme in Waikato DHB and 49,740 (56.1%) of eligible women received a mammogram through BSM. There continues to be a focus on

¹³ Women aged 45–69 must be asymptomatic and should not have had a mammogram via another source (eg private) within previous 12 months

encouraging Māori and Pacific Island women into the service. During this time 4,712 or 9.5% of the participants identified as Māori, compared with the 14% eligible Māori population. There were 363 or 0.7% participants who identified as Pacific Islanders out of the 1.34% eligible population. There is an unknown number of additional women who have received a mammogram privately in this time.

In 2005-06 there were 90 women diagnosed with cancer through the BSM programme in Waikato DHB. In addition, there were a further 591 Waikato women who underwent further assessment after the initial mammogram.

Ensure effective cervical screening and early detection to reduce cancer incidence and mortality

The cervical cancer incidence and mortality have been falling and this trend is predicted to continue. Māori females are twice as likely to be diagnosed with cervical cancer as non-Māori females, with a mortality rate four times higher. About 15 women a year continue to be diagnosed with cervical cancer across the Waikato.

Midland Cervical Screening Service

The National Cervical Screening Programme is funded by the NSU for every woman between aged 20 and 69 years to have a cervical smear every three years. A health promotion service is funded by the NSU and encourages women to participate in the programme, particularly those women who are less likely to access the service. The smear taking service is usually provided within primary care (GPs, practice nurses and family planning service). Smears are also taken as part of a complete check within the Waikato Hospital Sexual Health Service. There is usually a cost associated with having a cervical smear but this is likely to reduce as fees to access a GP or practice nurse reduce. If a woman requires further assessment and treatment, she attends the colposcopy service that is directly funded by the NSU. The NSU also funds a local co-ordination role to monitor uptake and process.

Goal - There is no national target but it has been suggested that the target should be that by 2011, 80% eligible women should have had a cervical smear within three years.

Outcomes - Since 2002, there has consistently been about 69% of the eligible Waikato population who has had a cervical smear within the previous three years, and usually about 87% who have had a smear within the preceding six years. During this time the eligible population has grown from about 90,000 to 96,000 women.

Number screened for 3 year period to 30.4.06	Ethnicity	Proportion (%)
8,623	Māori	13.6
53,655	Other	84.9
906	Pacific	0.1
63,184	Total	

For this period the coverage was about 65.8% (63,184/96,000).

The breast and cervical screening health promotion team has been restructured in 2006 to firstly separate the recruitment and health promoter roles, and secondly develop specific strategies to encourage Maori and Pacific women to partake in these screens. The other major focus that is only just underway is to work more closely with PHOs as GPs have been cited in recent research as a major influence in a woman's decision to have a breast or cervical screen. The reduction in GP fees for many women, the introduction of the Performance Management Programme and an electronic interface between BSM and Waikato PHO (that is planned to expand to all PHOs within the BSM area) are all seen as tools to increase uptake in both the breast and cervical programmes.

Ensure timely and acceptable access to cancer services by establishing standards

Nationally the Cancer Control Council has recommended, following advice from the MoH Quality and Safety, NZDHB and the NZCTWP, that while evolution of standards would be desirable there were more fundamental priorities for the cancer control programme before the sector was ready to implement formal standards.

National progress on this initiative is being addressed through:

1. Review and development of national cancer service specifications (currently Palliative care and Adolescent Cancer Services)
2. Establishing a national programme for cancer guideline and guidance development (initial guidelines are Referral of Patients with Cancer of Suspected Cancer and Breast cancer guidelines). This development is contracted through the NZ Guidelines Group.

The Midland region Patient Mapping project has agreed to adopt the National Institute of Clinical Excellence (NICE) standards. The patient mapping work will complete analysis of data and determine the waiting times between the key stages in the patient journey. The project will compare actual waiting time against national standards (if available) and the NICE guideline standards.

Establish multidisciplinary care for cancer patients

Waikato DHB has made progress towards cancer workforce development and supporting multi-disciplinary cancer teams.

In February 2006 the Ministry of Health devolved aggregated funding of \$3.14million to DHBs via the population base funding formula as part of the Crown Funding Agreement (CFA) variation round. The sustainable funds were directed to Cancer Control Strategy Phase 1 implementation, the target areas are:

- non-hospice palliative care, support and rehabilitation
- cancer workforce development

- supporting multidisciplinary cancer teams
- establishing regional cancer networks.

The Midland DHBs complied with the CFA service requirements to communicate local initiatives and agree regional priorities. Regional priorities from the Midland Region Non-Surgical Cancer Treatment Services Plan were considered, in particular establishment of a network and the need for care co-ordination.

Cancer Workforce Development

The Midland Region Cancer Network Report (Hewitt, 2006) provides the leadership and governance framework and identifies resources required to enable the successful establishment of the Midland Cancer Network.

Resources required are:

- Regional Clinical Director – appointed¹⁴ (based at Waikato Hospital)
- Regional Cancer Network Manager – appointed¹⁵ (based at Waikato Hospital)
- Regional Patient Mapping Project Manager – fixed term contract until 30/12/06¹⁶
- Oncology Liaison Nurse - appointed 0.5 fte for Waikato DHB (based at Waikato Hospital)
- Administration/analytical and project officer support.

The Midland Region Non-Surgical Cancer Treatment Services Plan (Barber, 2004) and findings from the patient mapping project (Scanlan L & Hewitt J, 2006) identified the need for major tumour groups care co-ordinators. Bay of Plenty DHB has appointed a breast care co-ordinator. Waikato DHB has funded 1.5 fte breast care co-ordinators and 0.5 fte Midland lead breast screening nurse. Lakes DHB, due to the level of funding and limited breast cancer numbers, has funded a 0.8 fte generic cancer co-ordinator. The participating DHBs will work collaboratively on the development of cancer care co-ordinator roles.

The Implementation Plan also reviewed the level of non-surgical cancer treatment staff types required to support the forecasted volumes and the financial implications.

In developing the Waikato DHB Palliative Care Strategy Plan (Hewitt J, 2005) an analysis of predicted workforce was completed using the Australian population-based specialist palliative care clinical staffing guidelines (Palliative Care Australia, 2005). This analysis highlighted gaps in the multidisciplinary team. The Waikato Palliative Care Operations Network has implemented several initiatives that contribute to a multidisciplinary approach and closes the workforce gaps, these are:

¹⁴ Funded by Bay of Plenty, Lakes and Waikato DHB

¹⁵ Funded by Waikato DHB

¹⁶ Funded by Bay of Plenty, Lakes and Waikato DHB

- Joint appointment of a third palliative care physician. The joint appointment is with Hospice Waikato and the Health Waikato (provider arm)
- Appointment of a specialist palliative care 'Link Nurse' to integrate palliative care services between the aged care organisations and the specialist palliative care unit, Health Waikato.
- A specialist palliative care nurse is leading the implementation of the pilot project to implement the Liverpool Care Pathway in the acute secondary tertiary setting.
- Multidisciplinary Approach to Care

The Midland Region Non-Surgical Cancer Treatment Service Implementation Plan (Midland DHBs, 2005) (and supplementary papers contained in section C) demonstrate support for a multidisciplinary team approach. The Implementation Plan recommends the establishment of multidisciplinary teams (MDTs), co-ordination of patient care and elements included in the role delineation model. The Implementation Plan identified that telemedicine and/or teleconference was an optional approach for linking the MDT across outreach centres. A stocktake of existing telehealth capability was completed for each DHB.

Waikato DHB has completed a review of the status of Waikato Hospital MDTs against United Kingdom measures for generic MDTs. The review identified the following issues/gaps:

- need for better co-ordination, time, place, patient list for review, diagnostic data
- membership and attendance at MDTs – all service teams need to be represented
- need for better information systems, clerical support and data collection to provide clinical monitoring performance.

A more recent multidisciplinary care, discussion document (19-10-06) reviews international perspectives, enablers and challenges and proposes recommendations for the future.

Multidisciplinary meetings

- WDHB Breast MDT: weekly, for screening and symptomatic patients, formal documentation. Present: Radiologist, Pathologist, Surgeons, Radiation Oncology, Medical Oncology, allied staff, Breast care coordinator. 90 % of Breast patients discussed.
 - Regional Breast MDT (Lakes, BOP): weekly alternating, screening and symptomatic patients, formal documentation. Present: Radiologist, Pathologist, Surgeons, Medical oncology (audio conferencing).
 - Chest conference (Lung Cancer): weekly, WDHB and Midland region, formal documentation. Present: Respiratory Physicians, Thoracic Surgeons, Radiologist, Medical Oncologists, Radiation Oncologists, Anaesthetist, Palliative care specialist.
- Head and Neck MDT: weekly, WDHB and midland region, formal documentation. Present: ENT surgeons, Maxilo-facial Surgeons, Plastic Surgeons,

Ophthalmology, Pathologist, Radiologist, Radiation Oncologist, Medical Oncologist, Palliative care specialist. 100% Head and Neck cases discussed.

- Gastrointestinal MDT: fortnightly, formal documentation not yet achieved, WDHB patients only, or referred patients. Present: Pathologist, Radiologist, Upper GI surgeons, including hepatic surgeon, Colorectal surgeons, Medical Oncology, Radiation oncology, Palliative care. 50% GI patients discussed.
- Gynaecology MDT: weekly, semi-formal documentation, regional cases discussed. Present: Gynaecologist (Gynae-oncologists not employed in region, work in progress), Radiologist, Pathologist, Medical oncologist, Radiation oncologist. 80% gynae cases discussed.
- Lymphoma MDT: fortnightly, formal documentation, regional. Present: Radiologist, Haematology, Radiation Oncology, Medical Oncology. Pathology reviewed at a pathology meeting also running fortnightly. All Lymphoma patients are discussed.
- Genito-urinary meeting informally starting as will be a CNS MDT.

Work to be done:

- Audit of meetings
- Development of care co-ordinator roles
- Gynae oncologists
- Improved pathology input
- Greater regional access to meeting through video conferencing.

Pilot Studies to map and analyse cancer patients' journey and clinical pathway

The Midland Region Non-Surgical Cancer Treatment Service Implementation Plan (Midland DHBs, 2005) recommended that process mapping of the patient's cancer journey should be undertaken for the major tumour groups of breast, lung, colorectal and prostate cancer and high-volume malignant haematological conditions.

The patient mapping project commenced in July 2005 with the mapping of early stage breast cancer. The project involves Waikato, Bay of Plenty and Lakes DHBs. The patient pathways have been developed using an adapted process mapping methodology utilised by the Cancer Services Collaborative Improvement Partnership, a National Health Service (NHS) programme to make improvements in the way cancer services are delivered to patients.

Process mapping involves looking in detail at all the separate steps in a patient's journey from referral through assessment, treatment and discharge.

The objectives of the patient mapping project are:

- to obtain a clear description of the current patient journey for each of the major tumour groups

- to identify issues, variations, service gaps and opportunities for improving services.

Information gathered from the patient mapping work has provided further evidence to support the implementation of the following early stage initiatives:

- funding of breast care co-ordinators (Waikato and Bay of Plenty DHBs) and generic care co-ordinator (Lakes DHB), lead screening nurse (Breast Screen Midland)
- initiatives to reduce waiting time for breast surgery (Waikato DHB)
- improve equity of access to breast screening (Midland region).

The Midland region will adopt the National Institute of Clinical Excellence (NICE) standards where there are no national or local standards. Analysis of regional tumour group data to the standards is work in progress. Nationally, the NZ Cancer Treatment Working Party will advance modifying the NICE standards for the NZ context.

Under the umbrella of the Midland Cancer Network it is recommended that patient mapping and a continuous quality framework is implemented in the activity programme.

An interim Midland Region Patient Mapping (Scanlan L & Hewitt J, 2006) report was endorsed by the Midland DHB CEOs in September and the report was submitted to the Ministry of Health. The Midland DHBs have extended the project for another six months until a sustainable funding pathway can be identified as outlined in the Midland Cancer Control Network report.

Establish Groups to Develop Guidance for Children, Adolescent and Adults

This specific priority relates to Goal 4: Improve the quality of life for those with cancer, their family and whānau through support, rehabilitation and palliative care. The term ‘guidance’ is defined as advice on how services should be configured to provide effective supportive care.

For children and adolescents this will be addressed as part of the LEAP programme (see below) and in the service specification for adolescents (lead by the paediatric oncology steering group). Guidance on supportive care for adults is likely to be part of the 2006/07 Ministry of Health work plan, informed in part by recommendations arising from several of the current cancer control implementation projects.

The Waikato Palliative Care Strategy Plan has identified the need to develop a transition pathway from youth services to palliative care adult services and recommendations for improving access and the service to palliative care support services (respite care access to resthomes and/or night/day relief).

Implement and Evaluate Pilot Survivorship Programmes for Children and Adolescent

Adolescents with cancer, while a small group, have special needs. Key objectives of the Action Plan include improving care provided to adolescents through an adolescent

cancer service, and a late assessment effects programme (LEAP) for survivors of childhood and adolescent cancer. A pilot programme has been established in the three Paediatric Oncology tertiary centres, led by the paediatric oncology steering group in collaboration with the three DHBs.

LEAP pilot plans to employ clinical nurse specialists to coordinate the long-term assessment of the medical, psychological and educational needs of all young people who have completed cancer treatment.

At a national level the adolescent sub-group of the NZCTWP has drafted a new Adolescent Oncology Service Specification which will provide the basis for a national specialised adolescent cancer service. The draft service specifications will now undergo a formal review process. At present three tertiary paediatric oncology centre DHBs have jointly supported a programme for the creation of adolescent support co-ordinators in those centres (joint DHB/Canteen initiative). It is anticipated that this programme for the provision of co-ordinators based at other DHB cancer centres will be extended in the future.

Waikato DHB at present contributes via the National Cancer Treatment Working Party.

Implement the New Zealand Palliative Care Strategy

The Waikato DHB Palliative Care Strategy Plan (Hewitt J, 2005) provides strategic direction for an integrated and co-ordinated palliative care service. The Waikato palliative care goal is to ensure that all providers of palliative care in the Waikato DHB work together with the community to ensure that the New Zealand Palliative Care Strategy is implemented in the most optimal way for the Waikato district. This is to ensure that all people with palliative care needs and their family/whānau have access to essential palliative care services, provided in a co-ordinated and culturally appropriate way.

The goal encompasses four key result areas:

1. Integrated and collaborative service
2. Patient focus on improved access and equity to palliative care services based on identified needs and informed choices
3. Workforce development to ensure a skilled and competent workforce committed to the palliative care approach
4. Quality Systems

Each of the key results areas has supporting objectives and strategic initiatives.

The Strategy Plan is underpinned with both an adult and child and youth palliative models of care.

The adult integrated service delivery model is based on patients receiving different levels and types of services depending on their needs. The patient and family/whānau

are the focus point with the general practice team supporting the patient and family/whānau. The primary providers are integral players in this model.

Wrapped around the patient and family/whānau is the concept of care co-ordination. Patients' episodes of care will move between different levels of care over time as the needs of the patient change. The three levels of care are: generalist (primary and community based palliative care services), intermediate (integration of generalist and specialist palliative care community based services), specialist (specialist palliative care services). The adult model of care builds on what Waikato DHB already has and formalises the development of the intermediate level of care where there are stronger links and integration of services within the community.

The needs of children and youth are different from adults and this is reflected in the palliative model of care. The Strategy Plan outlines principles that underpin promoting the holistic child and youth palliative care model.

Key themes of the model include:

- child/family focus
- philosophy of home based care wherever possible
- multidisciplinary team approach
- seamless patient flow continuum
- collaborative and integrated model with and between service providers
- approaches that intertwine palliative care with curative care are essential in paediatrics, as there is often uncertainty with prognosis with some cases.

Starship Hospital, Auckland DHB is the acknowledged tertiary provider for child health, including palliative care. Starship Hospital cares for specialist paediatric care needs and works in a partnership model with the local Waikato paediatric services including liaison with support services.

Children's palliative care services are not organised the same way as adult's. Paediatricians tend to remain involved in the child's care throughout their lives and work alongside other health providers of services. All Waikato children that have or are expected to have palliative care needs are under a Waikato paediatrician who is the designated lead provider team. The Starship specialist palliative care team supports the paediatric team as required.

A network of health providers delivers support and paediatric palliative care services. The Waikato DHB Palliative Care Strategy Plan describes the multi-disciplinary team approach and a care co-ordination process for children with malignant and non-malignant conditions, including respite care.

The Waikato Palliative Care Operations Network was established in November 2005 as the vehicle for guiding the implementation of the Strategy Plans recommendations. The Waikato Palliative Care - Progress Report 2005 and Action Plan 2006-07 (Hewitt

J, 2006) summarises Waikato palliative care progress up until June 2006 and outlines the way forward. The progress report section details the following developments:

- The establishment of the Waikato Palliative Care Operations Network which is the vehicle for guiding the implementation of the Strategy Plans recommendations
- An overview of new target funds invested into palliative care
- An update of key focus areas:
 - Collaborative care review project (community hospice team and district nurses in rural Waikato).
 - Review project of the palliative care support services administered by Disability Support Link (night /day relief and access to respite / EOL care).
 - Pilot project commenced to implement the Liverpool Care Pathway (LCP) for the dying person.
 - Joint initiative to appoint a 3rd palliative care physician between Hospice Waikato and Health Waikato which will include longer term development of a 24 hour/7 day consultancy service, outreach service in Te Kuiti and long term appointment of a clinical director for an integrated palliative care service in progress.
 - Development of a palliative care link nurse initiative working with resthomes/continuing care organisations commenced.
 - General practice provided support to those patients with a terminal illness in the way of access to GP visits to enable patients the choice to die at home.
 - For other key developments refer to the Progress Report.
- An overview of national developments:
 - Palliative care definitions
 - Service specifications
 - New Zealand palliative care work group priorities
 - Proposal to establish a Palliative Care New Zealand organisation.

Establish integrated programmes of supportive care and rehabilitation with defined leadership

Supportive care and rehabilitation encompasses ‘the essential services to meet the physical, emotional, nutritional, informational, psychological, sexual, spiritual and practical needs throughout a person’s experience with cancer. Evidence shows that when there is good social, psychological and cultural support, their quality of life improves.

The Waikato DHB does not provide a psychological–oncology service (Tuck W.). The Waikato DHB Mental Health Service provides crisis intervention. The Waikato / Bay of Plenty Cancer Society does fund psychology sessions for cancer patients in the community.

Psycho-oncology research at both a national and local level (Johnson, J. 2006: (Surgenor, L et al., 2006) identified a significant gap in service, and provides the platform for developing an integrated and collaborative psycho-oncology service for the Waikato DHB.

Develop a workforce plan for cancer control, ensuring consideration for cancer workforce shortages for Māori and Pacific peoples

At a national level a stocktake analysis of Cancer Specific Treatment Workforce has been completed and a comprehensive report is due to be reviewed by the Cancer Control Implementation Steering Group.

Waikato DHB has commenced planning cancer workforce requirements for non-surgical cancer treatment service and palliative care.

There is a national working group completing a workforce stocktake.

Waikato DHB is to develop a Workforce Plan.

Plan for capital expenditure on cancer control, including equipment, drugs and new initiatives

Capital

Waikato DHB has a five year Regional Cancer Services capital plan incorporated into the organisation's capital planning and prioritisation process.

The building of the fourth bunker and installation of a new linear accelerator at Waikato Hospital was completed in May 2006. The new linear accelerator is able to deliver medium or high-energy radiotherapy (produce 15 million volts of energy to be focused on radio-sensitive tumours).

Radiotherapy capacity is up 40% following the installation of the third high-energy linear accelerator.

With commissioning complete, an older (18 years) medium energy machine (600cc) has been removed from service due to mechanical failure. The replacement of this machine is planned and budgeted for the 2006-07 financial year.

The new linear accelerator for the recently decommissioned 600cc linear accelerator will have the capability to provide intensity modulated radiation therapy (IMRI). IMRI allows for the intensity of radiation to be altered to allow for maximum radiation treatment to the tumour site, with minimal radiation given to healthy tissue. Regional Cancer Centre staff have been trained in providing this treatment. The Oncology department is developing a business case for the purchase of immobilisation devices, which are required to allow for IMRT of head and neck cancers.

Brachytherapy

HDR Brachytherapy is a method whereby radiation is delivered into body cavities or tissues via applicators or hollow needles. The advantage of this treatment is that it allows a high dose of radiation to be given to the tumour while minimising damage to normal body tissues.

In February 2006 the Regional Cancer Centre treated its first prostate brachytherapy patient as part of a pilot programme. The programme was approved by Waikato DHBs Ethics Committee and Clinical Board and involved twenty patients in the Waikato region receiving High Dose Radiation (HDR) Brachytherapy.

The pilot was made possible, by the generous donation of funds from the Waikato Cancer Society, which has enabled the Regional Cancer Centre to purchase the equipment required, and to refurbish an existing bunker, to enable this treatment to be performed in the oncology department.

The pilot programme was completed in September 2006.

In June 2006 at a national DHBs CEO forum it was agreed to fund Waikato DHB to extend its brachytherapy services to cover the upper North Island. Representatives from the Regional Cancer Centre are meeting with Auckland DHB to determine the appropriate process for managing the brachytherapy service. Waikato DHB will begin recruiting additional staff in order to meet the increased demand for brachytherapy services.

National Projects

The Ministry of Health has commissioned planning for national cancer control capacity and capability project.

Auckland DHB is the lead DHB for developing a national business case for the establishment of PET scanning in New Zealand.

Apply the Health Equity Assessment Tool to policy and funding decisions regarding cancer control

The Health Equity Assessment Tool (HEAT) is a set of questions to assist the health sector to consider how particular inequalities on health have come about; who is the most advantaged; where the effective intervention points are to tackle inequalities; and the intended and unintended consequences of any actions.

The HEAT and analysis will apply to policy and funding decisions regarding cancer control.

Support Māori led cancer services where possible and ensure that all mainstream cancer services have a cultural framework for Māori that aligns with He Korowai Oranga

He Huarahi Oranga (Waikato DHB Strategic Māori Health Plan) has been written in line with the pathways in He Korowai Oranga. Regular monitoring of progress against He Huarahi Oranga is undertaken. This reporting occurs in addition to the monitoring and reporting against Whakatataka (the Māori Health Action Plan).

The strategic focus is on:

- addressing health inequalities
- service integration
- building Māori health provider capacity
- Māori health workforce
- Māori community development.

A gap exists in the provision of Māori led cancer services within the Waikato DHB. Rather than develop such services at this time, Waikato DHB plans to strengthen and develop current services to meet needs.

There are 15 Māori health providers within the Waikato DHB. These providers provide a range of generalist services for people with cancer, but there are no providers providing dedicated cancer services. In this way, Māori providers contribute indirectly to improving Māori access to cancer services (Cormack D. Purdie G. & Ratima M., 2005).

Waikato DHB has the Towards Māori Health Gain Organisational Framework (TMHGOF, 2002). The TMHGOF provides a structure that coordinates the knowledge, skills and relationships needed for the Waikato DHB and Māori to work together towards Māori health gain. As a result of the TMHGOF, Waikato DHB now has a bi-cultural education for all Waikato DHB staff and Tikanga Best Practice Recommended Guidelines which aid in the delivery of culturally effective services to Māori.

Develop a five-year rolling plan for research relating to cancer control

National

The Cancer Control Council and Health Research Council research funders forum will lead the development of a research plan.

The 21 DHBs through DHBNZ have established a health research fund for the purpose of commissioning research that addresses key knowledge gaps for DHBs. The fund intends to support and promote the translation of research findings into practice. Cancer was identified as the second priority and a Cancer Steering Group

under the DHBRF Governance Group is developing a research project request for proposal, which will fund \$1.5million cancer research over three years.

Increased participation in clinical trials

Waikato DHB participated in a national cancer research stocktake earlier in 2006. Goal 3, Action 49 - recommends there is increased participation in clinical trials.

Waikato regional cancer centre has an active research unit. Waikato DHB has an active breast cancer research unit.

Membership of the following collaborative research groups:

- ANZ breast cancer trialists group (IBCSG affiliated) – Breast cancer
- AGITG (affiliated to the NSABP) – Gastrointestinal cancers
- ANZGOG (Affiliated to the American GOG) – Gynae cancers
- ALLG – Luekaemia and Lymphoma trials
- TROG – Radiation trials
- CTNZ – clinical trials NZ

Waikato is involved in surgical trials and radiation trials.

Medical Oncology is involved in Phase 1, 2, and 3 trials. Trials are a balance of pharmaceutical sponsored and inter-group sponsored. All patients are offered available studies, but resource, and distance only allows around 5% of patients to participate.

Together with the cancer society (Waikato/BOP division) we are creating part time research positions, to increase home grown research.

The Midland Cancer Network through patient mapping, care coordinators and the clinical audit support unit, will start process audit research.

Develop national, standardised clinical cancer data

This is a national initiative. The New Zealand Health Information Service and the National Screening Unit commissioned the development of a Cancer Collections Framework to assist the Cancer Control Working Party with planning and prioritising information-based initiatives in response to the NZCCS (refer www.moh.govt.nz/cancercontrol). The National Cancer Management Dataview project is linking with New Zealand Health Information Strategy and parallel projects for primary health care, cardiovascular and diabetes. Phase one of the business case is in progress and will be submitted to Cabinet.

To ensure effective screening and early detection to reduce cancer incidence and mortality

Genetic High-Risk

The Midland region having employed a Medical Oncologist with a Ph.D in cancer genetics, will move to establish a Midland high risk screening service with close links to Auckland and a still to be formed national body. This will contribute to a nationally coordinated approach to familial cancer screening.

Timeline: 2007

Reduce the number of people developing infectious disease-related cancers

The Population Health Service (PHS) is planning to audit the HBV cases over the past four years, in particular looking at the process of information provided to cases and contact tracing. This will provide a guide to further actions.

The Public Health Unit (PHU) works with relevant stakeholders including primary and secondary care, to develop an appropriate clinical pathway for acute and chronic HBV cases. PHU will also be looking to set up a working group to begin to review the whole process around antenatal HBV immunisation. PHU will continue to support those involved to encourage immunisation, including HBV in childhood.

HIV infection is associated with malignancies such as Kaposi's sarcoma and non-Hodgkins lymphoma. In March 2006 PHS screening services launched Antenatal HIV screening in the Waikato. The objective is to reduce the likelihood of transmission of HIV from an HIV infected mother to her baby before or during birth, or by breastfeeding. Treatment is preventative and can reduce the chance of babies becoming infected from 25% to less than 1%. For women found to be HIV infected, earlier identification and treatment of HIV results in an improved prognosis. The HIV screen is voluntary and is offered to all women who fall pregnant in the Waikato, usually by their GP or midwife. HIV infection is increasing amongst women in New Zealand.

Reduce the number of people developing alcohol-related cancers

Targeted Māori work looks to build capacity within key Māori organisations and groups through the delivery of kaupapa Māori wānanga that will enable communities to develop their own evidence based local strategies to address alcohol related harm. This includes the co-ordination of Manaaki Tangata and Alcohol Advisory Council (ALAC) Community Action on Alcohol Wānanga to strengthen alcohol solutions among Māori wardens, marae, whānau, hapu and iwi within the Waikato region.

Targeting youth is a particular focus in relation to reducing access to alcohol. Youth Access to Alcohol (YATA) works towards addressing alcohol related violence and raising the school community awareness in terms of safe party interventions.

Waikato DHB working with key agencies plays a major part in addressing alcohol and alcohol related issues. These include the Police, local Councils, schools, Marae, Māori wardens, sports clubs, Ministry of Justice, ALAC, CAYAD (Community Action on Youth and Drugs). PHS implements activities to influence the adoption of

policies that support the reduction of alcohol related harm including working with sports clubs, councils and key community event organisers.

Working with the Foetal Alcohol Syndrome Trust is another PHS initiative, giving support through the provision of public health expertise.

PHS training and advice is provided regarding responsibilities under the Sale of Liquor Act (1989) and host responsibilities to sellers and services of alcohol. Monitoring and compliance continues under the Sale of Liquor Act. Work continues with SADD (Students Against Drink Driving) nationally to support their new direction that is a focus on reducing inequalities and reorientating the organisation to cater for and support Māori and Pacific youth adequately.

Combining enforcement activities with health promotion projects is a pilot strategy in some rural communities. These projects are being delivered in conjunction with police teams. Partnerships based on statutory responsibilities under the Sale of Liquor Act are also key in addressing local policy and practice with respect to alcohol interventions in communities generally. Partnerships and linkages with other key players are maintained, in part, through the Liquor Licensing Liaison Groups for which Public Health staff provides support (chair and secretariat). These committees cover all ten District Licensing Agency areas.

Public Health also has a central role with the Alcolink project and has taken a strong role working with the Police under the Police Partnerships Project and drink drive programmes.

Non-Surgical Cancer Treatment Services Role Delineation Model

Role delineation is a process that determines the complexity of the clinical activity undertaken by services, a staff profile, equipment, facilities and other support services required to ensure the services are provided safely and are appropriately supported. A role delineation model is used to describe service profile and roles of hospitals in the Midland region. It is also used for guiding the planning and development of new services at the level necessary to ensure sustainability, high quality, and safe and effective care.

Development of the role delineation model was a significant achievement for the project, and it is the understanding of the project members that the Midland region is the first to develop such a role delineation model in New Zealand. There was no national or international role delineation model that was applicable to the Midland region setting.

A stocktake of non-surgical cancer treatment services and supporting services was completed for each hospital throughout the participatory Midland DHBs. Using the New South Wales role delineation model as a guideline, a Midland Region non-surgical cancer treatment role delineation model was developed. The model is used to describe service profiles and role levels for each of the hospitals providing non-surgical cancer treatment services in the Midland region. This provides a benchmark of the current level of services for each DHB hospital and provides a guideline for DHBs planning future service development.

The main determinants of the role delineation model are the availability of:

- different types of services (chemotherapy administration, clinics provided on-site, radiation therapy)
- diagnostic equipment (CT scan, MRI, ultrasound and nuclear medicine)
- professional staff (specialised skills and competencies and leadership)
- facilities (for chemotherapy administration, day procedures and consulting space).

In overseas models, cancer surgery and population base also feature as determinants of service complexity. Incorporating cancer surgery determinants could be factored in the future. Population base has not been included as a determinant of service complexity. However, reference to population size and predicted number of cancer cases was included to ensure consistency across the region in terms of service levels and that the level is adequate to meet the needs of the catchment population.

A six-level model has been developed. Services are stratified into one of six categories. Table 2 below demonstrates the complexity of non-surgical cancer treatment services provided at the hospitals in the Midland Region based on the role delineation model.

Table 2: Role Delineation Model Summary of Non-Surgical Cancer Treatment Services provided at Hospitals in the Midland Region

Service Level	Complexity of non-surgical cancer treatment services provided	Bay of Plenty DHB	Lakes DHB	Waikato DHB
Level one	Management of acute conditions and complications			Tokoroa Hospital Te Kuiti Hospital Taumarunui Hospital
Level two	As for level one plus: Chemotherapy administration		Taupo Hospital	
Level three	As for level two plus: Clinics Multidisciplinary management	Tauranga Hospital Whakatane Hospital	Rotorua Hospital	
Level four	As for level two plus: Medical oncology & haematology services Radiation oncology clinics Oncology pharmacy service Multidisciplinary management Supervision of lower-level services within DHB			
Level five	As for level two plus: Medical oncology & haematology services Radiation oncology clinics Oncology pharmacy service Multidisciplinary management Training Clinical trials			Regional Cancer Centre (Waikato Hospital)
Level six	As for level five plus: Paediatric cancer services Specialist Surgical Services Complex haematological support (including sophisticated diagnostic facilities)	Accessed through Auckland DHB	Accessed through Auckland DHB	Accessed through Auckland DHB

There is currently no hospital in the Midland region providing a level four service. However, Tauranga Hospital could move to this level at some stage in the future. For Bay of Plenty DHB it would mean having medical oncologists and haematologists on-

site with a supporting infrastructure. With some less acute and less complex cases being treated at Tauranga Hospital the implications for the Regional Cancer Centre need to be considered.

There are implementation implications of the role delineation model (refer supplementary papers, section D). These implementation implications are consistent with outcome / results required in the New Zealand Cancer Control Action Plan 2005 – 2010.

Key themes of the implications include:

- chemotherapy administration and support
- staff not working in isolation
- multidisciplinary team approach
- strengthening clinical leadership
- medical support for outreach cancer patients.

The model has tightened requirements related to administration of chemotherapy. For hospitals where chemotherapy is administered there must be at least two experienced chemotherapy nurses present when administering chemotherapy, for verification purposes. Each hospital should have an additional experienced chemotherapy nurse (3rd nurse) to provide cover for leave and to minimise risk should a nurse resign.

Support for chemotherapy nurses must be provided on-site from a designated medical officer with adequate knowledge in cytotoxic medical treatment. The additional expectations that would be placed on medical officers are considered to be within their scope of practice. The medical officers would be supported by protocols, agreed pathways of care and consultant support from the Regional Cancer Centre.

The model does not support specialists working in isolation. For DHBs it is preferred that there be a minimum of two resident medical oncology, radiation and haematology specialists. The model is consistent with recommendations of the Australian Medical Workforce Advisory Committee, Sustainable Specialist Services: A Compendium of Requirements, AMWAC Report 1998. However it has been agreed that transitional solutions be explored when a hospital is transitioning from level three to a level four service. Also specialists must be well supported and must have strong links with the Regional Cancer Centre.

The model demonstrates a multidisciplinary approach to the management of care. As a consequence, multidisciplinary management of non-surgical cancer patients is expected to be provided in relation to level three services and above. This means level three plus hospitals must provide a multidisciplinary team approach to patients' diagnosis and treatment. For clinicians from outreach centres it will mean participation in multi-specialist meetings. It will also require cross-communications across the region, which could be facilitated through telephone conferences.

Where a hospital acts as a host for a visiting specialist (medical oncologist, radiation oncologist or haematologist) it is expected that there will be appropriately skilled medical officers resident in the area to support the visiting specialists. The resident medical officer should have dedicated time for dealing with cancer patients and be available as required to spend time with the visiting specialist when they are on-site. The resident medical officer must be willing to care and support patients once the visiting specialist leaves town.

The model supports strengthening the clinical leadership for the non-surgical cancer treatment services across the Midland region. Bay of Plenty DHB has assigned a local cancer champion portfolio and Lakes DHB is in the process.

The level of non-surgical cancer treatment services available varies across the Midland region and the model supports development of consistency of standards and approach. The financial impacts and availability of staff resources need to be considered as progress is made towards implementation of the recommendations. The role delineation model supports lower level services being provided away from the Regional cancer centre, where clinically and technologically appropriate. The model supports the provision of non-surgical cancer treatment services in accordance with agreed protocols, guidelines and pathways of care (once these are developed).

High Level Stocktake of Cancer Services Provided by Hospital & related health services

• **WAIKATO DHB**

Hospital/Health Service	Cancer Services
<i>Waikato Hospital</i>	Assessment Diagnosis Surgery Regional Cancer Centre
<i>Thames Hospital</i>	Assessment Surgery (breast only) Non-Surgical Cancer Treatment Services - chemotherapy administration, visiting specialists
<i>TeKuiti Hospital</i>	Surgery (breast only)
<i>Breast Screen Midland (Breast Care Centre, Waikato Hospital and Mobile Screening Units)</i>	Imaging Assessment Diagnosis

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Appendix 1 – Project Brief



Title	<u>Waikato DHB Cancer Control Implementation Action Plan</u>
Prepared by	Development & Support Unit
Date	August 2006
Background	<p>The New Zealand Cancer Control Strategy (NZCCS)¹⁷ provides a framework for reducing the incidence and impact of cancer in New Zealand along the whole cancer control continuum of prevention, early detection, effective diagnosis and treatment, rehabilitation, support and palliative care. Waikato DHB is committed to effective planning, co-ordination and integration of resources and activities, and monitoring and evaluation of cancer services across the cancer continuum.</p> <p>A Cancer Control Taskforce was appointed by the Minister of Health in September 2003 to develop the NZCCS: Action Plan 2005–2010¹⁸. The action plan identifies priorities for action and outlines in detail how the strategy objectives can be achieved.</p> <p>The goals of the NZCCS are:</p> <ol style="list-style-type: none"> 1. Reduce the incidence of cancer through primary prevention; 2. Ensure effective screening and early detection to reduce cancer incidence and mortality; 3. Ensure effective diagnosis and treatment to reduce cancer morbidity and mortality; 4. Improve the quality of life for those with cancer, their family and whānau through support, rehabilitation and palliative care; 5. 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; and 6. Improve the effectiveness of cancer control in New Zealand through research and surveillance. <p>The Cancer Control Taskforce has considered all of the actions in the Action Plan and determined that the themes and actions in the following table are high priority intended for phase one implementation:</p> <ul style="list-style-type: none"> ▪ Establish regional cancer networks; ▪ Expand smoking cessation services and programmes for Māori women; ▪ Implement Healthy Eating – Healthy Action; ▪ Implement strategies to improve coverage of BreastScreen Aotearoa in areas where the need for increased coverage has been identified; ▪ Ensure timely and acceptable access to cancer services by establishing standards; ▪ Establish multidisciplinary care for cancer patients; ▪ Pilot studies to map and analyse cancer patients' journey and clinical pathway; ▪ Establish groups to develop guidance for children and adolescents; ▪ Implement and evaluate pilot survivorship programmes for children and adolescents; ▪ Implement the New Zealand Palliative Care Strategy;

¹⁷ ¹⁷ Ministry of Health (2003)

¹⁸ Ministry of Health (2005)

- Develop a workforce plan for cancer control, ensuring consideration of cancer workforce shortages for Māori and Pacific peoples;
- Plan for capital expenditure on cancer control, including equipment, drugs and new initiatives;
- Apply the Health Equity Assessment Tool (HEAT) to policy and funding decisions regarding cancer control;
- Support Māori-led cancer services where possible and ensure that all mainstream cancer services have a cultural framework for Māori that aligns with He Korowai Oranga;
- Develop a five-year rolling plan for research relating to cancer control; and
- Develop a nationalised, standardised clinical data set.

It is important to note that Waikato DHB is the tertiary provider of cancer services for the Midland Region.

For the 2005/06 period DHBs were required by the Ministry of Health to report on targeted actions to be undertaken for two of the goals in the NZCCS Action Plan. This has been achieved by Waikato DHB. The goals targeted by Waikato DHB were:

- Establish a Midland Region Cancer Control Network framework;
- Implement the Non-Surgical Cancer Treatment Service Plan (2004) recommendations by:
 - Developing an implementation plan identifying priorities for the Midland region; and
 - Establish Midland region Clinical Director for cancer services.
- To develop a Waikato DHB Palliative Care Strategic Plan including a service delivery model.

The Ministry of Health requires DHBs to submit Cancer Control Implementation Action Plans in February 2007, which will take account of the goals in the NZCCS Action Plan. The NZCCS Action Plan provides the template for DHBs to develop action plans.

Waikato DHB will align itself with national directions and participate in a Midland region approach to the NZCCS action plan. To successfully implement national priority goals and objectives, Waikato DHB will continue to participate in local approaches with health providers such as primary health organisations, secondary – tertiary providers and intersectoral agencies. To implement the NZCCS it is important that the various facets of the health and disability sector work in a co-ordinated and collaborative fashion and contribute to achieving improvements across the cancer control continuum.

Project Statement

This project will develop a Waikato DHB Cancer Control Implementation Action Plan in line with the Ministry of Health phase-one priority requirements. This plan will align with national directions identified in the NZCCS plans. It will also align with regional directions identified by the Midland DHBs and reflect the Midland DHBs commitment to working together to achieve health gain.

Objectives

The overall objective of the project is identified below:

- Develop a Waikato DHB Cancer Control Implementation Action Plan that identifies priorities for action to reduce the incidence, impact and inequalities of cancer for the Waikato DHB area population by February 2007.

The focus of the content of the plan includes the following objectives:

- Outline relevant services across the spectrum of cancer continuum and provide a way forward for cancer control in the Waikato;
- Align Waikato DHB Cancer Control Implementation Action Plan with the Midland DHB cancer control plan's and Midland Region Non-Surgical Cancer Treatment Services Strategy and Implementation Plan's and findings from the Midland Region patient mapping project (in progress) to strengthen the secondary-tertiary provision of cancer services to the Midland Region population;
- Waikato DHB will complement the establishment a Midland Regional Cancer Control Network (MRCCN); and
- To identify options to reduce health inequalities in regard to cancer.

Implementation

A steering group facilitated by the Development & Support Unit will undertake development of the plan. The plan will describe the actions and initiatives that will set the pathway forward for improvement and enhancement for cancer control services. Baseline data will be collected and utilised to measure the extent to which the action and initiatives in the plan contribute to health gain and reducing inequalities in health.

The potential financial impact of recommendations will be identified and the actions and initiatives will be ordered into the following groups (and prioritised):

1. Those that can occur within existing resources;
2. Those that can occur with a small additional investment; and
3. Those that can occur with a significant additional investment.

If necessary full change management protocols and processes will be used in the implementation of the plan. Key actions and initiatives identified in the Waikato DHB Cancer Control Implementation Action Plan will be reflected in the appropriate Waikato DHB District Annual Plan (DAP).

Completion Criteria

The first phase of this project will be considered completed when an approved Waikato DHB Cancer Control Implementation Action Plan is submitted to the Ministry of Health in February 2007. However, it is important to note after the Ministry of Health has reviewed the plan they may feedback some suggested changes and areas for improvement.

Therefore, the second phase of the project will involve responding to this feedback. This phase will be considered complete when the Ministry of Health has approved the Waikato DHB Cancer Control Implementation Action Plan.

Strategic Accountability

Reducing the incidence and impact of cancer is identified as one of the key population health objectives in the New Zealand Health Strategy. To assist in the achievement of this objective, the Minister of Health launched the NZCCS in 2003. In March 2005 the NZCCS Action Plan 2005-2010 was released.

Reducing the rate and effects of cancer has been identified as a Health Priority in the Waikato DHB District Strategic Plan (DSP) 2006-2015. There will be a focus on reducing the inequalities in health in relation to the incidence and impact of cancer. It has been identified in the Waikato DHB HNA (2005) that some population groups are more likely to suffer worse consequences (i.e. morbidity, mortality) than other population groups. The populations that Waikato DHB will focus on are its identified Population Priorities in the Waikato DHB DSP 2006-2015¹⁹.

Additional key areas of focus in terms of reducing the incidence of cancer will be:

- Improving nutrition;
- Increasing activity;
- Reducing smoking;
- Reducing obesity; and
- Reducing other risk factors that can lead to cancer such as reducing ultra-violet radiation exposure, effects of alcohol intake, infectious diseases and occupational hazards.

Additionally the Waikato DHB Service and Campus Redevelopment Project and associated Models of Care provide significant strategic direction for the development of this plan and the actions and initiatives identified within.

¹⁹ People who live in areas of low socio-economic status, Māori, Older persons, and Pacific people

Stakeholders	<u>Internal</u>	<u>External</u>
	<ul style="list-style-type: none"> Health Waikato (including the Population Health Service, Waikato Hospital, Rural Hospitals and Community Services; Surgical services; Clinical and Clinical support services; Child Health; Women's Health; Older Persons Health, Clinical Streams, Regional Cancer Centre); Te Puna Oranga (Māori Health Service); Development & Support Unit; Planning & Funding Division; Information Services; Human Resources; and Communications Unit. 	<ul style="list-style-type: none"> Consumers; Community groups e.g. Waikato / Bay of Plenty Division of the Cancer Society, Child Cancer Foundation, Canteen; NGO providers e.g. Waikato Community Hospice Trust, Sport Waikato; Iwi / Māori health providers; Pacific health providers; Primary Health Organisations; Private hospital providers; Intersectoral Agencies e.g. schools, OSH, WINZ, local Council; and Educational Providers for health professionals and volunteers.
Implications for Māori	<p>It is essential that there is Māori participation in the development of this plan. The Waikato DHB HNA identified the following information in terms of the burden of cancer for Māori.</p>	
	<p>The overall incidence of cancer is higher in Māori compared with non-Māori, based on 1988–92 data and up to 1997 (the latest period for which data are available). Much of the excess comes from differences in smoking-related cancers, such as cancer of the lung. In 1996 Māori had considerably higher registration rates with the cancer registry than non-Māori, for cancer of the liver, stomach, lung, cervix, pancreas, testis and breast. Māori registration rates for cancer of the prostate and colon, and for melanoma of the skin, were considerably lower than non-Māori rates. The rates and age of female cancers are of concern.</p> <p>The cancer burden in New Zealand is also unequally distributed according to socio-economic status. Studies of cancer mortality among men have shown that men in manual and unskilled occupations tend to experience higher overall cancer mortality than men in professional and administrative occupational groups. Major smoking-related cancers (e.g. lung, larynx, mouth) accounted for 78% of the overall gradient, but smoking would not necessarily have caused all of these cancers. However, cancer deaths due to smoking occur more than three times as often among New Zealand men in the lowest education and income bracket as those in the highest bracket.</p>	
Information Services (IS) Implications	<p>The extent of implications for IS in regard to this project is not able to be accurately detailed at this time, therefore it is important that IS are engaged in the development of this plan.</p>	
Resources and Project Structure	<p>The Project Structure is attached.</p>	
Key milestones and timeline	<ul style="list-style-type: none"> Early August 2006 – Submission of Project Brief to EG for review; Mid August 2006 – Updated Project Brief submitted to EG for approval; Mid August 2006 - Establishment of Steering Group; September – October 2006 – Steering Group develop Waikato DHB Cancer Control Implementation Plan; Stakeholders workshop to review draft plan October 2006; 	

Financial Summary

- November 2006 – draft plan submitted to EG for review and approval to go forward to the Board agenda for review; and
- February 2007 – updated draft plan approved by Board and sent to Ministry of Health.

One time cost

N/A

Ongoing cost

N/A

Development & Support Unit Budget

- Project Manager and operating costs will be met from within the Development & Support Unit

Specific Operating Costs

- Stakeholders workshop – estimate \$3,000 (costings based on Seminar on Health Status of Children & Young People in the Waikato DHB region); and
- Printing of Waikato DHB Cancer Control Implementation Action Plan – estimate 100 x \$12.00 = \$1,200.00

Cost Savings

N/A

Risk management

The key risks:

1. Key stakeholders not effectively engaged in development of plan;
2. Plan not completed by February 2007; and
3. Plan does not meet Ministry of Health/Board/Community expectations.

Key risk mitigation:

1. Key stakeholders identified and strategies to ensure appropriate engagement developed;
2. Project plan in place and regular reporting EG and project sponsor occurs;
3. Ensure: Ministry of Health guidelines are followed; Board is kept updated on progress and direction; community feedback is reviewed and actioned where appropriate.

Risks we are exposed to if we do not proceed with the project.

The risk of not proceeding with this project is not meeting the Ministry of Health requirement of having a Cancer Control Implementation Action Plan. This is likely to have significant funding implications.

Constraints

The key area of constraint with regard to this project is staff capacity. There are limitations on the amount of staff time that can be devoted to this project taking into account already existing workload pressures.

Communication Plan

Key information to be communicated and to whom it should be communicated will be identified as part of this project. It is important that the Communications Unit participate in this project and in particular lend their expertise to the development of a communications plan linked to this project.

Waikato DHB Cancer Control Implementation Action Plan –Project Structure

