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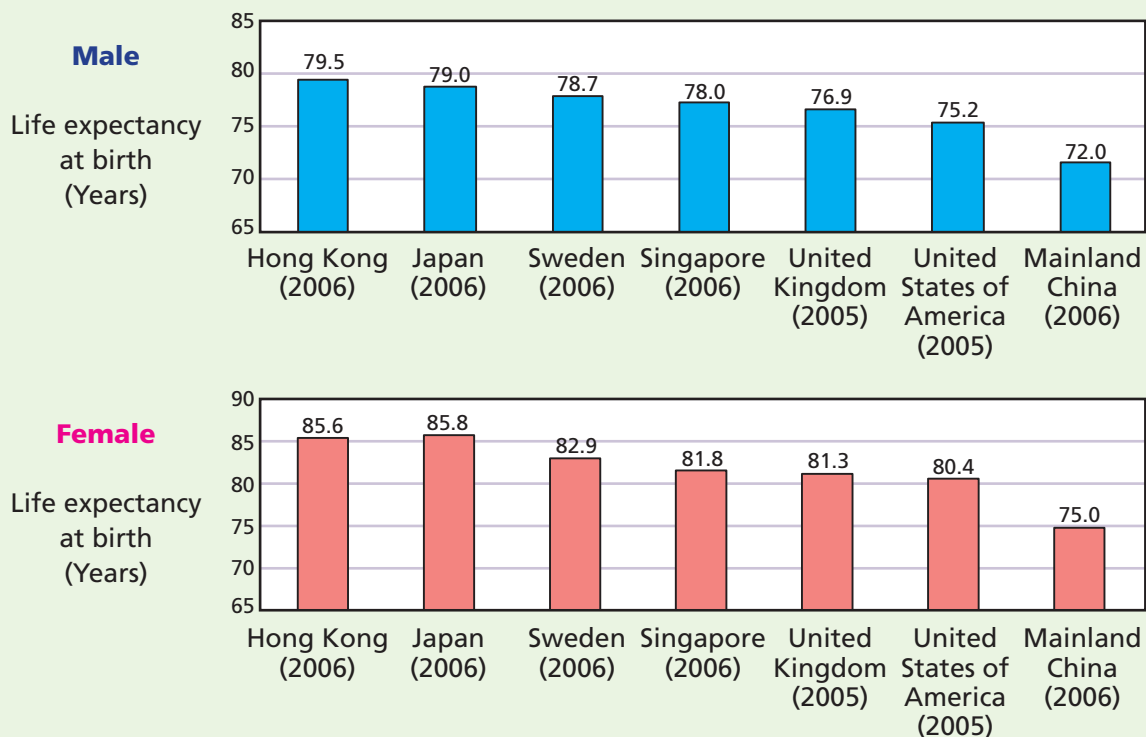


Overview of Local Situation



- 4.1 By comparing health indices of Hong Kong and other parts of the world, Hong Kong ranks among the best with high life expectancy at birth (Exhibit 24) and low rates of infant and maternal deaths.

Exhibit 24: Life expectancy at birth in Hong Kong and selected countries

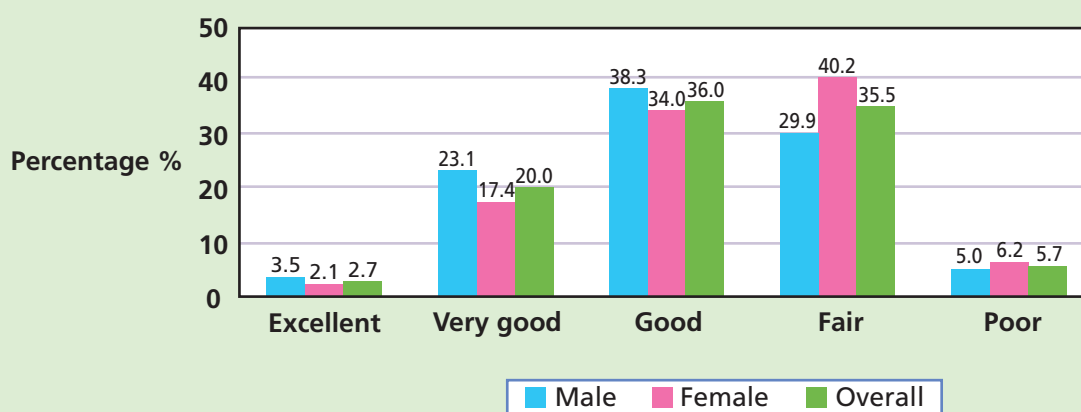


(Sources: Hong Kong – Census and Statistics Department; Japan – Statistical Handbook of Japan, <http://www.stat.go.jp/english/data/handbook/c02cont.htm> (accessed on 8 July 2008); Sweden – Website of Statistics Sweden, http://www.scb.se/templates/tableOrChart____25831.asp (accessed on 8 July 2008); Singapore – Handbook of Statistics Singapore 2007, <http://www.singstat.gov.sg/pubn/reference/yos/yos2007.pdf> (accessed on 8 July 2008); United Kingdom – Population Trends, Summer 2008, No.132, http://www.statistics.gov.uk/downloads/theme_population/Population_trends_132.pdf (accessed on 8 July 2008); United States of America – National Vital Statistics Reports. Vol 56, No.10, April 2008, http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_10.pdf (accessed on 8 July 2008); Mainland China – The World Health Report 2008, WHO, <http://www.who.int/whosis/whostat/2008/en/index.html> (accessed on 8 July 2008))

General Well-being

- 4.2 In 2003/2004, the DH collaborated with the Department of Community Medicine of the University of Hong Kong to conduct the Population Health Survey (PHS), to report on the health status, health behaviours and a number of other health related issues for the general population in Hong Kong. Over 7 000 randomly selected land-based non-institutionalised people who resided in Hong Kong aged 15 and over were face-to-face interviewed.¹
- 4.3 Results showed that about 60% of respondents rated their health as good or even excellent (Exhibit 25) and about 42% considered they had a good or very good quality of life; only a low percentage rated their health as "poor". However, nearly one in five (19.5%) of the elder population aged 75 and above rated their health status as poor. This may likely be attributed to a higher prevalence of diseases that come with ageing population.

Exhibit 25: Self-rated health status by sex



Note: People aged 15 and above

The percentage may not add up to 100% due to rounding

(Source: PHS 2003/2004)

- 4.4 With ageing population and changing risk profile of the population including widening social disparities (Exhibit 26) and changing environmental determinants of health, more people can be expected to suffer from chronic diseases in the future. Public health strategies are needed to combat the challenge.

Exhibit 26: Income and health

Health is strongly associated with the socio-economic environment. It tends to get worse in areas of poverty and among certain underprivileged groups or sub-populations, which are on the margin and outside of the dominant culture. Numerous reports show that health status improves at each step up the income hierarchy. There is a consistent finding that the less equitable the income distribution in a country, the less favourable the health outcome.

Prevalent Health Risk and Behaviour

- 4.5 Research has identified certain key behavioural and biomedical risk factors that are prevalent in our population. For example, the Behavioural Risk Factor Survey conducted in April 2007 showed that 15.9% of people aged 18-64 were daily smokers, of which the proportion of men was almost four times that of women; 18.9% were classified as having "low" level of physical activity. Less than one-fifth of people met the WHO's recommendation of having at least five servings of fruit and vegetables per day. In addition, 8.9% of people (14.6% for men and 3.8% of women) self-reported that they had binge drinking (i.e. drinking five or more glasses or cans of alcoholic drink on one occasion) in the month prior to the interview (Exhibit 27).² Including the risk factor of high body mass index ($BMI \geq 23$), a research in 2007 revealed that aggregation of risk factors was prevalent - 37.6% had one health risk, 35.8% had two risk factors, 2.8% had a combination of four risk factors and 0.7% presented with all five risk factors.³

Exhibit 27: Prevalence of major behavioural risk factors

	Overall	Male	Female
Daily smoking	15.9%	26.2%	6.8%
Low level of physical activity (IPAQ classification)	18.9%	16.6%	20.9%
Inadequate daily fruit and vegetable intake	81.1%	86.3%	76.6%
Binge drinking (in the past one month)	8.9%	14.6%	3.8%

Note: People aged 18-64 ; IPAQ-International Physical Activity Questionnaire

(Source: Behavioural Risk Factor Survey, April 2007)

- 4.6 Another survey, the Heart Health Survey, revealed that over one-third of people aged 15-84 in Hong Kong had central obesity defined by waist circumference (waist circumference greater than 90cm for males and greater than 80cm for females). Analysed by age, the proportion of people with central obesity increased with age.⁴ The survey also revealed that 33.3% had cholesterol concentrations at a borderline high and above level; 3.9% had high density lipoprotein cholesterol (HDL) concentrations at risk level; 22.9% had low density lipoprotein cholesterol (LDL) concentrations at borderline high and above level; 0.4% had very low density lipoprotein cholesterol (VLDL) concentrations at risk level; and 15.9% had triglyceride concentrations at borderline high and above level. In general, males had a higher prevalence of suboptimal cholesterol, HDL, LDL, VLDL and triglyceride concentrations than females. The proportion of people with suboptimal concentrations of these blood lipids increased with age. Furthermore, 7.5% had impaired glucose tolerance (IGT) or impaired fasting glucose (IFG) based on blood test during the survey, excluding those with diabetes mellitus (Exhibit 28). It is also pertinent to note that some people may have more than one risk factor.

Exhibit 28: Prevalence of major biomedical risk factors

	Overall	Male	Female
Central obesity	35.3%	30.2%	39.5%
Suboptimal cholesterol concentrations	33.3%	36.3%	30.8%
Suboptimal HDL concentrations	3.9%	6.8%	1.5%
Suboptimal LDL concentrations	22.9%	27.6%	19.1%
Suboptimal VLDL concentrations	0.4%	0.6%	0.1%
Suboptimal triglyceride concentrations	15.9%	22.1%	10.8%
IGT/IFG	7.5%	8.7%	6.4%

Note: People aged 15-84

(Source: Heart Health Survey 2004/05)

Prevalence of Chronic Health Condition

- 4.7 Diseases with high mortality may not be the most prevalent health problems in the community. Overweight and obesity (38.8%) and hypertension (27.2%) were the most prevalent self-reported doctor-diagnosed or detected chronic health conditions, whereas high blood cholesterol (8.4%) and diabetes mellitus (3.8%) were the most common types of chronic health conditions that were diagnosed by a western medical practitioner (Exhibit 29).¹

Exhibit 29: Prevalence of chronic health condition

	Overall	Male	Female
Overweight and obesity (BMI \geq 23)	38.8%	42.5%	35.9%
Hypertension	27.2%	30.1%	24.9%
High blood cholesterol	8.4%	8.4%	8.4%
Diabetes mellitus	3.8%	3.7%	3.8%
Asthma	1.9%	1.8%	1.9%
Coronary heart disease	1.6%	2.0%	1.2%
Chronic obstructive pulmonary disease	1.4%	1.9%	0.9%
Cancer	1.3%	1.0%	1.5%
Stroke	1.1%	1.5%	0.8%

Note: People aged 15 and above

(Source: PHS 2003/2004)

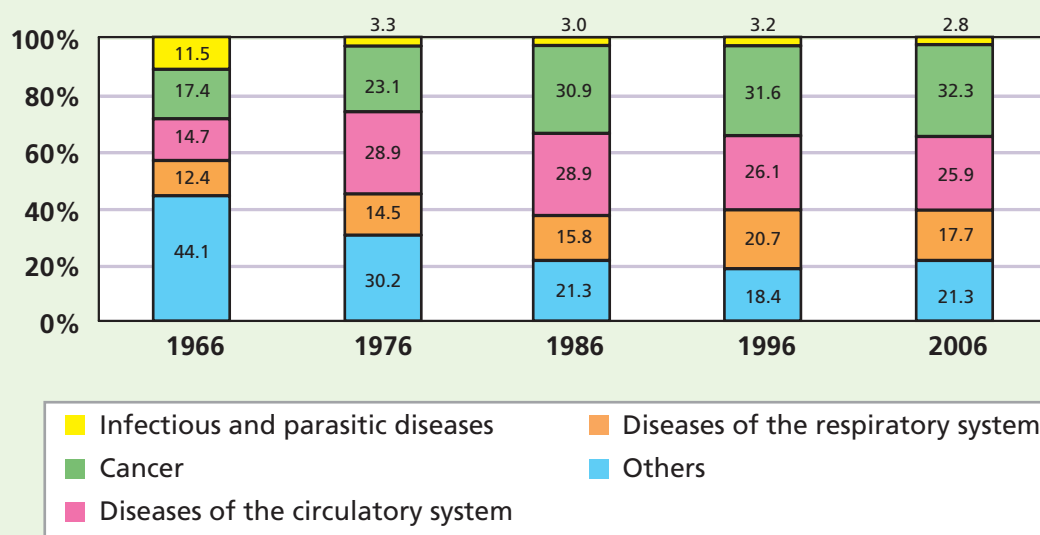
- 4.8 However, the true prevalence of these conditions could be underestimated as many people might have no symptom and were not aware of having such conditions. For diabetes mellitus, a local study had reported only 28% of men and 30% of women with diabetes mellitus knew that they had this condition. This means about 70% were unaware that they had diabetes mellitus and such observation applied in all age groups.⁵
- 4.9 Injuries is another major public health issue. The PHS found that 14.3% of people aged 15 and above had sustained an injury that was serious enough to limit their activities in the 12 months preceding the survey. While a significant greater proportion of males (17.4%) than females (11.7%) reported so, people in the 15-24 age group were more likely to report having an injury that was serious enough to limit their normal activities than people in the older age groups.¹

4. Overview of Local Situation

Major Disease Killer

4.10 Hong Kong, like many other countries, has gone through its epidemiological transition in mortality from communicable diseases to NCD. While the proportion of deaths due to infectious and parasitic diseases dropped from about 12% in 1966 to less than 3% in 2006, deaths attributed to NCD such as cancer, and diseases of the circulatory system (including diseases of heart and stroke) nearly doubled during the same period (Exhibit 30).

Exhibit 30: Proportionate death (as percentage of total registered deaths) of selected disease groups in years 1966, 1976, 1986, 1996 and 2006

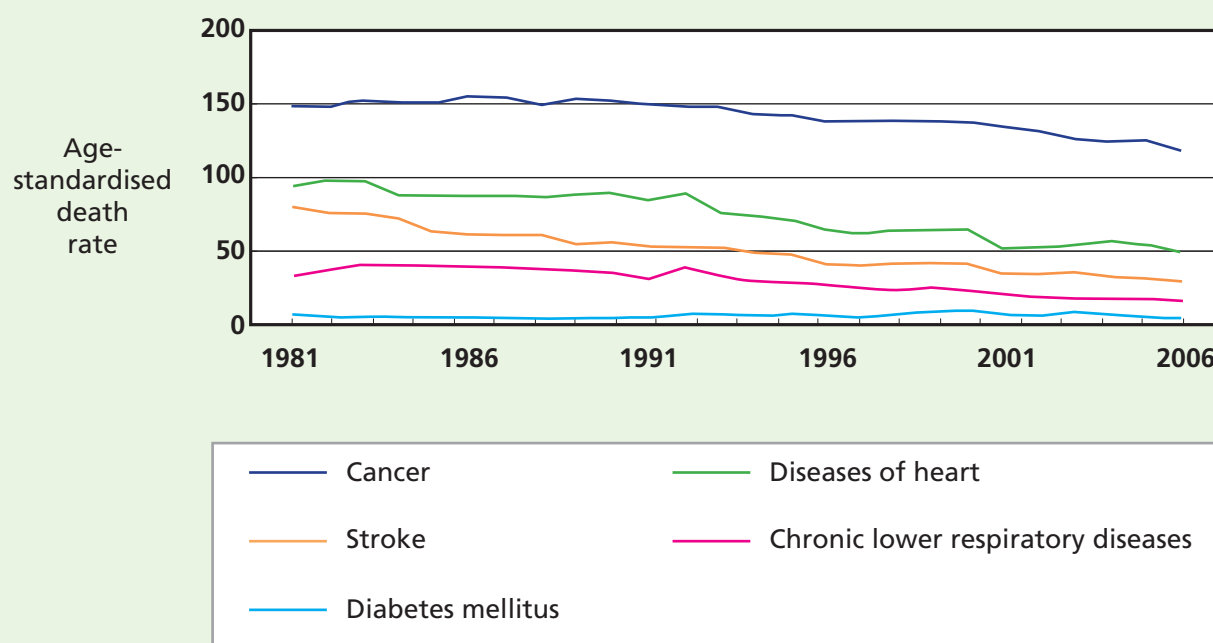


Note: The percentage may not add up to 100% due to rounding.

(Sources: Census and Statistics Department; DH)

- 4.11 The last two decades have also shown decreasing age-standardised death rates from the common killers including heart diseases, stroke and most cancers (Exhibit 31).

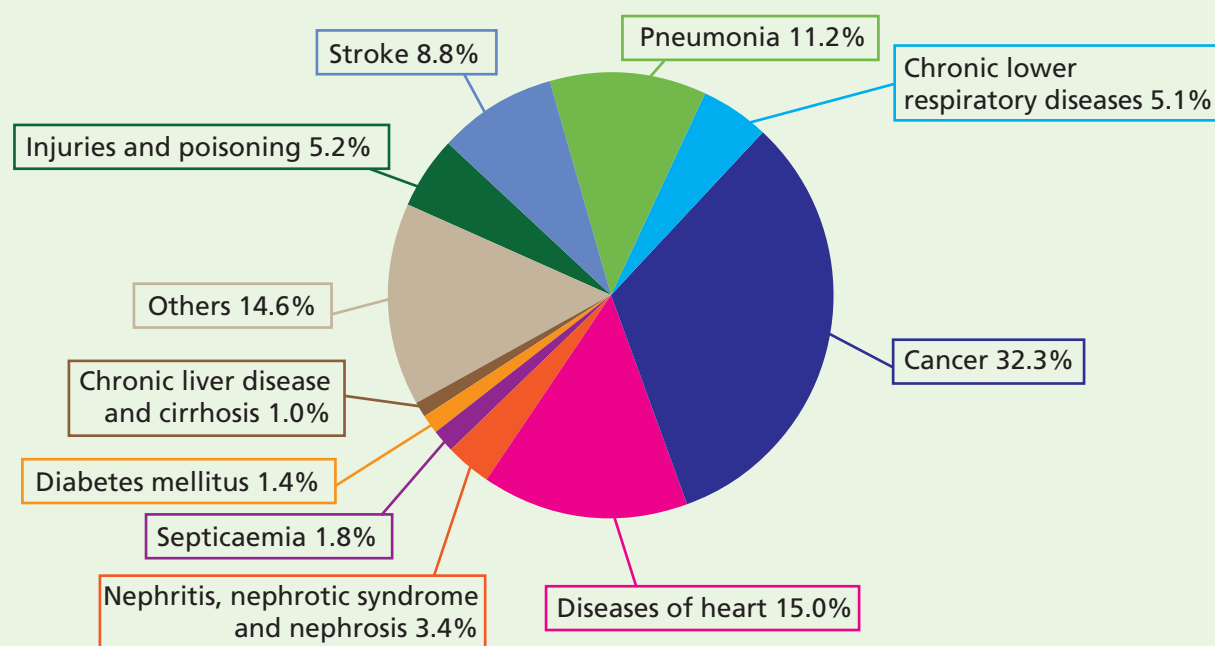
Exhibit 31: Age-standardised death rates (per 100 000 standard population) by selected diseases, 1981-2006



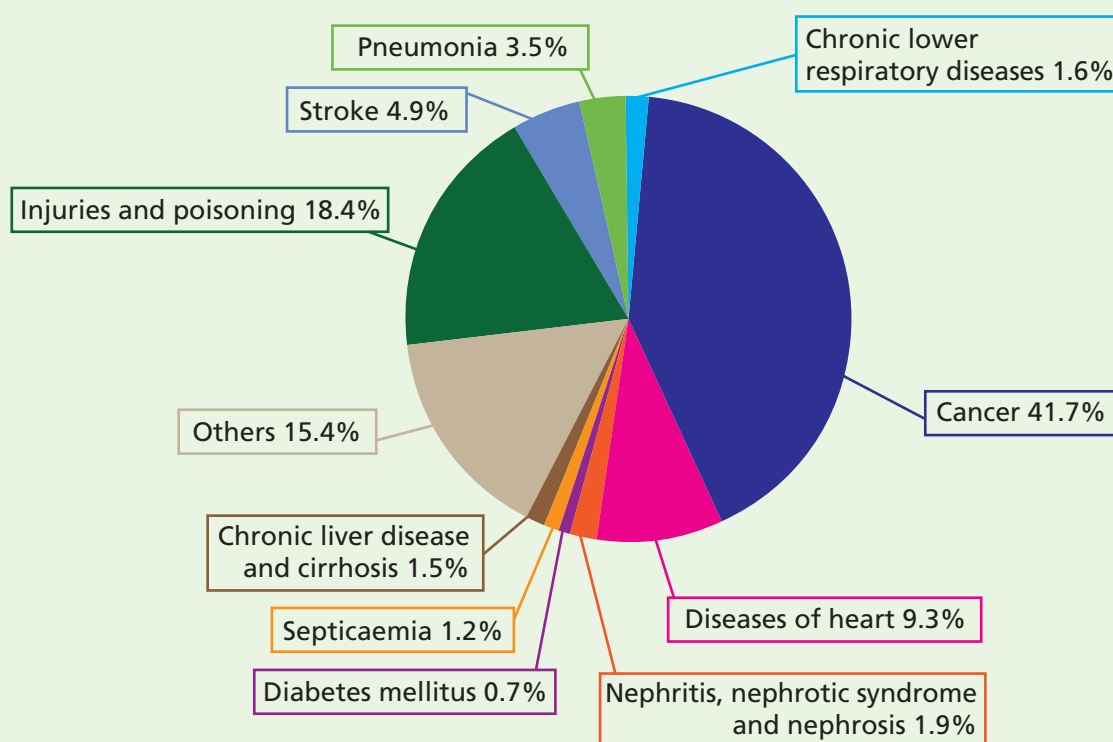
(Sources: Census and Statistics Department; DH)

- 4.12 Among 37 415 registered deaths in 2006, approximately 61% of them were attributed to four major but preventable NCD, including cancer (32.3%), diseases of heart (15.0%), stroke (8.8%) and chronic lower respiratory diseases (5.1%). In terms of PYLL at age 75 which provides a good estimate of the overall level of premature death in the population, cancer accounted for more than two-fifths of the total PYLL, whereas injuries and poisoning were responsible for about one-fifth of the total loss in 2006 (Exhibit 32).

Exhibit 32: Ten leading causes of death, 2006



Proportion of all registered deaths



Proportion of all PYLL at age 75

(Sources: Census and Statistics Department; DH)

Use of Hospital and Clinic Service

- 4.13 NCD have become the major causes of hospital admission in Hong Kong. Whereas at the beginning of the last century the major health problems were infectious diseases, the major challenge now is NCD.
- 4.14 In the past 20 years, a substantial proportion of in-patient discharges and deaths in all hospitals was due to cancer, stroke, diseases of heart, kidney diseases, chronic lower respiratory diseases, and injuries and poisoning, while infectious and parasitic diseases accounted for about 3% (Exhibit 33).

Exhibit 33: Number of episodes (%) of in-patient discharges and deaths by selected diseases in all hospitals in 1986 and 2006

	No. of episodes (%)	
	1986	2006
Infectious and parasitic diseases	23 948 (3.1%)	43 037 (3.0%)
Injuries and poisoning	88 341 (11.3%)	71 705 (5.0%)
Cancer	48 465 (6.2%)	97 172 (6.7%)
Diseases of heart	30 281 (3.9%)	61 887 (4.3%)
Chronic lower respiratory diseases	28 881 (3.7%)	39 371 (2.7%)
Nephritis, nephrotic syndrome and nephrosis	31 345 (4.0%)	84 672 (5.9%)
Stroke	14 847 (1.9%)	25 991 (1.8%)
Others	512 314 (65.8%)	1 017 329 (70.6%)
Total	778 422 (100.0%)	1 441 164 (100.0%)

Note: The percentage may not add up to 100% due to rounding.

(Sources: DH; Hospital Authority)

4. Overview of Local Situation

- 4.15 Likewise, the most commonly cited diseases that required long-term follow-up by doctors were NCD, including disease of the circulatory system (47.9%), endocrine and metabolic disease (22.4%) and musculoskeletal disease (13.5%) (Exhibit 34).⁶

Exhibit 34: Persons who had diseases that required long-term follow-up by doctors by type of disease, 2005

	No. of persons (‘000)	Proportion*
Disease of the heart or circulatory system	644.1	47.9%
Endocrine and metabolic disease	300.8	22.4%
Musculoskeletal disease	181.2	13.5%
Lung disease	110.9	8.3%
Disease of the eye	107.5	8.0%
Disease of the ear/nose/throat	92.8	6.9%
Mental disorder	90.3	6.7%
Cancer	40.6	3.0%
Stomach and intestinal disease	36.0	2.7%
Skin disease	35.0	2.6%

Note: Multiple answers were allowed.

* As a percentage of all persons who had diseases that required long-term follow-up by doctors

(Source: Thematic Household Survey Report No.30, Census and Statistics Department)

- 4.16 Of note, mortality is not a very sensitive marker for the burden of some diseases while in-patient statistics may distort the picture. Some conditions that cause substantial suffering through disability but do not result in death or hospitalisation may have been overlooked. To quantify the amount of full health lost due to disease or injury occurring in a particular period or to assess the complete spectrum of disease that occurs in a population, DALY can be used.
- 4.17 Although there have been some reservation on the study methodology (such as it is an expensive exercise, it requires a lot of data and the methodology is complex), a number of countries or regions, including Australia, Netherlands, New Zealand and Thailand, have utilised or adapted the WHO methodology to conduct their own burden of disease studies.
- 4.18 At present, however, data gaps impede an accurate assessment of the disease burden in Hong Kong. While Hong Kong has a good death registration system, data required for estimating the morbidity burden are not readily available, including disease incidence, severity and average duration of disability of many non-fatal diseases. There is a need for more accurate monitoring and surveillance systems that are able to generate real estimates of the burden of disease in our society. In some other countries, this issue is addressed by establishing "observatories" (Exhibit 35).

Exhibit 35: Public Health Observatories (PHOs)

A national network of public health observatories was created in England in 1999 following the publication of *Saving Lives: Our Healthier Nation*.⁷

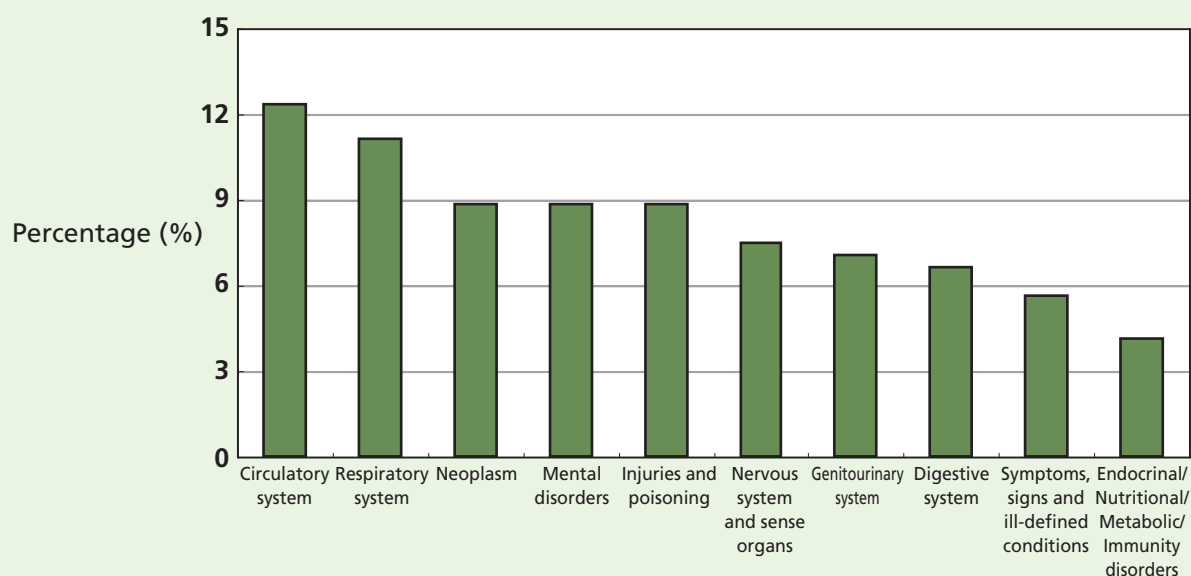
The PHOs work in partnership with practitioners, researchers, regional and local health policymakers and the voluntary sector by:

- monitoring health and disease trends and highlighting areas for action;
- identifying gaps in health information;
- advising on methods for health and health disparity impact assessments;
- drawing together information from different sources in new ways to improve health;
- carrying out projects to highlight particular health issues;
- evaluating progress by local agencies in improving health and reducing disparity; and
- looking ahead to give early warning of future public health problems.

Health Expenditure

- 4.19 Once a patient has been diagnosed with NCD, they may face lifelong treatment which can be very costly both to themselves, their families and the healthcare system. Quantifying the financial cost of any particular disease to the community has never been easy because cost data for individual disease are unavailable or incomplete.
- 4.20 Expenditure figures of the Hospital Authority (HA) showed that diseases of the circulatory system, diseases of the respiratory system, neoplasm, mental disorders, and injuries and poisoning accounted for the greatest expenditure of HA in 2004/2005. Altogether, these five diseases accounted for nearly 50% of the total allocated health expenditure in that financial year (Exhibit 36).

Exhibit 36: Proportion of expenditure of HA by disease chapters, 2004/2005



(Source: HA)

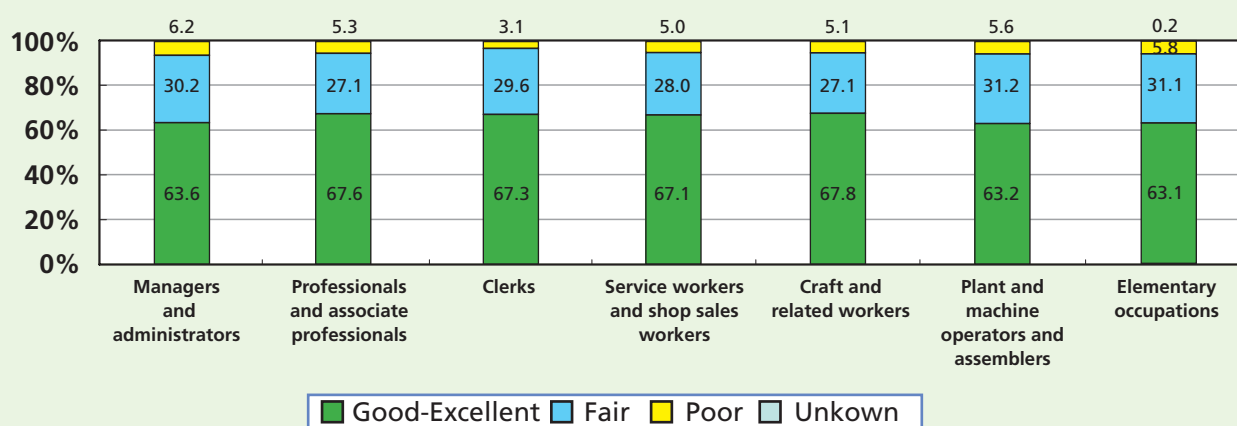
- 4.21 In view of the economic, social and personal costs associated with NCD, including injuries and poisoning, NCD prevention and control will be a sound investment in reducing expensive treatment costs, needless suffering and early deaths.
- 4.22 The current healthcare system, however, has put limited emphasis on effective preventive practice. In 1996 and 2001, the Government and private sector spent about 2.3% and 2.5% respectively of the entire health expenditure on disease prevention and health promotion. Resources need to be mobilised and put towards informing the public, empowering the communities and civil society groups or organisations, engaging the whole healthcare system and integrating efforts towards primary, secondary and tertiary prevention.

4. Overview of Local Situation

Health Disparity

- 4.23 In Hong Kong, health differences among different subgroups are evident. For example, men in Hong Kong have a shorter life expectancy at birth than women (79.4 years for males versus 85.5 years for females in 2006). There is also an explicit gender gap in many preventable illnesses.^{1,8} NCD are most prevalent in older and disadvantaged sectors of the population. Prevalence of chronic diseases in people aged 65 and above is about five times higher than that of individuals aged 20.⁹
- 4.24 Higher levels of education is associated with having a healthier diet and a lower prevalence of overweight.¹⁰ While non-skilled workers have comparably higher prevalence of cancer and diabetes mellitus, mechanical and machine operators have higher percentages of people having hypertension and stroke. Asthma is found more prevalent among associate professionals, managers and administrators as well as clerks.¹
- 4.25 Data collected in the 2005 Thematic Household Survey on people aged 15 and above in Hong Kong showed clear differences in self-perceived general health between occupational groups. A higher proportion of managers and administrators reported "poor" health than other occupation groups (Exhibit 37).⁶

Exhibit 37: Self-perceived general health condition by occupation, 2005



Note: Employed persons aged 15 and above

The percentage may not add up to 100% due to rounding

(Source: Thematic Household Survey Report No.30, Census and Statistics Department)

- 4.26 As health disparities take many different forms and arise from a variety of causes, there is no single solution for rectifying social disparities or narrowing the gaps between population subgroups. Various reports and analyses of health disparity consistently argue that it can be reduced through responsive public policies and collaborative public health actions. These may include building human capital through quality education systems, combating poverty by means of effective welfare programmes and increasing employment opportunities.^{11, 12}

Initiatives in Health Promotion and Disease Prevention

- 4.27 In Hong Kong, both the public and private sectors conduct health promotion programmes and provide disease preventive services.
- 4.28 Since 2000, the DH has strengthened health promotive and disease preventive activities in various services (Exhibit 38). On top of that, the Tobacco Control Office has been established to enhance and co-ordinate efforts on tobacco control, and the Men's Health Programme and the CSP have been launched to promote health of men and regular use of cervical smears to prevent cervical cancer in women respectively.
- 4.29 The HA has also played an active role in health promotion and disease prevention. For example, the Health InfoWorld organises exhibits, workshops and health promotion activities relating to major disease burdens in collaboration with community partners, various professionals, corporations, patient groups and volunteers. Its Patient/Health Resources Centres, based in hospitals, serve as a platform for engaging discharged patients and their carers in health education and self-management programs with the aim of enhancing patient mutual support as well as secondary prevention in relevant disease groups. The General and Specialist Out-patient Clinics also provide health talks to patients and the population at large.

Exhibit 38: Health promotion and disease prevention in the DH

Health Promotion (Central Health Education Unit and Oral Health Education Unit)

- Promotes the health of the community through collaborating with various agencies in health promotion, researching and evaluating the effectiveness of promotion programmes, disseminating information on good promotive practices, providing training to people engaged in health promotion activities and mobilising the community to involve in all aspects of health promotion through various channels of mass media and promotion campaigns.

Family Health Service (Maternal & Child Health Centres and Woman Health Centres)

- Child health: provides a comprehensive range of health promotion and disease prevention services for young children 0 to 5 years, including parenting programme, immunisation programme, and health and developmental surveillance programme.
- Maternal health and Family Planning: provides antenatal and postnatal care, cervical screening and family planning services for women.
- Woman health: provides health education, counselling and screening services to women aged 64 and below.

Health Service for Students (Student Health Service Centres, Special Assessment Centres, outreaching teams for adolescent health and School Dental Clinics)

- Provides all primary and secondary school students with health assessment, health education and individual health counselling services.
- Promotes psychosocial health of adolescents in secondary schools through an outreaching Adolescent Health Programme.
- Helps primary school children develop good self-care behaviour in dental health. Services offered by the School Dental Clinics include dental health assessment and check-ups; oral healthcare counselling and oral hygiene instructions; and preventive, basic curative and emergency treatment.
- Provide free vaccination through school immunisation teams.

Elderly Health Service (Elderly Health Care Centres and Visiting Health Teams)

- Provides integrated health services, including health assessment, physical check-ups, counselling, curative treatment and health education to elderly people aged 65 and above.
- Reaches into the community and residential settings to improve the self-care abilities of the elderly.
- Provides training to persons responsible for caring for the elderly in the community and residential settings.

Specialist Outpatient Service (Tuberculosis & Chest Clinics and Social Hygiene Clinics)

- Provides health education to the population at large and free curative care for patients suffering from tuberculosis, other respiratory diseases and sexually transmitted diseases.

4.30 A report showed that about 70% of the out-patient consultations are provided by the private sector.¹³ Another survey revealed that more than one-tenth of Hong Kong population aged 15 and above had received treatment from Chinese medicine practitioners in the 30 days before enumeration.¹ Therefore, their role in health promotion and disease prevention cannot be underscored.

4.31 NGOs, act as advocates for health, are an important partner in health promotion and disease prevention. For example, the Hong Kong Council on Smoking & Health coordinates measures against tobacco use, informs the public on the harm of smoking and its adverse health effects as well as conducts research into the cause, prevention and cure of dependence. The Hong Kong Cancer Fund is dedicated to the prevention of cancer through proper diets and healthy lifestyles. The Family Planning Association of Hong Kong runs health promotion campaigns and provides various counselling and clinical services to adolescents and adults. The Hong Kong Childhood Injury Prevention and Research Association conducts evaluation research as to inform and bring about good clinical practices.