

PART III:

POPULATION GROUPS  
& THE HEALTH SERVICE  
SETTING

## **Part III: Population Groups & The Health Service Setting**

This section of the report profiles health status and health need in a series of sub-groups and service areas relevant to the greater Auckland DHB population. The DHB population could be cut into a myriad of sub-groups and services. For the purposes of this report, however, the population groups selected for analysis and inclusion have been limited to those with either unique features of specific importance to the Auckland DHB, high health need groups or those groups identified as priorities in the New Zealand Health Strategy. The service areas included are those services that are of significance to the NZHS, demand-driven services and services of particular interest to the DHB of which little is currently known.

It is expected that over time the DHB will profile the health status and health need of other population sub-groups, such as men, sole parents, sex workers etc and broad service areas within the catchment zone.

### **3.01 Maori Health**

#### Services Available

Maori access mainstream services in the community. In addition, there are a number of Maori health service providers in the Auckland DHB zone. These services are listed and profiled throughout the various sections of this report.

#### Demographics

There were about 32,000 Maori people living in the Auckland DHB zone at the time of Census in 1996. Maori comprised approximately 9.1 percent of the Auckland DHB population and more than fifty percent of Maori were under the age of 25 years in 1996. In addition, more than fifty percent of the Maori population in 1996 lived in the more deprived areas of the Auckland DHB zone (NZDEP96, deciles 8-10), compared to less than thirty percent of non-Maori living in the more deprived areas of the zone (NZDEP96, deciles 8-10).

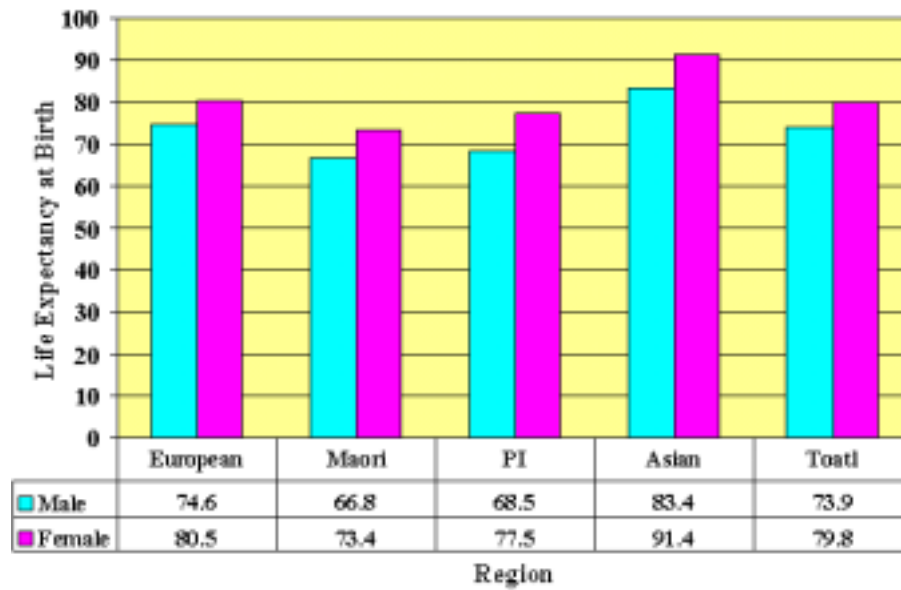
See section on demographics for further details.

#### Health Status of Maori in the Community

Figure 77 shows that both Maori males and females had the lowest life expectancies of all ethnic groups in the Auckland DHB.

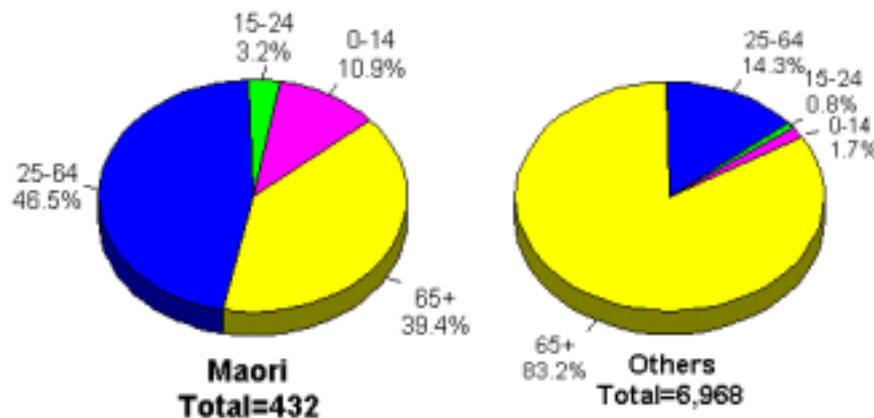
Figure 78 shows the number of Maori and 'Other' (non-Maori, non-Pacific) Auckland DHB residents that died between January 1996 and December 1998. There were 432 Maori people that died during this period. About sixty percent of Maori died before they reached the age of 65 years, compared with only 17 percent of 'Others', or non-Maori, non-Pacific peoples.

Figure 77: Life expectancy at birth in Auckland DHB by Ethnicity, 1996



Data Source: 1996 Census

Figure 78: Number of deaths by age group for Auckland DHB, Jan 96-Dec 98



Data Source: 1996 Census

Cancer and heart disease were the leading causes of death for both Maori and Non-Maori, during this period (Table 64). Injury was also a major cause of death for Maori in the Auckland DHB. Lung cancer was the leading cause (Table 65) of cancer death for Maori (34.8% of all cancer deaths), but was the second leading cause of cancer death in the non-Maori, non-Pacific population (15.6% of all cancer deaths).

Note that the mortality data presented below is for the period January 1996 to December 1998. At the time of writing, this was the most current mortality data available for analysis.

**Table 64: Top ten causes of death, by ethnicity, for the Auckland DHB pop., Jan 96-Dec 98**

Maori	Number	%	Non Maori Non Pacific	Number	%
Cancer	115	26.6	Cancer	1795	25.8
Ischaemic Heart diseases	86	19.9	Ischaemic	1664	23.9
Injury and poisoning	50	11.6	Stroke	761	10.9
Circulatory sys	27	6.3	Circulatory sys	505	7.2
CORD	24	5.6	CORD	408	5.9
Stroke	23	5.3	Injury and poisoning	333	4.8
Condition originate in perinatal	19	4.4	Pneumonia Influenza	301	4.3
Diabetes	18	4.2	Mental disorder	247	3.5
Birth defects	12	2.8	Digestive sys	216	3.1
Infectious & Parasitic	7	1.6	Nervous Sys	135	1.9

Data Source: NZMDS

**Table 65: Top five leading causes of death, by ethnicity & cancer type, for the Auckland DHB pop., Jan 96-Dec 98**

Maori	Number	%	Non Maori Non Pacific	Number	%
Lung cancer	40	34.8	Large bowel cancer	282	15.7
Breast cancer	12	10.4	Lung cancer	280	15.6
Leukaemias	8	7.0	Leukaemias	177	9.9
Pancreas cancer	7	6.1	Breast cancer	138	7.7
Liver cancer	6	5.2	Prostate cancer	115	6.4

Data Source: NZMDS

*Child (0-14yrs) Mortality*

Table 66 shows the top five causes of death for Maori children and non-Maori, non-Pacific children. The same causes of death (condition originating in perinatal period and birth defects) were the top two leading causes of death for both Maori and non-Maori, non-Pacific children. Maori children had much higher percentages of deaths from injury and cot death than and non-Maori, non-Pacific children.

**Table 66: Top five leading causes of death for children (0-14), by ethnicity, for Auckland DHB, Jan 96-Dec 98**

Maori	Number	%	Non Maori Non Pacific	Number	%
Condition originate in perinatal	19	40.4	Condition originate in perinatal	45	37.8
Birth defects	10	21.3	Birth defects	28	23.5
Injury&poinsoning	9	19.1	Cancer	11	9.2
Cot Death	6	12.8	Injury&poinsoning	11	9.2
Infectious & Parasitic	2	4.3	Cot Death	8	6.7

Data Source: NZMDS

The perinatal mortality rate (deaths within the first seven days of life, rate for 1,000 births) for the period January 1996 to December 1998 is presented in Table 7 in the health status section of this report. Auckland DHB Maori are shown to have had higher perinatal mortality rates compared to non-Maori in both the Auckland DHB and New Zealand populations. Figure 36 in the health status section of this report shows that Auckland DHB Maori also had a higher infant mortality rate compared to non-Maori in both the Auckland DHB and New Zealand populations.

Table 67 shows that Maori children in the Auckland DHB had age-specific mortality rates that were higher than Maori in the all New Zealand population, but that these rates were lower than those for Pacific children within the Auckland DHB zone.

**Table 1 Child age-specific mortality rates, by ethnicity, for the Auckland DHB & NZ pops.,1996-1998 (per 100,000).**

Auckland DHB	Others	Maori	Pacific	Total
0-4	190.5	334.9	347.7	246.8
5-9	13.9	18.1	12.3	14.2
10-14	28.7	34.7	49.1	33.3
0-14	80.7	145.7	152.5	104.7

NZ	Others	Maori	Pacific	Total
0-4	194.8	332.4	352.1	243.4
5-9	17.1	17.8	13.1	17.0
10-14	20.1	39.5	25.7	24.8
0-14	76.0	138.3	143.9	96.1

Data Source: NZMDS

#### *Young People's Mortality*

Table 68 shows the top five causes of death for young Maori and young non-Maori, non-Pacific residents of the Auckland DHB zone between January 1996 and December 1998. Both motor vehicle crashes and suicide were the top two leading causes of death for young Maori and non-Maori, non-Pacific people in the zone. Note that the percentage of young Maori dying from cancer was double that of non-Maori, non-Pacific young people.

**Table 68: Top five leading causes of death for young people (15-24yrs), by ethnicity, for the Auckland DHB pop., Jan 96-Dec 98**

Maori	Number	%	Non Maori Non Pacific	Number	%
Motor vehicle crashes	4	28.6	Motor vehicle crashes	17	30.9
Suicide	4	28.6	Suicide	15	27.3
Cancer	2	14.3	Other injury	9	16.4
Other injury	2	14.3	Cancer	4	7.3
Mental disorder	1	7.1	Mental disorder	3	5.5

Data Source: NZMDS

#### *Adult Mortality (25-64yrs)*

Forty seven percent of all 432 Maori deaths (for the period January 1996 to December 1998) occurred among Maori aged 25-64 years. In comparison, only 14 percent of non-Maori, non-Pacific deaths occurred among people in this age group. Table 69 shows the top five causes of death for Maori and non-Maori, non-Pacific adults living in the Auckland DHB zone. Both cancer and ischaemic heart disease were the top two causes of death in these populations for the period January 1996 to December 1998. Note that the percentage of Maori adults that died of ischaemic heart disease was seven percent greater than that for non-Maori, non-Pacific adults.

**Table 69: Top five leading causes of death for adults (25-64yrs), by ethnicity, for the Auckland DHB pop., Jan 96-Dec 98**

Maori	Number	%	Non Maori Non Pacific	Number	%
Cancer	63	31.3	Cancer	415	41.5
Ischaemic heart disease	45	22.4	Ischaemic heart disease	145	14.5
Circulatory sys	14	7.0	Suicide	85	8.5
CORD	12	6.0	Circulatory sys	49	4.9
Other injury	10	5.0	Other injury	43	4.3

Data Source: NZMDS

#### *Older Adult Mortality (65yrs+)*

Table 70 shows the top five causes of death for older adult Maori, compared with older non-Maori, non-Pacific adults in the Auckland DHB population. The percentage of Maori who died of cancer was higher than for non-Maori, non-Pacific older adults. Deaths from diabetes were also high among Maori.

**Table 70: Top five leading causes of death for older adults (65yrs+), by ethnicity, for the Auckland DHB pop., Jan 96-Dec 98**

Maori	Number	%	Non Maori Non Pacific	Number	%
Cancer	50	29.4	Ischaemic heart disease	1519	26.2
Ischaemic heart disease	41	24.1	Cancer	1365	23.6
Stroke	17	10.0	Stroke	718	12.4
Circulatory sys	13	7.6	Circulatory sys	452	7.8
Diabetes	12	7.1	CORD	384	6.6

Data Source: NZMDS

#### *Potentially Avoidable Mortality*

Potentially avoidable mortality rates can be used to measure health improvement in a population over time. Potentially avoidable mortality rates consider the causes of ill health and classify various diseases and injuries into avoidable and unavoidable categories. The concept of 'avoidability' assumes that certain health outcomes are responsive to health sector interventions (through prevention, early diagnosis or treatment). Therefore, if an individual is exposed to an appropriate health intervention, then that individual may 'avoid' a specific disease or injury. It is important to note that all deaths after the age of 75 years are assumed to be 'unavoidable'.

Potentially avoidable mortality can be broken down into sub-categories, according to where a health intervention, preventing the onset of ill health, is provided in the health sector:

Primary avoidable mortality (PAM) – conditions that are preventable, whether through individual behaviour change or population level intervention;

Secondary avoidable mortality (SAM) – conditions that respond to early detection and treatment, typically in a primary health care setting;

Tertiary avoidable mortality (TAM) – conditions whose case fatality rate can be significantly reduced by existing medical or surgical treatments (typically but not necessarily in a hospital setting) even when the condition is fully developed.

Table 71 shows the numbers and percentages of potentially avoidable deaths, between January 1996 and December 1998, for the Auckland DHB and New Zealand populations. Of all the deaths during this period, seventy percent of them theoretically could have been avoided. It is interesting to note that the percentage of potentially avoidable deaths was the same for both the Auckland DHB and New Zealand populations.

**Table 71: Potentially avoidable mortality, for the Auckland DHB & NZ pops., 1996-1998**

	ADHB	%	NZ	%
Non-avoidable	967	29.9	11369	29.9
Potentially avoidable	2266	70.1	26712	70.1
Total Deaths	3233	100.0	38081	100.0

Data Source: NZMDS

Out of the seventy percent of deaths in the Auckland DHB that could have been avoided, 51 percent could have been prevented through individual behaviour change (PAM). Approximately 26 percent could have been prevented through early detection and treatment (SAM) and about 23 percent could have been significantly reduced by medical or surgical treatments (TAM).

**Table 72: Potentially avoidable mortality, for Maori in the Auckland DHB, 1996-1998**

	ADHB	%	NZ	%
PAM	1159	51.2	13825	51.8
SAM	593	26.2	6841	25.6
TAM	513	22.7	6047	22.6
Total avoidable	2266	100.0	26712	100.0

Data Source: NZMDS

Table 72 shows percentages of avoidable deaths for both the Auckland DHB and New Zealand Maori populations, by sub-category, were very similar to those in Table 71. Table 73 shows percentage of potentially avoidable deaths to total deaths, by age group and ethnicity. As can be seen, approximately ninety percent of deaths among Maori children in the Auckland DHB population were potentially avoidable.

**Table 73: Potentially avoidable mortality as a % of total mortality, by age group and ethnicity, for the Auckland DHB & NZ pops., 1996-1998**

ADHB	Other	Maori	PI	Total
0	88.0	92.1	88.1	88.9
1-14	27.8	88.9	58.3	43.9
15-24	69.1	78.6	86.4	74.7
25-44	66.4	72.0	67.8	67.4
45-64	67.7	73.0	75.1	69.7
65-74	69.6	69.0	68.9	69.5
Total	68.7	74.6	73.8	70.1
NZ	Other	Maori	PI	Total
0	82.0	86.1	89.4	84.4
1-14	58.7	70.6	66.7	63.3
15-24	78.7	78.9	72.6	78.4
25-44	67.6	71.9	67.1	68.6
45-64	68.0	73.1	74.7	69.4
65-74	68.3	75.4	72.1	69.1
Total	68.8	75.1	74.3	70.1

Data Source: NZMDS

Table 74 shows the top ten potentially avoidable causes of death for Maori in the Auckland DHB zone.

**Table 74: Top ten potentially avoidable causes of death for Maori, in the Auckland DHB pop., 1996-1998**

ICDA	Maori	%
15 Ischaemic heart disease	67	25.9
10 Lung cancer	28	10.8
20 Motor vehicle crashes	18	6.9
32 Diabetes	16	6.2
14 COD	14	5.4
27 Suicide	12	4.6
11 Breast cancer	11	4.2
56 Other perinatal conditions	10	3.9
16 Stroke	8	3.1
54 Congenital anomalies	8	3.1

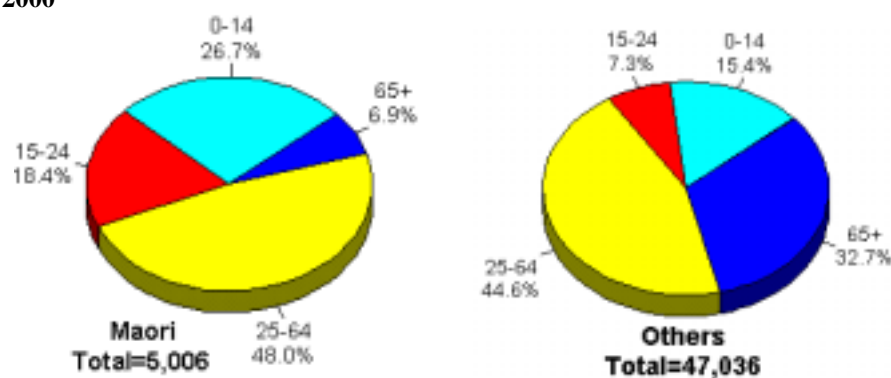
Data Source: NZMDS

### Service Utilisation

This section contains hospital utilization data only. This was the only service utilization data available at the time of writing that could be analysed by ethnicity.

There were 5,006 Maori living in the Auckland DHB zone that were discharged from public hospitals between July 1999 and June 2000. About 45 percent of these discharges were for young people aged under 25 years, compared with only 22 percent for non-Maori, non-Pacific people under 25 years of age (see Figure 79).

**Figure 79: Public hospital discharges, by age group & ethnicity, for the Auckland DHB, July 1999-June 2000**



Data Source: NMDS

Table 75 shows the top ten diagnoses for both Maori and non-Maori, non-Pacific peoples between July 1999 and June 2000. As can be seen, twenty percent of all public hospital discharges for Maori were for pregnancy-related conditions, compared to only 14 percent for non-Maori, non-Pacific peoples. Injury and respiratory conditions were concerns for Maori. It is important to note here that though cancer and ischaemic heart disease were the top two leading causes of death, for both Maori and non-Maori, non-Pacific peoples, the discharges for these two disease categories were not among the top ten list for Maori.

**Table 75: Top ten public hospital discharge diagnoses, by ethnicity, for the Auckland DHB pop., July 1999-June 2000**

Maori	Number	%	Non Maori Non Pacific	Number	%
Pregnancy related	1,002	20.0	Pregnancy related	6746	14.3
Other injury	331	6.6	Digestive sys	3312	7.0
Genitourinary sys	316	6.3	Cancer	2960	6.3
Digestive sys	291	5.8	Genitourinary sys	2631	5.6
Nervous Sys	279	5.6	Circulatory sys	2388	5.1
Respiratory sys	254	5.1	Nervous Sys	2271	4.8
Skin	193	3.9	Other injury	2054	4.4
Condition originate in perinatal	181	3.6	Ischaemic heart disease	1797	3.8
Circulatory sys	171	3.4	Musculoskeletal sys	1747	3.7
Motor vehicle crashes	151	3.0	Motor vehicle crashes	1735	3.7

Data Source: NMDS

Tables 76 to 79 show the top ten Maori public hospital discharge diagnoses by DRG and age group.

**Table 76: Top ten public hospital discharge diagnoses, by DRG cluster for Maori children (0-14yrs), living in the Auckland DHB zone, July 1999-June 2000**

DRG Descriptions (0-14 )	Maori	%
ENT	173	13.2
Whooping cough and acute bronchiolitis	54	4.1
Cellulitis	46	3.5
Bronchitis and asthma	42	3.2
Fracture; sprain; strain	40	3.1
Otitis media and URI, Laryngotracheitis, Nasal trauma and deformity	38	2.9
Respiratory infections or inflammations	37	2.8
Gastroenteritis /Other digestive system diagnoses	30	2.3
Respiratory signs and symptoms	25	1.9
Injury, Trauma to the skin; subcutaneous tissue and breast	23	1.8

Data Source: NMDS

**Table 77: Top ten public hospital discharge diagnoses, by DRG cluster for young Maori (15-24yrs), living in the Auckland DHB zone, July 1999-June 2000**

DRG Descriptions (15-24)	Maori	%
Abortion	59	6.5
Menstrual; other female reproductive system disorders	42	4.6
Threatened abortion	36	4.0
Postpartum and post abortion diagnoses	28	3.1
Abdominal pain or mesenteric adenitis	22	2.4
ENT	17	1.9
Bronchitis and asthma	17	1.9
Cellulitis	17	1.9
Mental Disorder, drug and alcohol	14	1.5
Hand or wrist procedures	13	1.4

Note: excludes delivery and neonatal

Data Source: NMDS

**Table 78: Top ten public hospital discharge diagnoses, by DRG cluster for Maori adults (25-64yrs), living in the Auckland DHB zone, July 1999-June 2000**

DRG Descriptions (25-64)	Maori	%
Chest pain/angina	82	3.5
Cellulitis	69	2.9
Chronic obstructive airways disease/Interstitial lung disease	55	2.3
Bronchitis and asthma	54	2.3
Mental disorder/ drug and Alcohol	54	2.3
Pelvic evisceration and radical vulvectomy	50	2.1
Respiratory signs and symptoms	48	2.0
Abdominal pain or mesenteric adenitis	48	2.0
Infections of the female reproductive system	48	2.0
Abortion	46	1.9

Note: excludes delivery and neonatal

Data Source: NMDS

**Table 79: Top ten public hospital discharge diagnoses, by DRG cluster for older Maori adults (65yrs+), living in the Auckland DHB zone, July 1999-June 2000**

DRG Descriptions	Maori	%
Lens procedures	24	6.6
Heart failure and shock	22	6.1
Chest pain/angina	22	6.1
Malignancy /neoplasms	16	4.4
Respiratory infections or inflammations	16	4.4
Rehabilitation/Aftercare musculoskeletal system	16	4.4
Non-major arrhythmia and conduction disorders	10	2.8
Signs and symptoms	9	2.5
Cerebrovascular disorders	8	2.2
Chronic obstructive airways disease/Interstitial lung disease	8	2.2

Data Source: NMDS

### *Potentially Avoidable Hospitalisations*

A potentially avoidable hospitalisation indicates the occurrence of a hospitalization for an injury or illness that could, theoretically have been avoided by a timely and appropriate health intervention.

Avoidable hospitalisations are broken down into:

- Preventable hospitalisations (PH) – hospitalisation for a condition that could have been prevented altogether;
- Ambulatory sensitive hospitalisation (ASH) – hospitalisation for a condition that could have been treated at an earlier stage in the primary health care setting;
- Injury prevention (IP) – hospitalisations preventable through injury prevention.

Table 80 shows the number and percentage of potentially avoidable hospitalizations for the Auckland DHB and New Zealand populations, between July 1999 and June

2000. Of all the discharges during this period, 25 percent could theoretically have been prevented.

**Table 80: Potentially avoidable hospitalizations, for the Auckland DHB & NZ pops., 1999/2000**

	ADHB	%	NZ	%
Non-avoidable	37446	75.5	430000	74.6
Potentially avoidable	12150	24.5	146435	25.4
Total Discharges	49596	100.0	576435	100.0

Data Source: NMDS

From the Auckland DHB discharges that could theoretically be prevented, approximately 15 percent could have been prevented altogether. Approximately 73 percent could have been prevented through early treatment at the primary health care level and 12 percent could have been avoided through injury prevention (Table 81).

**Table 81: Potentially avoidable hospitalizations, by sub-category, for the Auckland DHB & NZ pops., 1999/2000**

PAH type	ADHB	%	NZ	%
PH	1880	15.5	24004	16.4
ASH	8871	73.0	103829	70.9
IP	1399	11.5	18602	12.7
Total PAH	12150	100.0	146435	100.0

Data Source: NMDS

Table 82 shows the percentage of potentially avoidable discharges to total discharges, by age group and ethnicity for the 1999 to 2000 financial year. Almost sixty percent of discharges among Maori children in the Auckland DHB zone were avoidable.

**Table 82: Potentially avoidable hospitalizations as a % of total hospitalizations, by age group and ethnicity, for the Auckland DHB & NZ pops., 1999/2000**

ADHB	Other	Maori	PI	Total
0	10.3	10.8	12.4	10.8
1-14	37.5	46.2	50.4	42.2
15-24	21.4	15.5	15.4	19.1
25-44	14.1	20.9	13.5	14.6
45-64	32.6	40.3	38.1	34.0
65-74	35.2	41.0	45.2	36.4
Total	23.5	27.8	26.7	24.5
NZ	Other	Maori	PI	Total
0	12.2	14.4	13.8	12.8
1-14	40.8	49.0	51.2	43.7
15-24	20.2	15.3	15.2	18.6
25-44	14.5	18.2	14.3	15.1
45-64	29.2	32.8	36.7	30.1
65-74	32.0	32.0	37.0	32.1
Total	24.8	27.5	27.0	25.4

Data Source: NMDS

Table 83 shows the top ten potentially avoidable discharge diagnoses for Maori in the Auckland DHB zone.

**Table 83: Top ten potentially avoidable causes of hospitalization for Maori, in the Auckland DHB pop., 1999/2000**

	Maori	%
Cellulitis	154	11.5
ENT infections	127	9.5
Angina	126	9.4
Respiratory infections	113	8.4
Asthma	102	7.6
Road Traffic Injury	80	6.0
CORD	67	5.0
Gastroenteritis	59	4.4
Kidney Urinary infection	54	4.0
Dental conditions	52	3.9

Data Source: NMDS

## Disease in the Community

### *Cancer*

Age standardised mortality rates from all causes of cancer are presented in Table 64 (see cancer section). Maori had much higher mortality rates from cancer than other ethnic groups in the Auckland DHB population, between January 1996 and December 1998. Auckland DHB Maori females had the highest rate of cancer for any female ethnic population.

### *Lung cancer*

Age standardised mortality rates from lung cancer are presented in Table 71 (see cancer section). Maori had much higher mortality rates from lung cancer than other ethnic groups in the Auckland DHB population, between January 1996 and December 1998. Auckland DHB Maori females had the highest rate of lung cancer for any female ethnic population.

One explanation for the high rate of lung cancer for Maori females was the high percentage of Maori females who reported smoking in the 1996 Census (Table 84).

**Table 84: Smoking rates (% pop.) among Maori (15yrs+), by gender, in the Auckland DHB & NZ pops., 1996**

% of Maori Smoking	Male	Female	Total
Auckland DHB	36.1	41.7	39.1
NZ	37.6	45.0	41.4

Data Source: Census 1996

### *Cardiovascular disease*

Maori had the highest mortality rate for ischaemic heart disease among ethnic groups in the Auckland DHB zone (see Figure 71 in cardiovascular disease section). However, the rate in the Auckland DHB was lower than the rate for Maori nationwide.

In contrast with heart diseases, Maori in the Auckland DHB had a very similar mortality rate from stroke as Maori nation-wide (see Figure 76 in cardiovascular disease section). Among Auckland DHB ethnic groups, Pacific people had the highest mortality rate from stroke.

Table 85 shows that although Maori in the Auckland DHB had a much higher mortality rate for rheumatic heart disease compared to other ethnic groups, the rate was lower than that for Maori nation-wide.

**Table 85: Age standardised mortality rates for rheumatic heart disease (35+ yrs), by ethnicity, for the Auckland DHB & NZ pops., 1996-98**

	Other peoples	Maori	Pacific peoples	All ethnic groups
Auckland DHB	4.0	18.4	14.9	5.8
NZ	4.9	26.2	19.9	6.9

Data Source: NZMDS

Although cardiovascular disease was one of the major causes of death among Maori, the tables below (Tables 86 & 87) show that the age-standardised discharge rates for coronary bypass grafts (CABGs) and angioplasty operations for Maori were low compared to rates for other ethnic groups.

**Table 86: Age standardised rates for CABGs, by ethnicity, for the Auckland DHB & NZ pops., 1999/2000**

	Other peoples	Maori	Pacific peoples	Total
Auckland DHB	49.5	37.3	77.1	51.3
NZ	46.1	31.1	57.6	45.7

Data Source: NMDS

**Table 87: Age standardised rates for angioplasty, by ethnicity, for the Auckland DHB & NZ pops., 1999/2000**

	Other peoples	Maori	Pacific peoples	Total
Auckland DHB	60.9	20.2	30.3	57.1
NZ	68.0	31.0	20.3	64.7

Data Source: NMDS

### *Diabetes*

Table 88 shows that the mortality rates for diabetes among Maori in the Auckland DHB zone is low compared to Maori in the New Zealand population.

**Table 88: Age standardised mortality rates for diabetes, by ethnicity, for the Auckland regional DHBs & NZ pops., 1996-1998**

	Other peoples	Maori	Pacific peoples	Total
Waitemata DHB	9.5	20.5	71.0	11.0
Auckland DHB	9.7	52.0	76.2	14.9
C-M DHB	10.1	135.0	79.5	20.8
NZ	12.9	70.3	72.1	17.3

Data Source: NZMDS

Tables 89 and 90 show that there are large differences in the rates of hospitalization for diabetes when additional diagnoses are included in analyses. The tables also show that Maori in the Auckland DHB zone have lower rates of hospitalization than Maori in the New Zealand population.

**Table 89: Age standardised hospitalization rates for diabetes, by ethnicity, for the Auckland regional DHBs & NZ pops., 1999/2000 (primary diagnosis only)**

	Other peoples	Maori	Pacific peoples	Total
Waitemata DHB	57.4	137.8	238.7	64.8
Auckland DHB	56.9	126.1	248.4	73.6
C-M DHB	71.4	252.3	260.2	99.2
NZ	76.8	276.8	249.1	92.8

Data Source: NMDS

**Table 90: Age standardised hospitalization rates for diabetes, by ethnicity, for the Auckland regional DHBs & NZ pops., 1999/2000 (2<sup>nd</sup> & 3<sup>rd</sup> diagnosis)**

	Other peoples	Maori	Pacific peoples	Total
Waitemata DHB	370.5	865.7	1765.6	429.3
Auckland DHB	389.4	945.8	2075.2	535.7
C-M DHB	489.7	2047.6	2702.4	796.9
NZ	445.4	1734.9	2013.0	578.3

Data Source: NMDS

## Discussion

Maori are over-represented in mortality and morbidity statistics and in the most deprived deciles of the Auckland DHB zone. They die earlier than any other ethnic group in the zone, at around 67 years for males and 73 years for females (life expectancy at birth, 1996).

The most common causes of death are cancer and heart disease. Many Maori die and become ill from conditions that are largely preventable through health sector intervention, especially at the primary care level. Therefore, there is a major opportunity to improve the health status of the Auckland DHB Maori population by reducing avoidable morbidity and mortality and addressing health issues such as heart disease, lung cancer and injury from motor vehicle crashes.

Major causes of death vary according to age group, with the major causes of death among young Maori aged 15-24 years in the Auckland DHB being death from motor vehicle crashes, suicide and cancer. The leading causes of death among Maori aged 25-64 years are cancer, ischaemic heart disease, circulatory system disorders, and chronic obstructive respiratory disease (CORD). Older Maori adults (65yrs+) are fewer in number than among other ethnic groups, and they die from disorders such as cancer, ischaemic heart disease, stroke and circulatory system disorders. The data suggests that Maori die at younger ages than non-Maori and have higher rates of disease than other ethnic groups.

Many Maori die from diseases with modifiable causes. For instance, a large proportion of Maori die from smoking related conditions and conditions related to diet and exercise. However, the underlying causes of death may be a nexus of biological, environmental and social factors that require modification.

Around 25 percent of hospitalisations for Maori could be avoided through primary health care prevention. The types of conditions that could be addressed include

cellulitis, ear nose and throat infections, angina and respiratory infections. This is especially true for Maori children for whom almost sixty percent of hospital discharges appear to be for avoidable conditions.

It appears that Maori do not get adequate access to certain tertiary services, for example angioplasty procedures, where despite having a higher incidence of heart disease than non-Maori, they have lower discharge rates for these procedures (21 per 100,000 compared to 61 per 100,000). One reason that might explain this trend is that Maori are more likely to have co-morbidities that make them 'high-risk' patients for such procedures. Alternatively, they may be more likely to present to a health professional when the condition they suffer has advanced to a stage that qualifies them as 'high-risk'.

High infant and perinatal mortality rates are key areas of concern to the Auckland DHB. This assessment of health need does not include analysis at the Census Area Unit (CAU) level, but it is expected that these deaths correlate strongly with low socio-economic status.

#### Key Issues:

- ❑ Auckland DHB Maori are over-represented in mortality and morbidity statistics;
- ❑ Auckland DHB Maori die earlier than any other ethnic group;
- ❑ The most common causes of death among Maori in the Auckland DHB are cancer and heart disease;
- ❑ Auckland DHB Maori die and become ill from conditions that are largely preventable through primary care;
- ❑ The major causes of death among Maori in the Auckland DHB zone vary according to age group;
- ❑ Many of the leading causes of death among Maori in the Auckland DHB zone are modifiable;
- ❑ Maori patients do not appear to access certain tertiary services at the same rates as other ethnic groups;
- ❑ Maori have high perinatal & infant mortality rates in the ADHB zone.

### **3.02 Pacific Health**

#### Services Available

Pacific peoples access mainstream services in the community. In addition, there are a number of Pacific health service providers in the Auckland DHB zone. These service providers and the services they provide are listed and profiled throughout the various sections of this report.

## Services Issues

The consultation process that led to the development of the 'Programmes of Actions' document, produced by the Ministry of Pacific Island Affairs in February 2000, found that too many Pacific people were not accessing the health sector early enough to prevent the onset of serious ill-health. The main reasons for not accessing health services were identified as follows:

- ❑ Cost and affordability of GP consultations;
- ❑ Lack of transportation;
- ❑ Language barriers;
- ❑ Lack of understanding and empathy of Pacific realities, values and cultures by mainstream providers.

The need to develop the Pacific people's health workforce has been identified as a major priority for Pacific Health in New Zealand. More locally available Pacific primary healthcare and preventive services are required. In addition, there is a need for more Pacific health information and research and Pacific people need access to information about services and how to access services.

## Demographics

There were about 42,000 Pacific people living in the Auckland DHB zone at the time of Census in 1996. Pacific people represented approximately 12 percent of the Auckland DHB population and more than fifty percent of Pacific peoples were under the age of 25 years in 1996. In addition, approximately 28 percent of the Pacific population in 1996 lived in the more deprived areas of the Auckland DHB zone (NZDEP96, deciles 8-10).

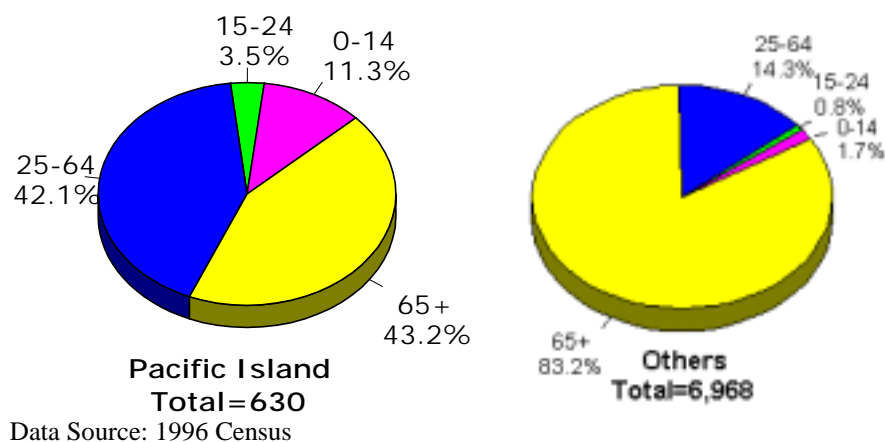
See section on demographics for further details.

## Health Status of Pacific Peoples in the Community

Figure 80 shows the number of Pacific and 'Other' (non-Maori, non-Pacific) Auckland DHB residents that died between January 1996 and December 1998. There were 630 Pacific people that died during this period. About 57 percent of Pacific people died before they reached the age of 65 years, compared with only 17 percent of 'Others', or non-Maori, non-Pacific peoples.

Cancer and heart disease were the leading causes of death for both Pacific peoples and the non-Maori, non-Pacific population, during this period (Table 91). Diseases of the circulatory system and injury were also major causes of death for Pacific people in the Auckland DHB. Lung cancer was the leading cause (Table 92) of cancer death for Pacific people (21.1% of all cancer deaths), but was the second leading cause of cancer death in the non-Maori, non-Pacific population (15.6% of all cancer deaths).

**Figure 80: Number of deaths by age group for Auckland DHB, Jan 96-Dec 98**



**Table 91: Top ten causes of death, by ethnicity, for the Auckland DHB pop., Jan 96-Dec 98**

Pacific People	Number	%	Non Maori Non Pacific	Number	%
Cancer	142	22.5	Cancer	1795	25.8
Ischaemic heart disease	97	15.4	Ischaemic heart disease	1664	23.9
Circulatory sys	57	9.0	Stroke	761	10.9
Injury and poisoning	54	8.6	Circulatory sys	505	7.2
Stroke	44	7.0	CORD	408	5.9
Diabetes	38	6.0	Injury and poisoning	333	4.8
Condition originate in perinatal	34	5.4	Pneumonia Influenza	301	4.3
CORD	31	4.9	Mental disorder	247	3.5
Digestive sys	20	3.2	Digestive sys	216	3.1
Pneumonia Influenza	16	2.5	Nervous Sys	135	1.9

Data Source: NZMDS

**Table 92: Top five leading causes of death, by ethnicity & cancer type, for the Auckland DHB pop., Jan 96-Dec 98**

Pacific People	Number	%	Non Maori Non Pacific	Number	%
Lung cancer	30	21.1	Large bowel cancer	282	15.7
Leukaemias	18	12.7	Lung cancer	280	15.6
Breast cancer	17	12.0	Leukaemias	177	9.9
Large bowel cancer	14	9.9	Breast cancer	138	7.7
Stomach Cancer	10	7.0	Prostate cancer	115	6.4

Data Source: NZMDS

### *Child (0-14yrs) Mortality*

Table 93 shows the top five causes of death for Pacific children and non-Maori, non-Pacific children. The same causes of death (condition originating in perinatal period and birth defects) were the top two leading causes of death for both Pacific and non-Maori, non-Pacific children. However, the percentage of Pacific children dying from conditions originating in the perinatal period was ten percent higher than the percentage for non-Maori, non-Pacific children.

**Table 93: Top five leading causes of death for children (0-14), by ethnicity, for Auckland DHB, Jan 96-Dec 98**

Pacific People	Number	%	Non Maori Non Pacific	Number	%
Condition originate in perinatal	34	47.9	Condition originate in perinatal	45	37.8
Birth defects	11	15.5	Birth defects	28	23.5
Injury & poisoning	6	8.5	Cancer	11	9.2
Cot Death	5	7.0	Injury & poisoning	11	9.2
Cancer	3	4.2	Cot Death	8	6.7

Data Source: NZMDS

The Auckland DHB Pacific perinatal mortality rate (deaths within the first seven days of life, rate for 1,000 births) for the period January 1996 to December 1998 was 10.2 per 1,000 births. This rate is lower than the rate for Maori (10.9/1,000) in the Auckland DHB population and lower than the all New Zealand Pacific rate of (10.4/1,000 births). However, the rate is very high compared to the Auckland DHB non-Maori, non-Pacific population (5.6/1,000 births).

The Auckland DHB Pacific infant mortality rate (deaths within the first year of life, rate for 1,000 births) for the period January 1996 to December 1998 was 15.5 per 1,000 births. This rate is lower than the rate for Maori (15.9/1,000) in the Auckland DHB population but the same for the all New Zealand Pacific rate. However, the rate is very high compared to the Auckland DHB non-Maori, non-Pacific population (7.3/1,000 births).

Table 67 (see Maori Health section) shows that Pacific children in the Auckland DHB had the highest age-specific mortality rates of all ethnic groups in the zone.

#### *Young People's Mortality*

Table 94 shows the top five causes of death for young Pacific and young non-Maori, non-Pacific residents of the Auckland DHB zone, between January 1996 and December 1998. Suicide was the leading cause of death among young Pacific people in the zone, accounting for 36.4 percent of young Pacific people's deaths.

**Table 94: Top five leading causes of death for young people (15-24yrs), by ethnicity, for the Auckland DHB pop., Jan 96-Dec 98**

Pacific People	Number	%	Non Maori Non Pacific	Number	%
Suicide	8	36.4	Motor vehicle crashes	17	30.9
Other injury	4	18.2	Suicide	15	27.3
Motor vehicle crashes	3	13.6	Other injury	9	16.4
Cancer	2	9.1	Cancer	4	7.3
Mental disorder	0	0.0	Mental disorder	3	5.5

Data Source: NZMDS

#### *Adult Mortality (25-64yrs)*

Forty two percent of all 630 Pacific people's deaths (for the period January 1996 to December 1998) occurred among Pacific people aged 25-64 years. In comparison, only 14 percent of non-Maori, non-Pacific deaths occurred among people in this age group. Table 95 shows the top five causes of death for Pacific and non-Maori, non-Pacific adults living in the Auckland DHB zone. Both cancer and ischaemic heart

disease were the top two causes of death in these populations for the period January 1996 to December 1998. Note that diabetes is a major cause of death for Pacific people in this age group.

**Table 95: Top five leading causes of death for adults (25-64yrs), by ethnicity, for the Auckland DHB pop., Jan 96-Dec 98**

Pacific People	Number	%	Non Maori Non Pacific	Number	%
Cancer	70	26.4	Cancer	415	41.5
Ischaemic heart disease	44	16.6	Ischaemic heart disease	145	14.5
Circulatory sys	28	10.6	Suicide	85	8.5
Stroke	20	7.5	Circulatory sys	49	4.9
Diabetes	17	6.4	Other injury	43	4.3

Data Source: NZMDS

#### *Older Adult Mortality (65yrs+)*

Table 96 shows the top five causes of death for older adult Pacific people, compared with older non-Maori, non-Pacific adults in the Auckland DHB population. The percentage of Pacific people who died of cancer was higher than for non-Maori, non-Pacific older adults.

**Table 96: Top five leading causes of death for older adults (65yrs+), by ethnicity, for the Auckland DHB pop., Jan 96-Dec 98**

Pacific People	Number	%	Non Maori Non Pacific	Number	%
Cancer	67	24.6	Ischaemic heart disease	1519	26.2
Ischaemic heart disease	51	18.8	Cancer	1365	23.6
Circulatory sys	27	9.9	Stroke	718	12.4
Stroke	24	8.8	Circulatory sys	452	7.8
Diabetes	21	7.7	CORD	384	6.6

Data Source: NZMDS

#### *Potentially Avoidable Mortality*

Approximately seventy-four percent of Pacific people's deaths in the Auckland DHB were potentially avoidable. Table 73 in the Maori Health section of the report shows percentages of potentially avoidable deaths, as a % of total deaths, for each age group in the DHB zone.

**Table 97: Top ten potentially avoidable causes of death for Pacific peoples, in the Auckland DHB pop., 1996-1998**

	Pacific	%
15 Ischaemic heart disease	69	19.0
32 Diabetes	27	7.4
16 Stroke	27	7.4
10 Lung cancer	25	6.9
27 Suicide	18	4.9
20 Motor vehicle crashes	17	4.7
11 Breast cancer	16	4.4
14 CORD	15	4.1
56 Other perinatal conditions	15	4.1
08 Colo-rectal cancer	13	3.6

Data Source: NZMDS

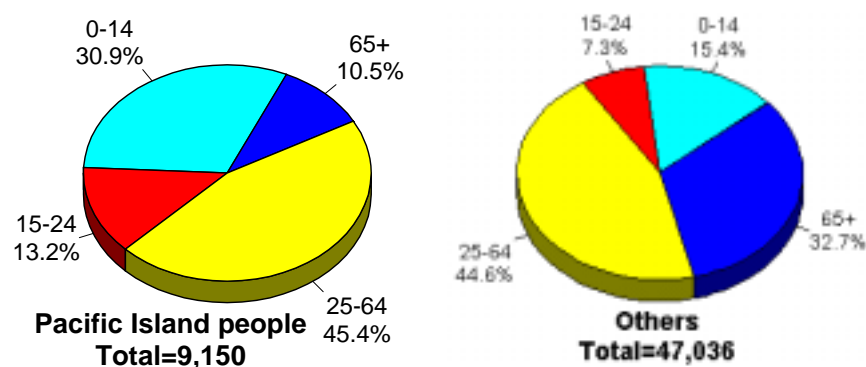
The top ten potentially avoidable mortality diagnoses are provided in Table 97. As can be seen, ischaemic heart disease is the leading cause of potentially avoidable death among Pacific peoples in the Auckland DHB zone. This is followed closely by diabetes, which accounts for seven percent of all Pacific people's potentially avoidable deaths in the Auckland DHB zone.

## Service Utilisation

This section contains hospital utilization data only. This was the only service utilization data available at the time of writing that could be analysed by ethnicity.

There were 9,150 Pacific people living in the Auckland DHB zone that were discharged from public hospitals between July 1999 and June 2000. About 44 percent of these discharges were for young people aged under 25 years, compared with only 22 percent for non-Maori, non-Pacific people under 25 years of age (see Figure 81).

**Figure 81: Public hospital discharges, by age group & ethnicity, for the Auckland DHB, July 1999-June 2000**



Data Source: NMDS

Table 98 shows the top ten diagnoses for both Pacific and non-Maori, non-Pacific peoples between July 1999 and June 2000. As can be seen, 23 percent of all public hospital discharges for Pacific peoples were for pregnancy-related conditions, compared to only 14 percent for non-Maori, non-Pacific peoples.

**Table 98: Top ten public hospital discharge diagnoses, by ethnicity, for the Auckland DHB pop., July 1999-June 2000**

Pacific People		Number	%	Non Maori Non Pacific		Number	%
Pregnancy related		2,091	22.9	Pregnancy related		6746	14.3
Digestive sys		560	6.1	Digestive sys		3312	7.0
Nervous Sys		536	5.9	Cancer		2960	6.3
Condition originate in perinatal		536	5.9	Genitourinary sys		2631	5.6
Genitourinary sys		472	5.2	Circulatory sys		2388	5.1
Respiratory sys		453	5.0	Nervous Sys		2271	4.8
Other injury		438	4.8	Other injury		2054	4.4
Skin		354	3.9	Ischaemic		1797	3.8
Pneumonia Influenza		305	3.3	Musculoskeletal sys		1747	3.7
Infectious & Parasitic		272	3.0	Motor vehicle crashes		1735	3.7

Data Source: NMDS

Tables 99 to 102 show the top ten Pacific public hospital discharge diagnoses by DRG and age group. Note that almost forty percent of all Pacific hospitalisations were for children 0-14 years of age.

**Table 99: Top ten public hospital discharge diagnoses, by DRG cluster for Pacific children (0-14yrs), living in the Auckland DHB zone, July 1999-June 2000**

DRG Descriptions (0-14)	Pacific	%
ENT	238	8.3
Whooping cough and acute bronchiolitis	196	6.9
Respiratory infections or inflammations	186	6.5
Cellulitis	117	4.1
Bronchitis and asthma	84	2.9
Fracture;sprain;strain	59	2.1
Gastroenteritis /Other digestive system diagnoses	58	2.0
Otitis media and URI, Laryngotracheitis,Nasal trauma and deformity	57	2.0
Injury, Trauma to the skin; subcutaneous tissue and breast	47	1.6
Viral illness and fever	43	1.5

Data Source: NMDS

**Table 100: Top ten public hospital discharge diagnoses, by DRG cluster for young Pacific (15-24yrs) people, living in the Auckland DHB zone, July 1999-June 2000**

DRG Descriptions (15-24)	Pacific	%
Cellulitis	40	3.3
Abortion	37	3.1
Postpartum and post abortion diagnoses	31	2.6
Menstrual; oth female reproductive system disorders	27	2.2
Hand or wrist procedures	24	2.0
ENT	22	1.8
Threatened abortion	21	1.7
Abdominal pain or mesenteric adenitis	20	1.7
Fracture; sprain; strain	20	1.7
Kidney and urinary tract infections	19	1.6

Note: excludes delivery and neonatal

Data Source: NMDS

**Table 101: Top ten public hospital discharge diagnoses, by DRG cluster for Pacific adults (25-64yrs), living in the Auckland DHB zone, July 1999-June 2000**

DRG Descriptions (25-64)	Pacific	%
Abortion	129	3.1
Chest pain/angina	108	2.6
Cellulitis	96	2.3
Pelvic evisceration and radical vulvectomy	92	2.2
Postpartum and post abortion diagnoses	86	2.0
Respiratory infections or inflammations	75	1.8
Respiratory signs and symptoms	69	1.6
Infections of the female reproductive system	63	1.5
Gastroscopy	60	1.4
Oesophagitis; gastroenteritis	55	1.3

Note: excludes delivery and neonatal

Data Source: NMDS

**Table 102: Top ten public hospital discharge diagnoses, by DRG cluster for older Pacific adults (65yrs+), living in the Auckland DHB zone, July 1999-June 2000**

DRG Descriptions (65+)	Pacific	%
Chronic obstructive airways disease/Interstitial lung disease	77	7.8
Lens procedures	60	6.1
Respiratory infections or inflammations	54	5.5
Heart failure and shock	48	4.9
Cerebrovascular disorders	42	4.3
Chest pain/angina	42	4.3
Circulatory disorder	36	3.6
Malignancy/neoplasms	32	3.2
Oesophagitis; gastroenteritis	32	3.2
Rehabilitation/Aftercare musculoskeletal system	32	3.2

Data Source: NMDS

### *Potentially Avoidable Hospitalisations*

Table 82 (see section on Maori Health) shows the percentage of potentially avoidable discharges to total discharges, by age group and ethnicity for the 1999 to 2000 financial year. More than sixty percent of discharges among Pacific children in the Auckland DHB zone were avoidable.

Table 103 shows the top ten potentially avoidable discharge diagnoses for Pacific peoples in the Auckland DHB zone.

**Table 103: Top ten potentially avoidable causes of hospitalization for Pacific peoples, in the Auckland DHB pop., 1999/2000**

PAH	Pacific	%
Respiratory infections	332	14.1
Cellulitis	286	12.1
ENT infections	207	8.8
Angina	176	7.5
Dental conditions	142	6.0
Asthma	140	5.9
Gastroenteritis	123	5.2
Road Traffic Injury	94	4.0
Kidney Urinary infection	86	3.6
CORD	82	3.5

Data Source: NMDS

## Disease in the Community

### *Cancer*

Age standardised mortality rates from all causes of cancer are presented in Table 64 (see cancer section). Pacific mortality rates from cancer were second only to the rates for Maori in the Auckland DHB population, between January 1996 and December 1998. Rates among Pacific males were of particular concern.

### *Lung cancer*

Age standardised mortality rates from lung cancer are presented in Table 71 (see cancer section), for the period January 1996 and December 1998. Pacific lung cancer

mortality rates in the Auckland DHB were second only to the rates among Maori. Pacific males, however, had much higher mortality rates from lung cancer than Pacific females in the Auckland DHB population.

One explanation for the higher rate of lung cancer for Pacific males was the higher percentage that reported smoking in the 1996 Census (Table 104).

**Table 104: Smoking rates (% pop.) among Pacific peoples (15yrs+), by gender, in the Auckland DHB & NZ pops., 1996**

% Pacific people Smoking	Male	Female	Total
Auckland DHB	32.2	21.1	39.1
NZ	32.2	23.1	41.4

Data Source: Census 1996

### *Cardiovascular disease*

The mortality rate for ischaemic heart disease among Pacific peoples in the Auckland DHB population was second only to the rate for Maori in the population (see Figure 71 in cardiovascular disease section) and the rate in the Auckland DHB was lower than the rate for Pacific peoples nation-wide.

In contrast with heart disease, Pacific people in the Auckland DHB had the highest mortality rate for stroke, compared to other ethnic groups. In addition, the mortality rate for Pacific peoples in the Auckland DHB zone exceeded the rate for the all New Zealand Pacific population (see Figure 76 in cardiovascular disease section).

Table 85 in the Maori Health section shows that the Auckland DHB Pacific people's mortality rate for rheumatic heart disease is high, compared to other ethnic groups in the zone. It was only exceeded by the rate for Maori.

Although cardiovascular disease was one of the major causes of death among Pacific peoples, Table 87 in the Maori Health section of this report shows that the age-standardised discharge rate for angioplasty operations for Pacific Peoples was low compared to rates for other ethnic groups, although Maori had a slightly lower procedural rate.

### *Suicide*

Table 105 shows that the mortality rate for suicide among Pacific people within the Auckland DHB zone was very high during the period 1996 to 1998, compared to Pacific population rates from other DHBs and the New Zealand Pacific population. Approximately 77 percent of these deaths occurred in the 15-39 years age range.

**Table 105: Age standardised mortality rate for Suicide, 1996-1998**

	Other peoples	Maori	Pacific peoples	Total
Waitemata DHB	14.4	16.1	4.6	14.5
Auckland DHB	12.6	11.7	13.4	13.0
C-M DHB	12.4	15.3	7.9	13.0
NZ	14.7	18.5	9.0	15.3

Data Source: NZMDS

In contrast to the mortality rates, Pacific people's hospitalization rates (Table 106) for suicide were the lower than the rates for Pacific populations from other DHBs and the New Zealand Pacific population.

**Table 106: Age standardised public hospital discharge rate for Suicide, 1999/2000**

	Others	Maori	PI	Total
Waitemata DHB	90.3	80.5	75.6	90.4
Auckland DHB	74.3	66.0	66.5	73.8
C-M DHB	97.1	138.7	147.0	114.2
NZ	83.9	109.3	102.6	87.9

Data Source: NZMDS

### *Diabetes*

Table 88 in the Maori Health section shows mortality rates for diabetes among Pacific peoples, compared to other ethnic groups in the Auckland DHB zone and the New Zealand population. The diabetes mortality rate for Pacific peoples in the Auckland DHB zone is high in comparison to the rates for other ethnic groups in the zone.

Tables 89 and 90 show in the Maori Health section show that there are large differences in the rates of hospitalization for diabetes when additional diagnoses are included in analyses. The tables also show that Pacific peoples rates of hospitalization are more than twice that of Maori in the Auckland DHB zone, when second and third diagnoses are included in the analyses.

### Discussion

Pacific people are over-represented in mortality and morbidity statistics for the Auckland DHB zone. Like Maori, Pacific people die earlier than people from other ethnic groups in the zone, at around 69 years for males and 78 years for females (life expectancy at birth, 1996).

The most common causes of death are cancer and heart disease. Many Pacific peoples die and become ill from conditions that are largely preventable through health sector interventions, especially at the primary care level.

Major causes of death vary according to age group, with the major causes of death among young Pacific people aged 15-24 years in the Auckland DHB being death from suicide, injury and motor vehicle crashes. The leading causes of death among Pacific people aged 25-64 years are cancer, ischaemic heart disease and circulatory system disorders. Older Pacific adults (65yrs+) are fewer in number than among other ethnic groups, but they also die from disorders such as cancer, ischaemic heart disease and circulatory system disorders. The data suggests that Pacific people die at younger ages than non-Maori, non-Pacific people and have higher rates of disease compared to non-Maori, non-Pacific peoples.

Many Pacific people die from diseases with modifiable causes. For instance, a large proportion of Pacific people die from conditions related to poor diet and exercise. However, the underlying causes of death may be a nexus of biological, environmental and social factors that require modification.

Finally, the data suggests that a large proportion of hospitalisations for Pacific people could be avoided through primary health care prevention. However, there are significant barriers for many Pacific people that prevent early presentation to a primary health care provider.

## Key Issues:

- ❑ Auckland DHB Pacific people are over-represented in mortality and morbidity statistics;
- ❑ Auckland DHB Pacific people die early compared to most other ethnic groups;
- ❑ The most common causes of death among Pacific people in the Auckland DHB are cancer and heart disease;
- ❑ Auckland DHB Pacific people die and become ill from conditions that are largely preventable through primary care;
- ❑ There are significant barriers that prevent, or deter Pacific people from accessing primary care services at an early stage;
- ❑ The major causes of death among Pacific people in the Auckland DHB zone vary according to age group;
- ❑ Many of the leading causes of death among Pacific people in the Auckland DHB zone are modifiable;
- ❑ Need locally available Pacific primary healthcare and preventive services;
- ❑ Need to support and help develop Pacific provider workforce;
- ❑ Need more Pacific health information and research;
- ❑ Pacific people need access to information about services and how to access services.

### 3.03 Asian People's Health

#### Demographics

According to the 1996 Census, there were 160,602 Asian people in New Zealand. Asian people now make up 4.5% of all people in New Zealand. Most Asian people living in New Zealand live in the Auckland region (60.5). The ten cities with the largest numbers of Asian people in 1996 were:

**Table 107: Asian peoples populations, by New Zealand city, 1996**

City	Number of Asian
Auckland City	43,296
Manukau City	24,033
North Shore City	14,424
Wellington	13,569
Christchurch	12,597
Waitakere	10,017
Hamilton	5,343
Lower Hutt	5,019
Dunedin	4,215
Palmerston North	3,717

Data Source: Census 1996.

Approximately 27 percent of Asian people in New Zealand lived in the Auckland DHB zone in 1996. They comprised 12.5 percent of the population in the Auckland DHB. The largest ethnic group within the category of ‘Asian peoples’ were the Chinese. The second largest group were the Indian peoples (Table 108).

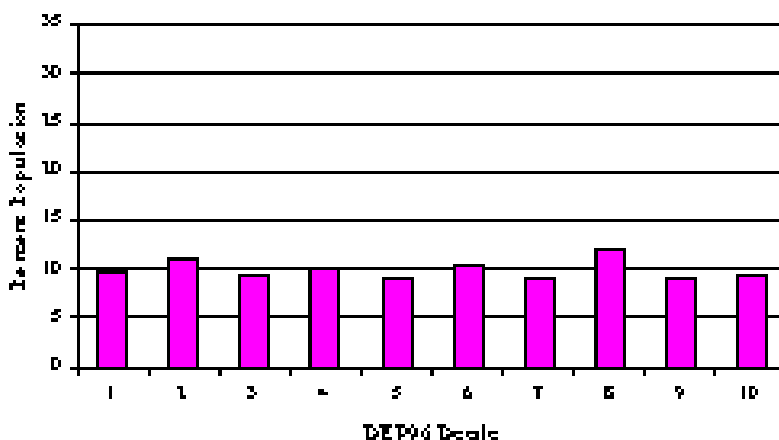
**Table 108: Asian peoples by ethnic group, 1996**

Asian Population	Auckland DHB Region
Filipino	1,584
Khmer	387
Vietnamese	495
Other South East Asia	1,893
Chinese	20,214
Indian	11,955
Sri Lankan	1,473
Japanese	1,749
Korean	2,079
Other Asian	1,452
Total	43,281

Data Source: Census 1996.

Figure 82 shows the distribution of the Auckland DHB Asian peoples population by NZDEP96 decile. The Asian peoples population was evenly distributed throughout all deciles.

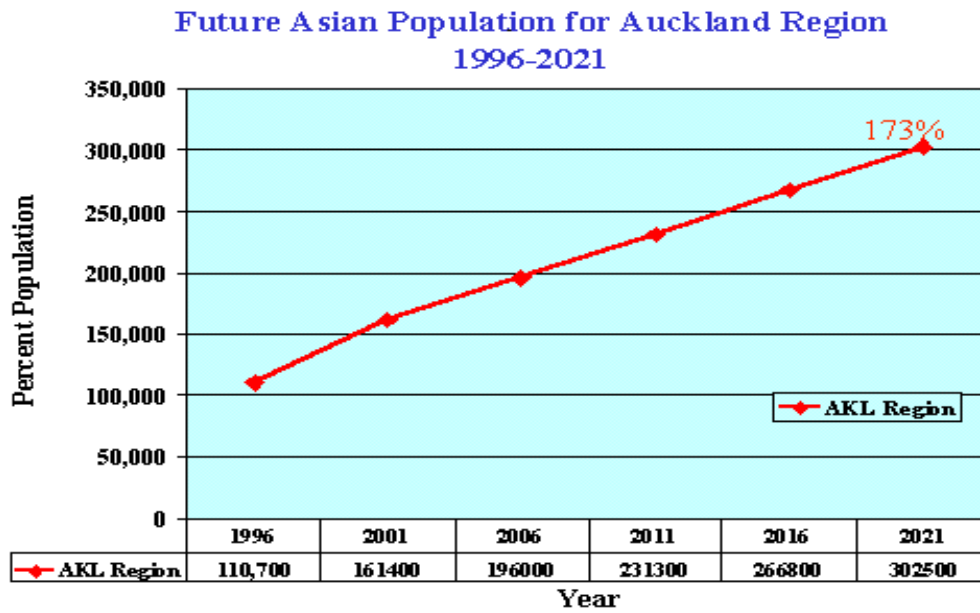
**Figure 82: Auckland DHB Asian peoples population by NZDEP96 decile, 1996**



Data Source: Census 1996.

Figure 83 shows the future growth of the Asian peoples population in the Auckland region over time. The Asian peoples population is expected to grow by 173 percent to 2021, or about 190,000, from 1996. Note that population projections for the Asian population by DHB is not available at this stage.

Figure 83: Population projection for Asian peoples population in the Auckland region, 1996-2021.

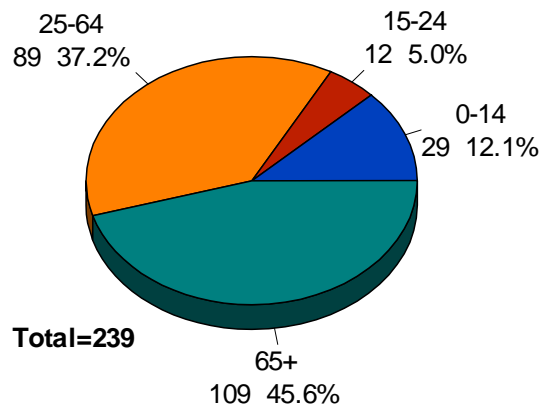


Data Source: Census 1996.

### Health Status of Asian peoples in the Community

There were 239 Auckland DHB Asian residents who died between January 1996 and December 1998. Almost 54 percent died before they reached 65 years of age.

Figure 84: Deaths among Asian peoples in the Auckland DHB zone, Jan 96-Dec 98



Data Source: NZMDS

Cancer, heart disease and stroke were the top three leading causes of death for Asian people residing in the Auckland DHB (Table 109). Lung, large bowel and stomach cancers were the leading causes of cancer death among the Asian people who died between 1996 and 1998.

**Table 109: Auckland DHB deaths among Asian peoples, by primary diagnoses (ICD-9-CMA), 1996-98**

	Deaths	%
Cancer	63	26.6
Ischaemic heart disease	44	18.6
Stroke	21	8.9
Condition originate in perinatal	14	5.9
Motor vehicle crashes	13	5.5
Birth defects	10	4.2
Diabetes	9	3.8
Injury and poisoning	7	3.0
Circulatory sys	9	3.8
Suicide	8	3.4
Digestive sys	8	3.4
Infectious & Parasitic	5	2.1
CORD	4	1.7
Others	22	9.3
Total deaths among Asian	239	100

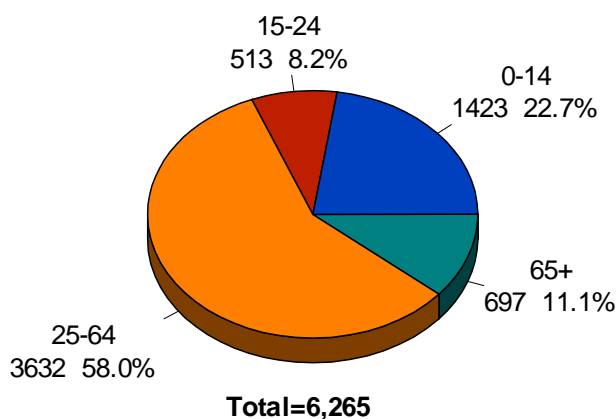
Data Source: NZMDS

### Service Utilization

This section contains hospital utilization data only. This was the only service utilization data available at the time of writing that could be analysed by ethnicity.

There were 6,265 Asian people who lived in Auckland DHB zone that were discharged from public hospitals between July 1999 and June 2000 (Figure 85). About 31 percent were young people aged under 25 years. Asian people's discharges comprised 10.5 percent of all the discharges for the Auckland DHB zone.

**Figure 85: Public hospital discharges for Asian peoples in the Auckland DHB zone, 1999/2000.**



Data Source: NZMDS

Table 110 shows the top ten discharges (by DRG) for Asian people living in the Auckland DHB zone, by age group. Note that the list excludes neonatal and delivery DRGs.

**Table 110: Top ten Auckland DHB public hospital discharges for Asian peoples, by DRG & age group, 1999/2000**

<b>Top ten DRGs for 0-14yrs</b>	<b>Discharges</b>	<b>%</b>
ENT	77	5.4
Dental extractions and restorations	57	4.0
Fracture;sprain;strain	32	2.2
Gastroenteritis /Other digestive system diagnoses	29	2.0
Bronchitis and asthma	27	1.9
Respiratory infections or inflammations	23	1.6
Hernia procedures	23	1.6
Injury, Trauma to the skin; subcutaneous tissue and breast	18	1.3
Red blood cell disorders	18	1.3
Eye procedures	17	1.2

<b>Top ten DRGs for 15-24yrs</b>	<b>Discharges</b>	<b>%</b>
Abdominal pain or mesenteric adenitis	23	4.5
Abortion	23	4.5
Red blood cell disorders	18	3.5
Poisoning or toxic effect of drugs	13	2.5
Oesophagitis; gastroenteritis	12	2.3
Infections of the female reproductive system	12	2.3
Respiratory infections or inflammations	11	2.1
Postpartum and post abortion diagnoses	11	2.1
ENT	10	1.9
Cellulitis	10	1.9

<b>Top ten DRGs for 25-64yrs</b>	<b>Discharges</b>	<b>%</b>
Abortion	192	5.3
Postpartum and post abortion diagnoses	109	3.0
Infections of the female reproductive system	105	2.9
Chest pain/angina	104	2.9
Uterine or adnexal procedure for non-malignancy	79	2.2
Threatened abortion	71	2.0
Abdominal pain or mesenteric adenitis	65	1.8
Respiratory infections or inflammations	57	1.6
ENT	56	1.5
Gastroscopy	55	1.5

<b>Top ten DRGs for 65yrs+</b>	<b>Discharges</b>	<b>%</b>
Lens procedures	53	7.6
Cerebrovascular disorders	32	4.6
Chest pain/angina	31	4.4
Malignancy /neoplasms	27	3.9
Gastroscopy	26	3.7
Rehabilitation/Aftercare musculoskeletal system and connective tissue	24	3.4
Circulatory disorder	23	3.3
Kidney and urinary tract diagnoses	23	3.3
Respiratory infections or inflammations	22	3.2
Chronic obstructive airways disease/Interstitial lung disease	22	3.2

Data Source: NZMDS

## Health Need Among Asian People in the Community

The high rates of Asian immigration to New Zealand began in 1995. Since then, a number of studies have been conducted to gain a greater understanding of the lives and cultures of Asian people. Two surveys were conducted within the Auckland region to identify the health and service needs of local Asian peoples. The document *'Survey on the needs of Asian people in Health services'* and the document *'Healthcare Needs of Asian People: Surveys of Asian People and Health Professionals in the North & West Auckland'* profile the findings of these two surveys. A summary of the main findings follows:

### ***Summary of "Survey on the needs of Asian People in Health Services"***

The Asian peoples population of the North Health region was surveyed to assess the health needs of the local Asian peoples population, their understanding of the New Zealand health system and what the HFA could do to improve access to health services by Asian people. Methods used in the survey were face-to-face interviews (1,137 Asian respondents) and in-depth interviews (35 doctors who provide services for Asian people).

- Forty percent of the Asian respondents came to New Zealand before 1992 and 48 percent came after 1992. The largest group (44%) came under the General category, followed by refugees (16%) while only five percent came under the Business immigration category;
- Thirty seven percent of respondents had a Bachelors degree as their highest educational qualification while only 3.1 percent, mostly refugees, had no educational qualifications;
- Just over half of the respondents were employed. Thais had the highest rates of employment and Taiwanese had the highest proportion of unemployed;
- About eighty percent of those who were employed were satisfied with their jobs. Mis-employment was given as the main reason for people being dissatisfied with their jobs;
- About 35 percent of respondents received income support, while about 38 percent had a community services card;
- Respondents considered health, family and employment as the most important things in life. About 65 percent of respondents thought they were healthy and about forty percent were confident they would know what to do if they, or a family member, faced a health crisis;
- Just over half the respondents said that language was the main barrier to their seeing doctors when they, or a family member, was sick and about two thirds of respondents thought it was very important that their GP speak their language;
- About twenty percent of respondents use traditional medicine, many because they thought traditional medicine worked better than western medicine;

- ❑ Asian health service providers reported that Asian peoples were quite health conscious and went to the doctor early for consultation when they felt unwell. Stress and depression were reported as common health problems;
- ❑ Generally, the health status of Asian peoples was better than for Maori or Pacific peoples, with the exception of refugees, whose health status was poor;
- ❑ Asian patients generally did not have a good understanding of how the health system is organised or of the role of GPs.

***Summary of “Healthcare Needs of Asian People: Surveys of Asian People and Health Professionals in the North & West Auckland”***

There were 3,500 questionnaires distributed in a variety of languages (English, Chinese, Korean and Hindi versions). A total of 1,334 questionnaires were returned (response rate of 38%). The questionnaire required responses to questions about the experiences and opinions of Asian families. The demographic profile and the major findings were derived from a total of 4,771 individuals.

Results from surveying Asian peoples:

- ❑ Sixty-three percent of respondents were Chinese or Taiwanese;
- ❑ Although the survey targeted the Waitemata District Health Board catchment area, residents living in other parts of Auckland were not excluded. Seventy-eight percent of respondents’ families resided in North and West Auckland, 16 percent lived in Central Auckland and six percent resided in South Auckland.
- ❑ Year of arrival: Sixty-five percent of respondents’ families arrived in New Zealand in the years 1995-1999, thus the outcomes of the survey reflect the health concerns of recent migrant groups.
- ❑ Living arrangements: Forty-seven percent of respondents lived with their spouse and children; 17 percent lived with their children, but not their spouse, indicating that they may be astronaut families; 18 percent lived with extended families, which is common among Asian cultures. The survey also indicated that ten percent of respondents lived alone. The respondents who lived alone and astronaut families would likely need more support from the health sector.
- ❑ Academic qualifications: Fifty-two percent of respondents had tertiary, or higher qualifications. Fifteen percent had high school qualifications and eight percent of respondents had no formal qualifications.
- ❑ English proficiency: Fifty-nine percent indicated they spoke relatively good English. However, 21.4 percent of respondents’ families had limited English, or were unable to speak English. This group would need support to overcome language barriers to health services.

- Experiences affecting family well being: Forty-two percent regarded employment as a negative experience. Unemployment and under-employment has been linked to increased rates of ill health;
- Social Support Systems: The majority of respondents indicated friends from their own culture as their most effective support system. Having support persons and having chances to improve English were also viewed by many respondents as useful;
- Strategies for addressing health problems: The majority of respondents indicated that when they encountered health problems they would visit general practitioners - a pattern similar to that reported in the National Health Survey;
- Health related risk factors: Among the four health related risk factors examined (smoking, alcohol, drug dependency, and gambling), smoking was of most concern to respondents. Chinese indicated more concern about drug dependency (27.6%) compared to Koreans (1.8%);
- Health problems encountered in the past: The majority of respondents had had a general illness (such as a cold), or dental problems in the three years prior to survey. Thirty-two percent of respondents had an allergic disease, 27 percent had arthritis, 26 percent had vision problems, and 25 percent had gastrointestinal diseases. Besides physical illness, 21.5 percent of respondents indicated that they had encountered depression, emotional or mental health problems. The reported prevalence of asthma, high blood pressure, diabetes and falls/injuries was similar to the patterns reported in the National Health Survey 1997;
- Health services used in the past: Eighty-six percent of respondents and their families indicated that they had visited a general practitioner in the three years prior to survey. This pattern was consistent with that of the New Zealand population. Thirty-three percent of respondents had accessed an accident and emergency service.
- Future service needs: The top five services identified were as follows:
  - Asian help line service;
  - Asian health professionals;
  - Directory/ pamphlets of health services;
  - Interpreters availability and;
  - Asian health support workers;
- Other support services required included: An Asian people's one-stop-shop, Asian support groups, an Asian people's home aide service, Asian youth support services, a transport support for Asian patients, and respite services provided by Asian health workers.

## Results from surveying health professionals:

- A total of 1,000 anonymous survey questionnaires were distributed and 300 questionnaires were returned (Response rate of 30%). Sixty-five percent of respondents originated from New Zealand;
- The 300 health professional respondents comprised of: general practitioners (15%), hospital service providers (32%), community health workers (39%) and mental health workers (7%). 87% worked within Auckland DHB's catchment area.
- Difficulties experienced by respondents: Ninety-six percent of respondents indicated language was a major barrier for them to provide services to Asian patients. This view was shared in each of the four service areas surveyed (general practitioner, public hospital services, community health & disabilities services, mental health services).
- Language barriers leading to miscommunication can result in ineffective or inappropriate treatment; prolonged stays within the health sector and miscommunication can cause frustration to patients. A majority of the health professionals considered Asians peoples' understanding of the health system as inadequate. Respondents also felt they were often ill-equipped to respond to Asian people's health needs;
- Future service needs for Asian peoples identified by health professionals: the services identified were similar to Asian respondents, with the addition of culturally sensitive health services. More than 84 percent of health professionals in the mental health services felt it was important to provide culturally sensitive health services to Asian peoples, a far higher percentage than that for health professionals in other areas of the sector;
- Support needed by health professionals: In order to equip health professionals with the knowledge and skills they required to provide culturally relevant practices to Asian patients, the following support needs were identified:
  - Information on Asian customs;
  - A list of health professionals in the related service;
  - Communication package in Asian languages;
  - Asian health support workers;
  - Training on cultural awareness;
  - Asian social workers/counsellors;
  - Researches on Asian health needs;

## Discussion

The surveys indicate a need for the recognition of Asian health in national policy and healthcare planning. Further, there is a need to recognize Asian people's health needs in other DHBs where a significant number of Asian peoples reside. There are calls for funding to enable mainstream services to provide support to Asian patients and guidelines and practice standards need to be established for training health professionals re:Asian people's cultures and perspectives.

There is also a need for ethnic specific demographic profiles to be included in national population analyses and a need to undertake further research.

#### Key Issues:

- ❑ Leading causes of death = cancer, IHD, stroke;
- ❑ Leading causes of cancer death = lung, large bowel, stomach;
- ❑ Asian help line service required;
- ❑ Need for more Asian health professionals;
- ❑ Directory/ pamphlets of health services required by Asian peoples;
- ❑ Language interpreters required;
- ❑ Need to equip health professionals with knowledge and skills to provide culturally relevant practices to Asian patients, they require support in the following areas - Information on Asian customs, a list of health professionals in related services, communication packages in Asian languages, access to Asian health support workers, training in cultural awareness, access to Asian social workers/counsellors, research on Asian health needs;
- ❑ Need for recognition of Asian healthcare needs in national policy and health planning;
- ❑ Need for ethnic specific demographic profiles to be included in national population analyses;
- ❑ Asian health needs should be recognized in other DHBs where a significant number of Asian people reside;
- ❑ Need to improve funding to enable mainstream services to provide support to Asian patients;
- ❑ Guidelines and practice standards required for training re:Asian cultural perspectives.