Chapter 1 THE NEED FOR CHANGE

1.1 Over the years, Hong Kong has developed a high-quality and highly efficient healthcare system supported by healthcare professionals known for their dedication as well as high standards of professionalism and ethical conduct. The system has delivered high quality services for the public and has achieved impressive health standards – Hong Kong's health indicators such as life expectancy and infant mortality rank among the best in the world. Notwithstanding its outstanding performance so far, the present system is suffering from increasing strain and facing certain fundamental challenges. If we do nothing, the system will deteriorate significantly in the foreseeable future and become incapable of providing quality healthcare to our community and maintaining its impressive record.

Challenges to Existing System

1.2 The present healthcare system is facing a number of major challenges –

(a) **Increasing healthcare needs** due to demographic changes especially the rapidly ageing population and increasing occurrence of certain lifestyle-related diseases –

(i) **Rapidly ageing population**: the proportion of elders (aged 65 or above) in our population will double from one in eight in 2007 to one in four by 2033 (see **Figure 1.1** on page 7). The elderly dependency ratio (the number of persons aged 65 or above per 1,000 persons aged 15-64) will increase from 170 in 2007 to 428 in 2033. The elderly population has much greater healthcare needs, e.g. a person aged 65 or above uses on average six times more in-patient care (in terms of bed-days) than a person aged below 65 (see **Figure 1.2** on page 7).

(ii) **Increasing disease occurrence**: the occurrence of certain lifestyle-related diseases has been on the rise, e.g. the proportion of the population with hypertension has increased from 18.0% in 1995 to 27.2% in 2003 (see **Table 1.1** on page 8).

(b) **Rising medical costs** due to advances in medical technology and public expectations for healthcare to keep up with such advances (a trend known as "medical inflation") –

(i) **Advancement of medical technology**: advances in medical technology can lead to a rise in medical costs in a number of ways. New, better and often more expensive diagnostic methods may allow diseases to be detected earlier or more effectively treated. New, better and often more expensive treatments and drugs may appear for diseases either hitherto incurable or untreatable or have been treated with drugs less expensive but less effective or with more side-effects. New and better treatment may result in longer lives of patients with chronic illnesses or other conditions who may in turn require longer treatment. New medical technology may also require more substantial investment in both equipment and manpower. For instance, development in medical technology has led to specialisation and sub-division of the healthcare professions, including doctors and allied health professionals.

(ii) **Higher public and consumer expectation**: along with advancement of technology and improved access to medical information, there is growing expectation among the public for healthcare to keep up with the latest technology development, and a growing tendency for healthcare consumers to obtain second opinion and demand alternative options of healthcare services, which often lead to higher cost of healthcare. Demand for better quality of healthcare poses greater demand for healthcare manpower.

(iii) **Medical inflation**: international experience[2] as well as local trend indicate that adoption of new medical technology alone, to keep pace with international developments and keep up the quality of care, has caused public medical costs per capita to rise on an average of one percentage point per year faster than the growth of the economy (as measured by per capita Gross Domestic Product or GDP) (see **Figure 1.3** and **Figure 1.4** on page 8 and page 9 respectively). Even without the effect of demographic changes, the cost of healthcare is likely to continue to rise due to medical inflation.

(c) **Health expenditure growing much faster than the economy** as a result of both increasing healthcare needs and rising medical costs –

(i) **International trend**: this trend is evident both locally and in many other advanced economies (see **Figure 1.5** on page 9). In most

[2] Source: OECD (2006) "Projecting OECD health and long-term care expenditures: What are the main drivers?" Economics Department Working Papers No. 477.

advanced economies, irrespective of the rate of economic growth, the real growth rate of total health expenditure exceeds the real growth rate of the economy (in GDP) by more than 50%.

(ii) **Projected health expenditure**: our projection indicates that, if the current healthcare system remains unchanged, the total health expenditure required to meet the healthcare needs for the whole population is expected to increase at an average annual rate that is 59% faster than that of economic growth (in terms of real GDP growth) between 2004 and 2033. This takes into account both demographic changes (including both population growth and ageing population) and rising medical costs. At this rate (see also **Table 1.2** on page 10) –

- total health expenditure will increase by 3.6 times between 2004 and 2033, when GDP will only grow by 1.7 times during the same period. As a result, total health expenditure as a share of GDP would increase from 5.3% in 2004 to 9.2% in 2033 (see **Figure 1.6** on page 10);

- in real dollar terms (in 2005 price), total health expenditure will increase from $67.8 billion to $315.2 billion between 2004 and 2033, when GDP will increase only from $1,287 billion to $3,413 billion during the same period; and

- in per capita terms, health expenditure will nearly quadruple in real terms (in 2005 price) from $10,000 to $37,600 between 2004 and 2033, when per capita GDP will slightly more than double from $189,700 to $407,100 during the same period.

(iii) **Increasing share of public health expenditure**: if the current market structure and utilization pattern of both public and private healthcare services remain unchanged, the rapidly increasing healthcare needs of the community will pose intensifying pressure on the public healthcare system, especially because the elderly population rely more on public healthcare. Public health expenditure required for public services to meet the healthcare needs of the population would as a result increase at an even faster rate than the total health expenditure, and the share of public health expenditure in total public expenditure would also continue to rise. Our projection indicates that public health expenditure is expected to increase at an average annual rate that is 66% faster than that of economic growth (in GDP) between 2004 and

2033 (see **Figure 1.7** on page 11). At this rate (see also **Table 1.2** on page 10) –

- public health expenditure will increase by 3.9 times between 2004 and 2033, when GDP will only grow by 1.7 times during the same period. As a result, public health expenditure as a share of GDP will increase from 2.9% in 2004 to 5.5% in 2033;

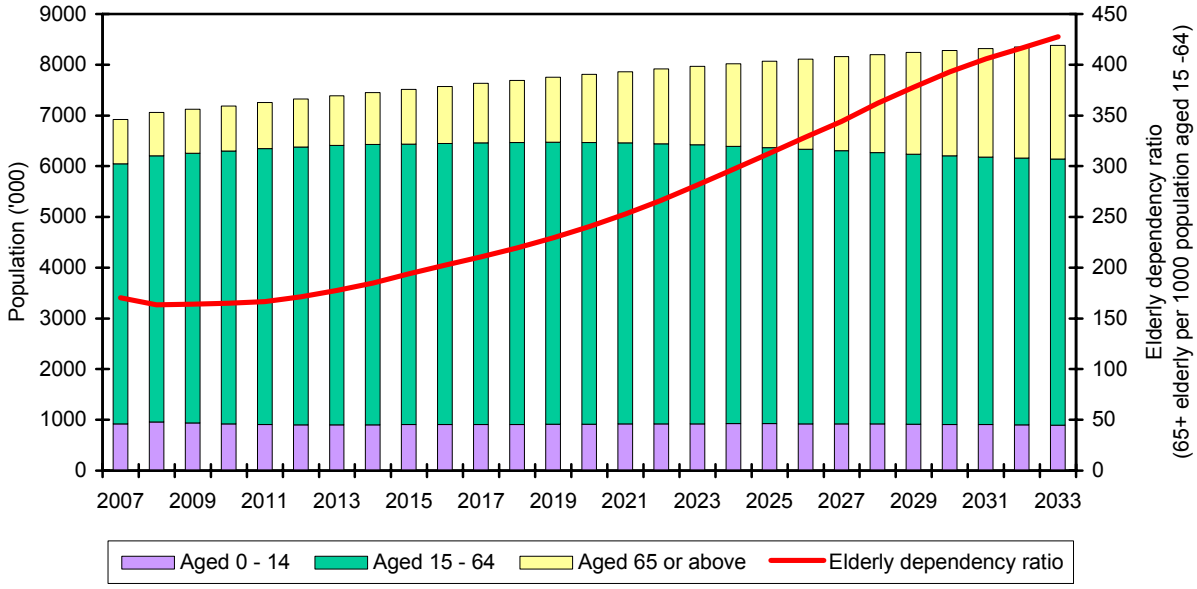
- assuming that total public expenditure will be kept below 20% of GDP, the share of public health expenditure as a share of total public expenditure will increase from 14.7% in 2004 to 27.3% in 2033;

- in real dollar terms, public health expenditure will increase from $37.8 billion to $186.6 billion between 2004 and 2033, when GDP will increase only from $1,287 billion to $3,413 billion during the same period; and

- in per capita terms, public health expenditure per capita will be quadrupled in real terms from $5,600 to $22,300 between 2004 and 2033, when GDP per capita will slightly more than double from $189,700 to $407,100 during the same period.

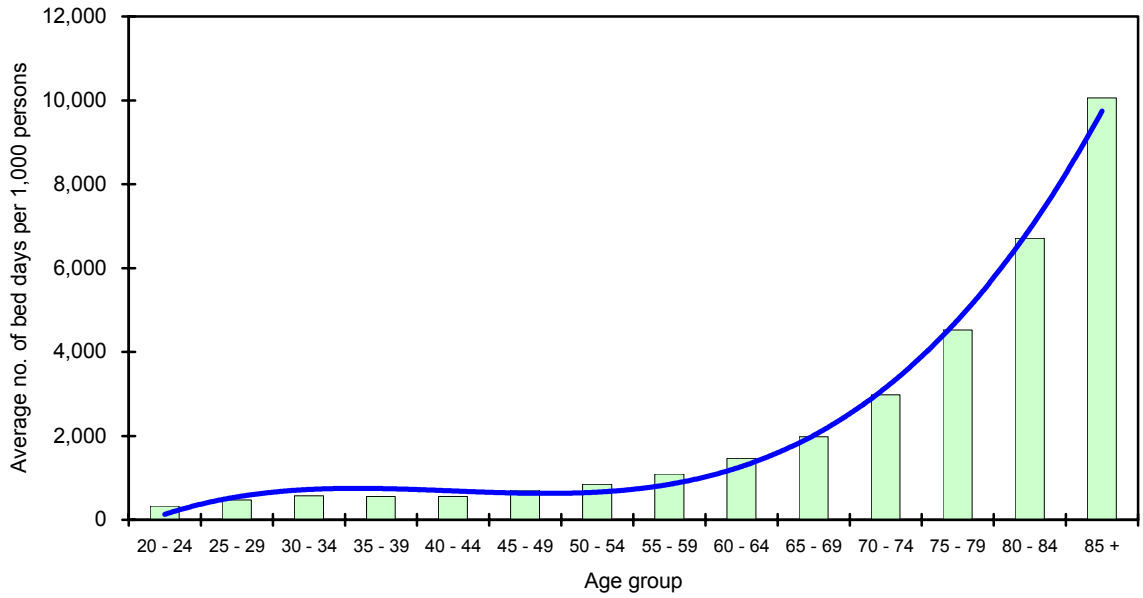
(d) **Increasing burden on future generations:** if we maintain the present financing arrangements of the healthcare system without reform, the burden on our future generations will get heavier. Having an ageing population means that the proportion of the working population will continue to decrease (see **Figure 1.8** on page 11), and so would be the tax base unless reform to the tax regime is carried out to broaden it. The increasing health expenditure funded predominantly by government revenue will thus pose an increasing burden on future generations of the working population.

Figure 1.1 ***Hong Kong has a rapidly ageing population***
Projection of total population, elderly population and elderly dependency ratio, 2007-2033



Source: Hong Kong Population Projections 2004-2033, Census and Statistics Department.

Figure 1.2 ***The elderly population has greater healthcare needs***
Average number of public hospital bed days utilized by age (2006)



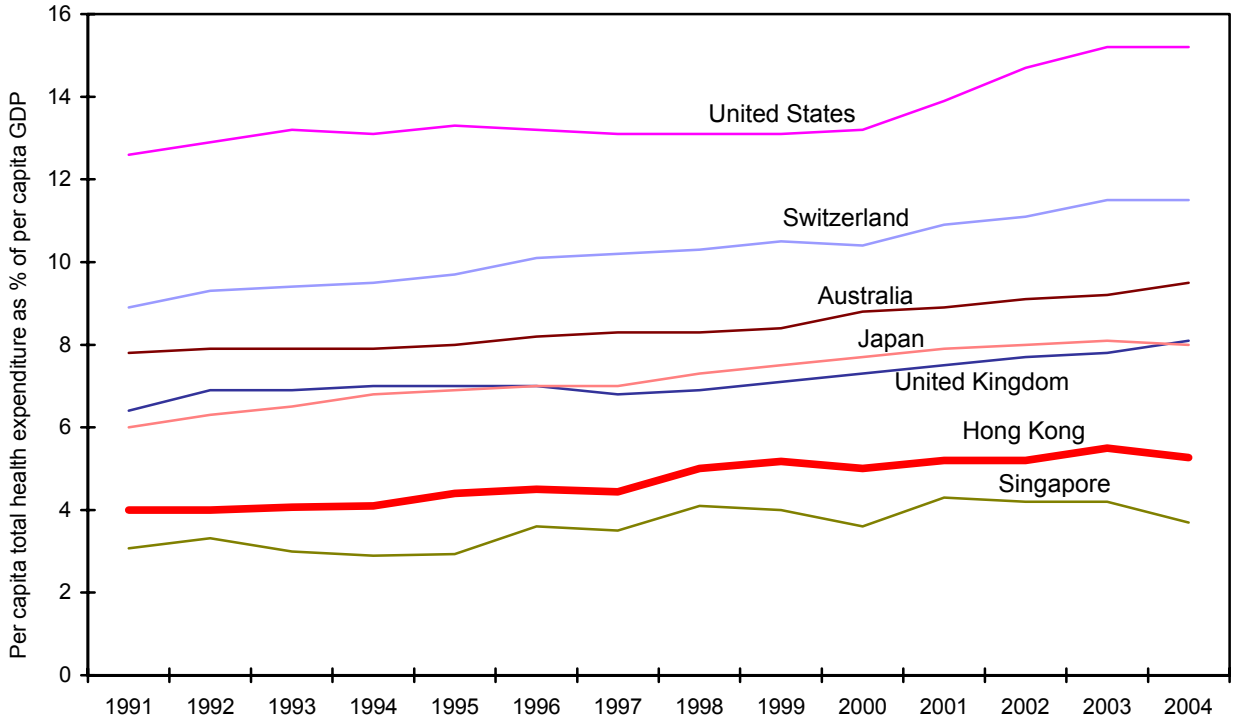
Source: Data from Hospital Authority.

Table 1.1 ***Occurrence of certain lifestyle-related diseases is increasing***
Comparison of occurrence of selected diseases over time

Diseases	Age group	1995	2003
Prevalence of hypertension [1, 2]	Below 65	13.7%	20.5%
	65 or above	53.2%	68.8%
	Total	18.0%	27.2%
New cases of colorectal cancer in males (per 100,000 population)[3]	Below 65	20.5	23.2
	65 or above	323.4	315.3
	Total	47.0	56.1

Source:
1. E.D. Janus. The Hong Kong Cardiovascular Risk Factor Prevalence Study 1995-1996. The figure refers to age group 25 – 74. Hypertension is defined as blood pressure of 140/90 or above.
2. Population Health Survey 2003/2004, Department of Health and University of Hong Kong. The figure refers to age group 15+. Hypertension is defined as blood pressure of 140/90 or above.
3. The Hong Kong Cancer Registry, Hospital Authority.

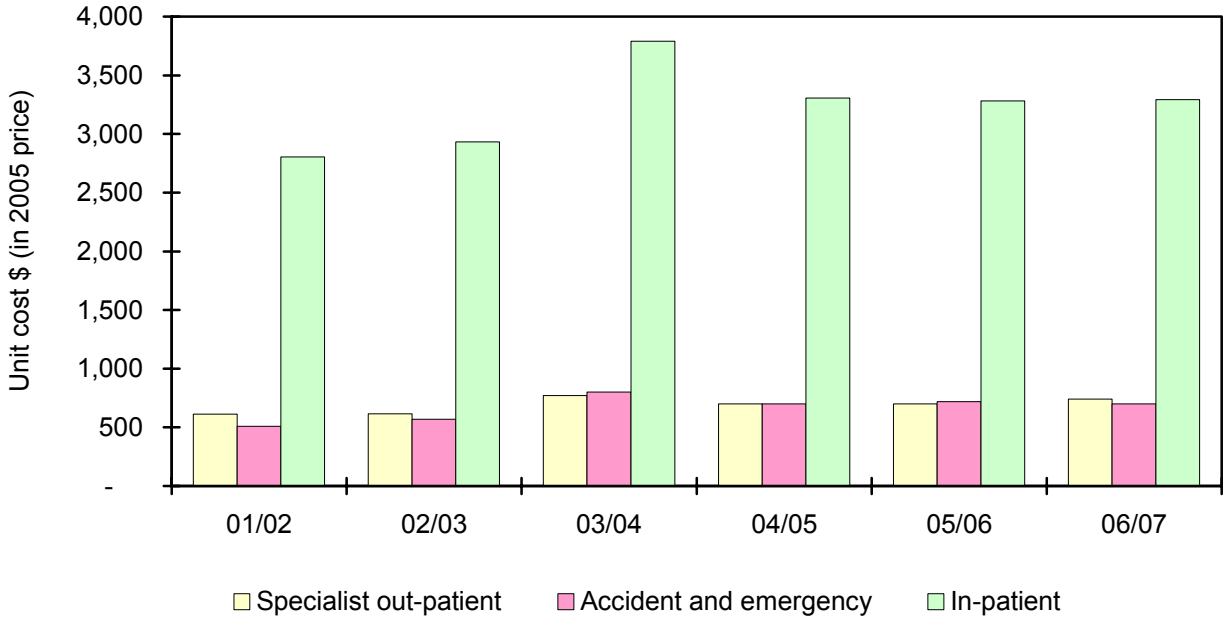
Figure 1.3 ***Medical inflation is driving increase in health expenditure everywhere***
Per capita total health expenditure as percentage of per capita GDP in Hong Kong and selected economies (1991-2004)



Source:
1. OECD Health Data 2007 (Oct 2007).
2. World Health Organization - National Health Accounts Series.
3. Singapore Ministry of Health, Healthcare Economics, Policies and Issues in Singapore by Toh Mun Heng and Linda Low.
4. Hong Kong's Domestic Health Accounts: 1990-2004.

Figure 1.4 ***Medical inflation - cost of healthcare is getting more expensive in Hong Kong***

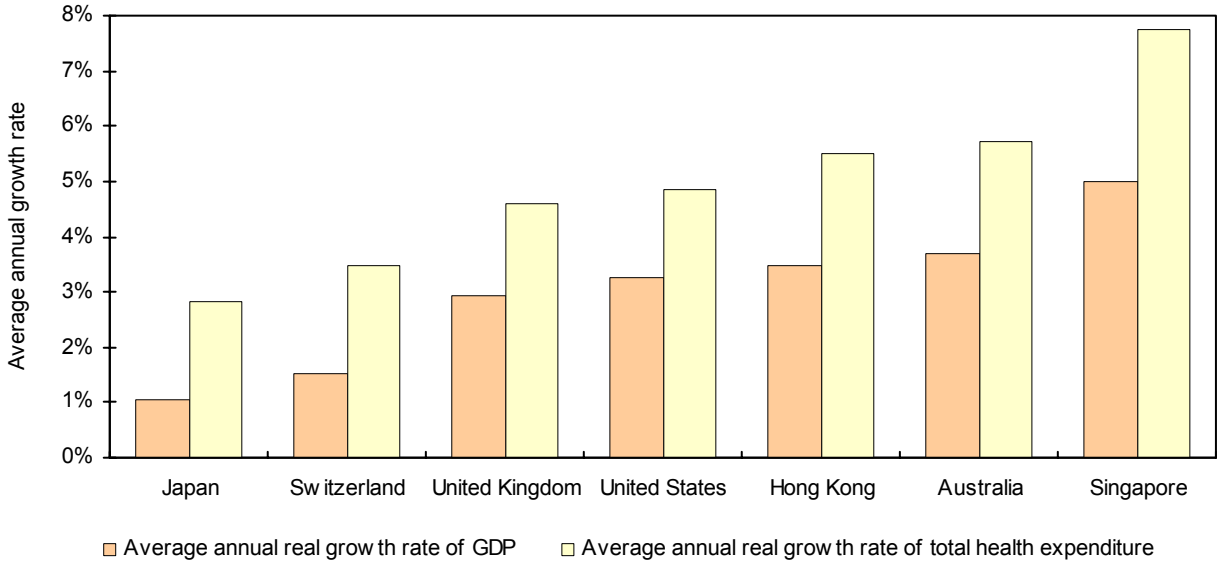
Unit cost per in-patient bed-day, specialist out-patient attendance, and accident and emergency attendance of public hospitals over the years



Note: In-patient services for infirmary, mentally handicapped and psychiatric services were excluded.
Source: Data from Hospital Authority.

Figure 1.5 ***Everywhere health expenditure is growing faster than the economy, Hong Kong is no exception***

Average annual real growth rate of total health expenditure and real growth rate of GDP in Hong Kong and selected economies (1995-2004)



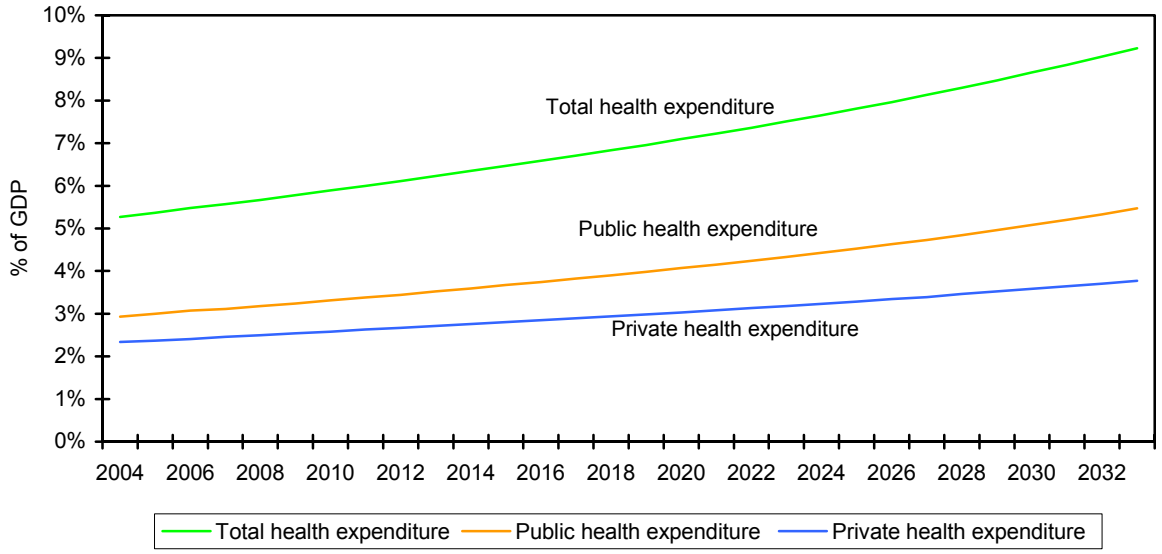
Source:
1. OECD Health Data 2007 (Oct 2007).
2. World Health Organization - National Health Accounts Series.
3. Singapore Ministry of Health, Healthcare Economics, Policies and Issues in Singapore by Toh Mun Heng and Linda Low.
4. Hong Kong's Domestic Health Accounts: 1990-2004.

Table 1.2 ***Without reform, Hong Kong's health expenditure will increase at a much faster rate than the economy***
Comparison of projected economic growth and health expenditure growth

		In year 2004	In year 2033	Increased by	Annualised growth rate
Population		6,783,500	8,384,100	24%	0.7%
Economic growth (GDP)	total ($billion in 2005 dollar)	1,287	3,413	165%	3.4%
	per capita ($ in 2005 dollar)	189,700	407,100	115%	2.7%
Total health expenditure	as % of GDP	5.3%	9.2%	74%	2.0%
	total ($billion in 2005 dollar)	67.8	315.2	365%	5.4%
	per capita ($ in 2005 dollar)	10,000	37,600	276%	4.7%
Public health expenditure	as % of GDP	2.9%	5.5%	90%	2.2%
	total ($billion in 2005 dollar)	37.8	186.6	394%	5.7%
	per capita ($ in 2005 dollar)	5,600	22,300	298%	4.9%
Share of public health expenditure in total health expenditure		55.7%	59.2%	-	-

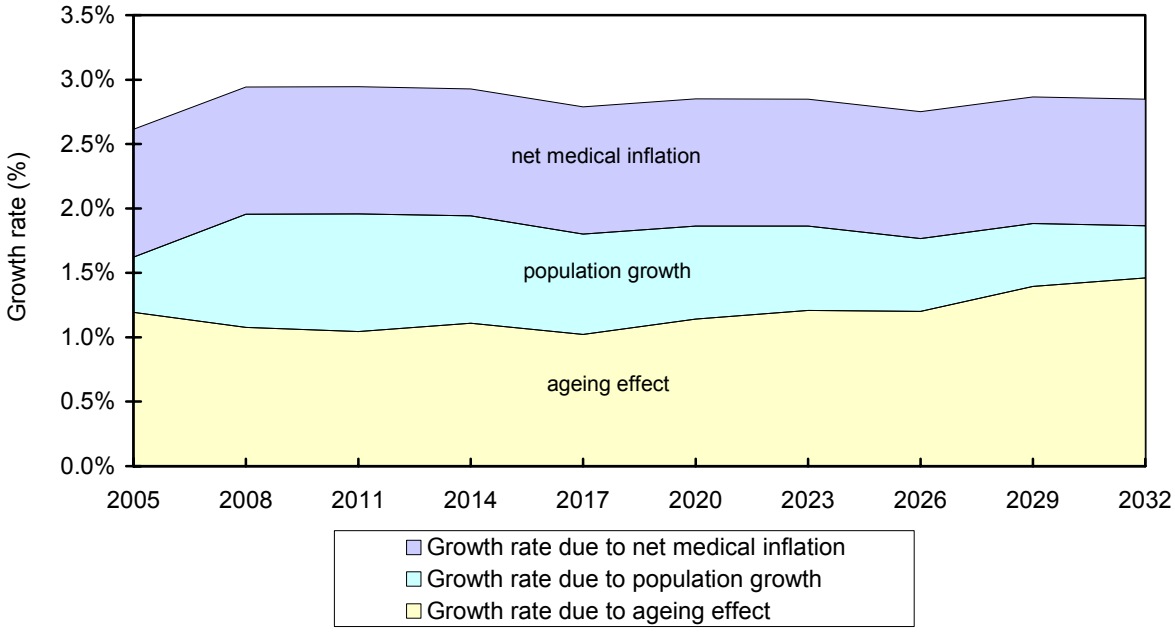
Source: Hong Kong's Domestic Health Accounts: Financial projection of Hong Kong's total expenditure on health from 2004 to 2033. Hong Kong Population Projections 2004-2033, Census and Statistics Department. Working assumptions on GDP growth by the Government Economist.

Figure 1.6 ***Without reform, Hong Kong's health expenditure will take an increasing share of our GDP***
Projected growth of health expenditure (total, public, private) in percentage of GDP



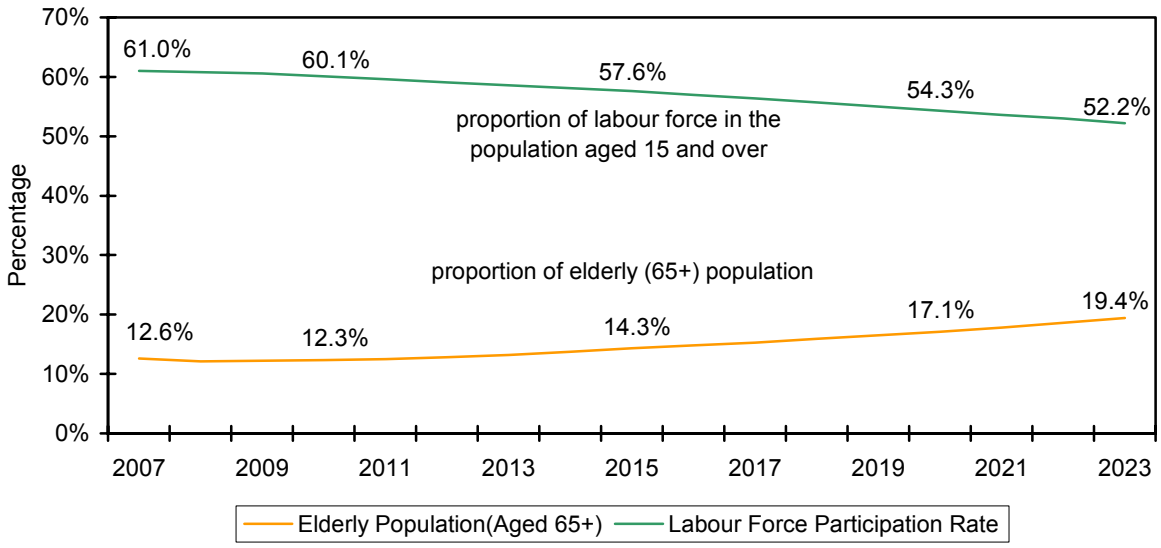
Source: Hong Kong's Domestic Health Accounts: Financial projection of Hong Kong's total expenditure on health from 2004 to 2033.

Figure 1.7 ***Without reform, demographic changes and medical inflation will drive Hong Kong's health expenditure to increase rapidly***
Projected growth rate of public health expenditure (on top of per capita real GDP growth) due to net medical inflation, population growth and ageing effect



Source: Hong Kong's Domestic Health Accounts: Financial projection of Hong Kong's total expenditure on health from 2004 to 2033.

Figure 1.8 ***Without reform, the burden of financing future healthcare for a growing elderly population will fall on a shrinking workforce***
The percentage of elderly population and labour force participation rate in Hong Kong, 2007-2023



Source: Hong Kong Population Projections 2004-2033, Census and Statistics Department; and 2003-based Projection for Labour Force Participation Rate 2004-2023, Census and Statistics Department.

Weaknesses of Existing System

1.3 In *"Building a Healthy Tomorrow"*[3], we have also identified the following structural weaknesses in the current healthcare system –

(a) **Insufficient emphasis on holistic primary care**: effective primary care can often improve the health of individuals in the community, and reduce their need for more expensive medical services especially specialist and hospital services. However, holistic primary care, especially preventive care and wellness promotion, is not sufficiently emphasized at present. Most patients seek and private doctors provide mainly curative care on an episodic basis. Few private practitioners offer comprehensive primary care including preventive care based on the family-doctor model. The concept of preventive care and wellness promotion such as assessment of health risks, screening and surveillance of health problems, health education and healthy lifestyle promotion is left to individuals and private doctors to pursue and is not extensively practised in the community. The current culture has impeded the development of an effective primary care system that can help to improve the overall health of the population, contain its curative healthcare needs, reduce reliance on hospital care, and improve the efficiency of the healthcare system as a whole.

(b) **Over-reliance on the public hospital system**: the public hospital system provides a comprehensive range of quality services (in-patient and specialist out-patient services) at very low fees (about 95% subsidies). At present, the public rely heavily on the public hospital system, which provides over 90% (90.8% in 2006) of all in-patient services (in terms of bed-days)[4]. The high subsidization rate and quality healthcare services offered by public hospitals continue to channel patients into the system, resulting in overstretched public hospitals as well as ever longer waiting lists and waiting time for services despite the fact that actual public health expenditure has grown by more than 2.8 times in real terms between 1989-90 and 2004-05.

(c) **Significant public-private imbalance**: the share of public hospital services is expected to continue to increase if the current system remains unchanged, even while private ambulatory care providers account for the majority of health expenditure on out-patient services. The significant

[3] Discussion paper issued by the Health and Medical Development Advisory Committee (HMDAC) in July 2005 on the future service delivery model of our healthcare system.

[4] Source: Data from Hospital Authority and private hospitals.

imbalance between public and private healthcare services means there is very limited competition between the two sectors. There is in effect very limited choice of services too: on the one hand, the 95% subsidized public services, offering little or no choice[5], is available to all; on the other hand, the unsubsidized but more readily available private services are accessible only to those who could afford the personalized choice over doctors, carers, treatments and amenities. Some patients who prefer and are in a better position to afford private sector services may be deterred from choosing such services due to the potential financial risk, sometimes unknown at the outset, unless they have substantial financial means or are adequately insured. This structure of the system offers little scope and incentive for the two sectors to collaborate, and is not conducive to better utilization of resources and further improving the quality and efficiency of services in both sectors.

(d) **Limited continuity and integration of care**: healthcare is a continuous process. The continuity of a long-term relationship between patients and their primary care doctors is essential to ensuring and improving the quality of care offered to patients. Interface and integration of healthcare at different levels of care, i.e. between primary care and hospital care, as well as communication of the primary care doctor with care-providing specialists and hospitals in both the public and private sectors, are crucial in ensuring timely, appropriate and efficient care for their patients. However, little emphasis is currently placed on the continuity of relationship between the primary care doctor and the patient, and also on the interface and integration of different levels of healthcare. This is mainly because of the current culture of over-emphasizing quick cure for illness and the tendency of patients to switch between doctors. There is much room for improving the interface, collaboration and integration between different parts of the healthcare system, which are essential for providing better quality of care.

Resultant Shortcomings of the Existing System

1.4 There are already signs that the above challenges and weaknesses are adversely affecting the current health system and resulting in the following complaints –

[5] Public hospitals essentially offer only one standard level of service accessible by all members of the public through the same waiting list, where timing of treatment is subject to queuing and triage, and depends on availability of services, with little choice over level of amenities and other ancillary services, and effectively no choice on the service-providing healthcare professional.

(a) **Long waiting time for public services**: the long waiting time for public medical services have long been a source of complaints, given the lack of accessible and affordable alternatives especially in the current private market for specialist and in-patient care. For instance, the notional waiting time in 2006 for the specialties of Surgery, Medicine, Psychiatry and Paediatrics was 31, 20, 14 and 10 weeks respectively.

(b) **Limited alternative choice to public services**: under the current system, the only alternative for those who do not want to wait on the long queues for public hospital services is to turn to unsubsidized private hospital services, which may entail relatively expensive charges and significant financial risks. Some patients may get some financial relief from employer-provided medical benefits or individual medical insurance, but often without adequate coverage – the former are not portable between employments and may be subject to the financial situation and discretion of the employer, while the latter could be unaffordable especially for the high-risk groups (e.g. the chronically-ill and the elderly).

(c) **Present safety net cannot cater for middle-income families**: the fee waiver mechanism and other financial assistance schemes under the current public hospital system serve primarily as safety net for the low-income families and under-privileged groups. The current safety net does not provide sufficient coverage for the middle-income families with patients having complex illnesses (e.g. catastrophic or chronic illnesses) that entail lengthy or costly treatment (e.g. chronic drugs or surgical consumables not covered by standard services). The sudden drain on a family's finances due to healthcare can lead to severe deterioration of the financial condition of these families within a short time, and the problem would be aggravated if the costly treatment has to continue for a long time.

The Consequences of Status Quo

1.5 Without undertaking fundamental reform of the healthcare system and improving the health of the population, the public healthcare system will not be sustainable. An immediate and readily felt consequence is the decline in the service level and quality of public hospitals. It is estimated that the continued growth in service demand could result in the following consequences for public healthcare if prompt action is not taken to improve the present system –

(a) **Waiting list and time for specialist out-patient services will continue to lengthen**: the notional waiting time for new cases of specialist out-patient

services is expected to triple by 2012. For example, the new case notional waiting time for Surgery at present at 31 weeks is expected to increase to 96 by 2012. The interval between follow-ups for old cases is also expected to increase significantly. For example, the follow-up interval would increase from 12 weeks in 2006 to 16 weeks by 2015 for Oncology specialty, 16 weeks in 2006 to 20 weeks by 2015 for Medicine specialty, and 26 weeks in 2006 to 37 by 2015 for Surgery specialty. The utilization by the elderly will increase from 1.9 million consultations at present to 2.4 million consultations in 2015.

(b) **In-patient wards will become more over-crowded and ward conditions will deteriorate**: the occupancy rate of public in-patient wards for a number of major specialties, including Medicine, Oncology, Orthopaedics and Infirmary, is expected to reach congestion (over 90% occupancy rate) within the next three years. The occupancy rate of public in-patient wards is expected to reach saturation (100% occupancy rate) by 2012 for Medicine specialty, and by 2015 for Oncology specialty. The utilization by the elderly will increase from 3.6 million bed-days at present to 4.4 million bed-days in 2015. For acute medicine, it is expected that the demand will outgrow supply such that no hospital bed would be available for 6,000 patients in 2015.

(c) **Waiting list and time for special services will continue to lengthen**: the waiting list and time for a number of special services are projected to increase significantly. For example, there would be around 22% or 2,000 patients by 2015 who might not receive sufficient renal replacement therapy (for instance haemodialysis) in public hospitals. The waiting time for non-urgent surgery would also lengthen significantly, e.g. the notional waiting time for cataract surgery is expected to increase from 33 months in 2006 to 75 months in 2015, the notional waiting time for benign prostatic hyperplasia surgery (a surgery for a common problem with the prostate) is expected to increase from 24-36 months in 2006 to 48-60 months in 2015.

(d) **Cannot sustain investment in healthcare facilities and equipment**: limited resources would constrain the ability of the public healthcare providers to upgrade or replace obsolete or expiring equipment and facilities within the usual equipment lifecycle of 10 years. This is expected to result in disruptive services and prolonged waiting time due to equipment breakdown, and compromise reliability, safety and diagnostic accuracy.

(e) **Cannot keep up with proven new medical technology (new drugs and procedures)**: prolonged under-investment would result in certain new technology for treatments and drugs becoming inaccessible or unavailable, leading to declining level and quality of public healthcare services in general. The Government will continue to allocate resources for public healthcare to alleviate these situations. However, the increase in resources for the public healthcare system will only defer but not resolve the problems, and sooner rather than later the increased resources will be outstripped by demand, unless we further increase the resources at the expense of other public services.

1.6 If we do not reform the current healthcare system and its financing arrangements, and we need to meet the increasing public health expenditure by the public purse to avoid the level and quality public healthcare services from deteriorating, either of the following situations will happen –

(a) **Rising tax bills**: if the extra funding required to meet public health expenditure is to be funded fully by government revenue, it is estimated that total public expenditure would have to be expanded to 22% of GDP by 2033. To fund such a required increase in public expenditure could mean substantial increase in Salaries Tax and/or Profits Tax. This would depart from the principle of small government and low-tax regime, and erode Hong Kong's economic competitiveness; or

(b) **Reduced funding for other public services**: if total public expenditure is to be kept below 20% of GDP, public health expenditure will increase from 14.7% of total public expenditure in 2004 to 27.3% in 2033, at the expense of funding for other public services (e.g. the share of funding for education, social welfare or security, which account for some 23.8%, 17.6% and 11.8% of recurrent government expenditure in 2008-09, may have to be reduced).

1.7 Without undertaking fundamental reform to address the rising healthcare needs and structural challenges to the healthcare system, and to improve the health of the community and reduce our reliance on hospital care, even if the Government could further increase its funding for healthcare within the limits of its budget, the increase would still be outstripped by healthcare needs sooner rather than later.

The Time for Reform is Now

1.8 **It is clear that maintaining the status quo is not a sustainable option.** To ensure the long-term sustainability of the healthcare system to provide quality

healthcare services to meet the increasing needs of the community in future, we must embark on fundamental reforms to both the service delivery and financing arrangements of the healthcare system in a comprehensive manner. If we do not take any action, we shall be depriving the public and our future generations of the chance to enjoy better and more sustainable healthcare services. We also have to bear in mind that it takes time to implement the reform measures, to build the right infrastructure to support the reform, and for the reform measures to take effect. **We must therefore act now.**