4: Ten Improvements We Must Make to Meet Surging Demand and Realise our Potential of Becoming a World-Class Medical Hub

Hong Kong certainly has the potential and momentum to become a Word-Class medical hub if the infrastructural and institutional obstacles that are holding back our medical advancement are removed quickly. We hereby set forth an action plan with the objective to enlarge and improve the hardware and software of our medical system so that there would be sufficient resources to provide for our community and realise the potential of becoming a World-Class medical hub within the next ten years when shortage should become acute.

Proposed Investments

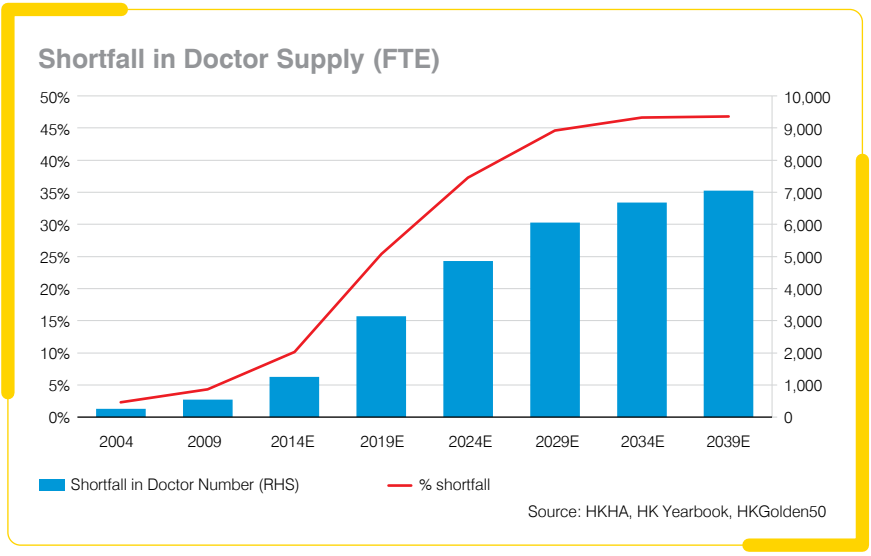
Build World-Class Medical Software	Capital Expenditure HK$bn	Operating cost per year HK$bn
(1) Increase annual medical students intake from 420 to c. 800 (+90%)	N.A.	1
(2) Introduce overseas qualified doctors to bridge the quickly developing shortage in specialists	N.A.	0.5
(2.1) Introduce new "Restricted Registration" to admit qualified specialists from overseas (2.2) Introduce Approved List of Medical Schools whose graduates could practise in Hong Kong without passing the Licensing Exams under Limited Registration (2.3) Introduce Clinical Year Recruitment Scheme to attract medical students or fresh medical graduates from top universities back to Hong Kong (2.4) Improve Transparency and Relevance in Licensing Exams for Overseas Qualified Doctors (2.5) Restructure composition of Medical Council to enhance responsiveness to community priorities		
(3) Establish a committee for centralised manpower planning	N.A.	0
(4) Facilitate doctors in private practice to return to HKHA should they wish to do so	N.A.	0.5
(5) Increase medical support staff by at least one-third (5.1) Train allied health professionals outside of universities	N.A.	5
(6) Enhance Primary Healthcare for the Community	10	3
(6.1) Invest in Integrative Medicine (6.2) Establish multi-disciplinary community centre and nursing homes targeted at elderly people (6.3) Explore feasibility of adopting part of Japan's Golden Plan for homecare (6.4) Establish mental health centres (6.5) "Return to Work" program for disabled citizens		
(7) Promote Medical Tourism	N.A.	N.A.
Build World-Class Medical Software		
(8) Increase hospital capacity by 5,000 hospital beds (or 14% of our current 35,525 beds) from building new hospitals and expanding existing facilities	20	10
(8.1) Build new public hospitals (8.2) Build nursing homes and add hospital beds to badly undersupplied districts (8.3) Increase private hospital capacity (8.4) Develop medical hub at Gateway To The World (GTTW) at the airport		
(9) Replace and upgrade medical equipment over ten-years old	7	2
(10) Expand facilities of HKU and CUHK medical schools*	3	N.A.
Total	**40**	**22**

*Cost included in HK$15bn budget to increase university capacity in our third report "How to Invest HK$100bn for Our Future"

Action 1: Build World-Class Medical Software

(1) Increase annual medical students intake from 420 to c. 800 (+90%)

As our system will be short by 360 doctors each year in the next two decades, it is crucial to increase the supply of doctors starting from today.



There are only two ways of increasing the supply of doctors:

(1) Train more doctors locally; or

(2) Attract medical talents from overseas

In Hong Kong, it takes HK$3m to train a doctor, and the number of doctors trained each year is highly dependent on University Grants Committee (UGC) funding availability.

The current 420 quota for medical students is one of the most generous quotas in Hong Kong's history, given that the UGC only offered funding for an average of some 280 spots over the past decade. The quota limit depends highly on the economic cycle—back in 2003, the UGC could only sponsor 220 doctors' training program each year due to a bleak economic outlook. This is an unreasonable approach to determine an appropriate amount of doctors because economic cycles do not reflect the demand for medical services.

Manpower planning needs to be carried out independent of economic cycles, according to medical services demand

Even if we kept the medical students quota at 420 per year, we would still be short of 8,000 doctors by 2039. It takes HK$3m to train a doctor, and in other words, the medical stream takes up 4% of the UGC's budget of HK$34bn per year. Ideally, even if Hong Kong's medical schools' capacity can train several hundred more doctors per year, and assuming that we can fund HK$800m more per year to train them, our medical system would not have enough senior doctors to train them and ultimately, the overall quality would still be subpar because we would be offering many new doctors who do not possess as much experience as their predecessors. Training new doctors is important, but more importantly, we need senior doctors with experience to lead and guide junior doctors.

We need at least 260 more doctors each year to meet the demand of doctors by 2039

In the light of doctors' shortage of 7,000 doctors by 2039 in 27 years' time, we need c.300 extra doctors each year. We therefore recommend increasing medical students intake from 420 to c.800 per year by expanding the medical school facilities of HKU and CUHK, and potentially adding a third medical school.

Increase annual medical students intake from 420 to c.800

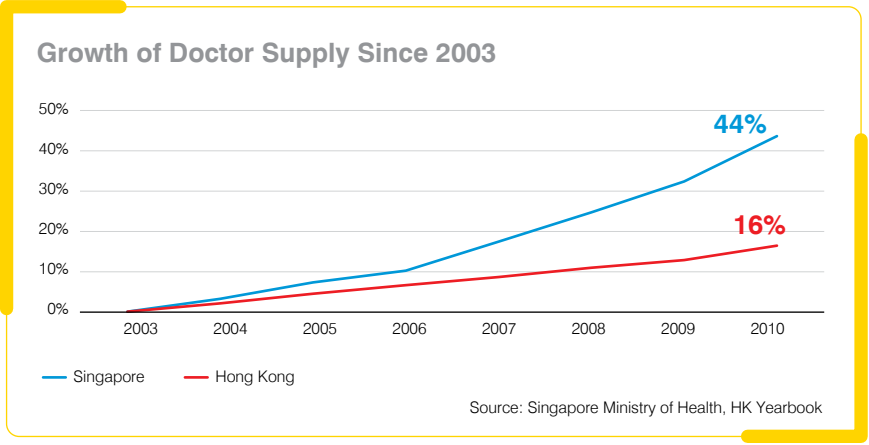
(2) Introduce overseas qualified doctors to bridge the quickly developing shortage in specialists

Medical demand is skyrocketing and we must hire overseas qualified doctors to address the shortage of doctors because it takes medical students more than ten years to become a specialist. The Hong Kong Public Doctors' Association conducted a survey 1,000 doctors from their registry and revealed that 90% of the respondents found that doctors are in shortage in the public sector, while 80% agreed that introducing overseas trained doctors could instantly alleviate this shortage.

90% of public doctors find a shortage of doctors in the public sector

Overseas examples have proven that importing doctors can create a boost to doctors' supply and alleviate manpower shortage problems. For instance, Singapore's loosened policies in introducing overseas qualified doctors since 2003 led to a 40% increase in doctors' intake between 2003-2010. In the same period, our growth only grew by 16%.

Singapore's loosened policies in introducing overseas qualified doctors since 2003 led to a 40% increase in doctors' intake between 2003-2010. In the same period, our growth only grew by 16%.



Hong Kong needs to hire overseas qualified specialists for three important purposes:

(1) Alleviate the burden on mid-level doctors in the public sector

(2) Increase diversity of knowledge and learn from the best overseas practices

(3) Train junior doctors for the expected increase of medical students from 420 to 800 per year

Expenditure surge in hiring doctors—reason for not hiring more doctors?

By all means we need more doctors hired within the HKHA, yet the HKHA has been trying to control their expenditure and often emphasize that 73% of total costs are already spent on medical staff's salary. Hiring more doctors will definitely incur more expenditure, yet not a huge proportion of HKHA's expenditure, let alone our total government expenditure. On average, a middle management doctor's salary is HK$100,000 per month. In the case of 2009, back when our system was short of 160 doctors, recruiting those missing doctors to meet medical staff demand would incur around HK$3.2bn per year, or only 1% more of the total expenditure spent on staff. This is a small amount given our government has an average of HK$70bn surplus per year.

(2.1) Introduce new “Restricted Registration” to admit qualified specialists from overseas

We propose a new category of registration: Restricted Registration, whereby overseas qualified specialists could practise in their specialty in Hong Kong if they pass a specialist exam. This specialist exam would be targeted at testing the applicant’s ability to practise in their area of specialty and would not encompass the entire syllabus of the Licensing Exams. The introduction of Restricted Registration is aimed to accommodate a sudden upsurge in medical demand because overseas qualified doctors could begin practicing immediately and so the recruitment of specialists becomes more flexible. Currently, HKHA recruitment is very rigid and has no option to hire more specialists within a short time frame.

(2.2) Introduce Approved List of Medical Schools whose graduates could practise in Hong Kong without passing the Licensing Exams under Limited Registration

Facing a shortage of doctors, HKHA invited overseas qualified doctors to apply to work in the public hospitals under a limited registration. Out of the 160 applicants, HKHA successfully hired nine overseas trained doctors (5.6% acceptance rate). These nine doctors were restricted to work in the public sector and did not have to pass the Licensing Exams.

Graduates of top medical schools such as Harvard and Stanford should be more than qualified to practise in Hong Kong

With only 8-12 overseas qualified doctors passing the Licensing Exams, our supply of doctors will continue to be heavily reliant on local supply that can only produce fresh graduates. The existing shortage of doctors in pediatrics, NICU, internal medicine and obstetrics and gynecology is severe resulting in hospitals continuously turning patients away as the departments are already stretched to maximum capacity. Currently, the nine doctors admitted to the HKHA are only allowed to work in Accident and Emergency and Anesthesia departments. HKHA should reexamine the areas where we need more medical manpower and recruit more overseas qualified doctors via this limited registration route to meet the immediate shortage of doctors.

We should expand this limited registration program by making all graduates of the global top medical schools automatically eligible for Limited Registration. The list of eligible medical schools should be flexible such that medical schools could be added to or taken off the list, similar to the list in Singapore. Since 2003, Singapore has expanded its list of recognised medical schools to select overseas qualified doctors to alleviate medical personnel shortage.

Positive lessons to learn from other top medical systems: Singapore's effective program in selecting top overseas qualified doctors to alleviate medical personnel shortage

Global Top 10 Medical Schools

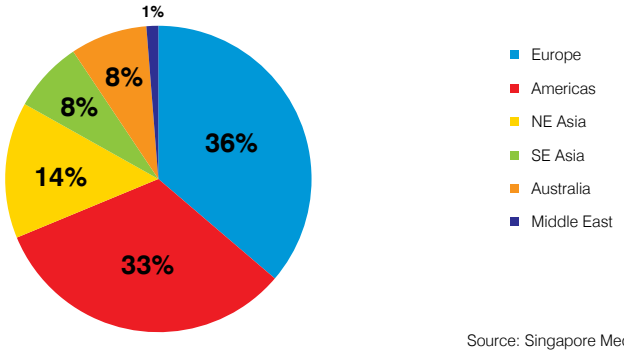
Ranking	University
1	University of Oxford
2	Harvard University
3	Imperial College London
4	University of Cambridge
5	Johns Hopkins University
6	Stanford University
7	University College London
8	Yale University
9	University of California Los Angeles
10	Duke University

Source: Times Higher Education

Number of Medical Schools Recognised by Singapore by Region

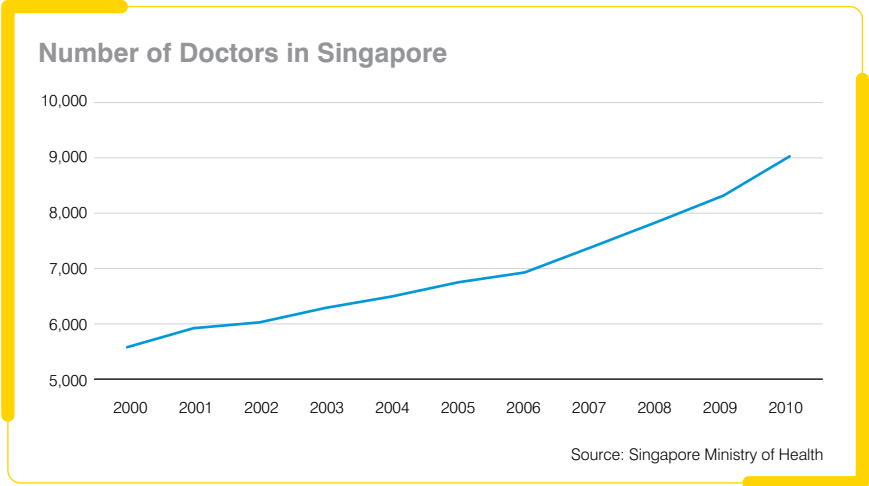
	1971	2003	2006	2007	2009
Americas	13	28 (+15)	42 (+14)	52 (+10)	52 (-)
Europe	8	28 (+20)	54 (+26)	56 (+2)	58 (+2)
NE Asia	0	2 (+2)	7 (+5)	15 (+8)	23 (+8)
SE Asia	0	0 (-)	2 (+2)	12 (+10)	12 (-)
Australia	2	12 (+10)	12 (-)	12 (-)	13 (+1)
Middle East	0	0 (-)	2 (+2)	2 (-)	2 (-)
Total	**23**	**70 (+47)**	**119 (+49)**	**149 (+30)**	**160 (+11)**

Geographical Distribution of Recognised Medical Schools in Singapore (2011)



Source: Singapore Medical Council

Singapore's success in recruiting overseas qualified doctors' to alleviate its manpower shortage and upcoming surge in medical demand offers positive lessons for Hong Kong. Compared to Hong Kong's system, Singapore has a much more flexible system and allows hospitals to recruit freely globally to meet the demand of upsurge in patients at specific departments. The country allows any doctor employed by a Singaporean hospital to practise on conditional registration, which allows an international medical graduate to work in a Singapore Medical Council (SMC)-approved healthcare institution under the supervision of a fully registered medical practitioner, as long as they are a graduate from a medical school recognized by the SMC. The list of approved foreign medical schools was expanded from 23 to 140 in 2003 to meet the rising demand of healthcare, and the country successfully attracted 40% more overseas qualified doctors each year by 2010.

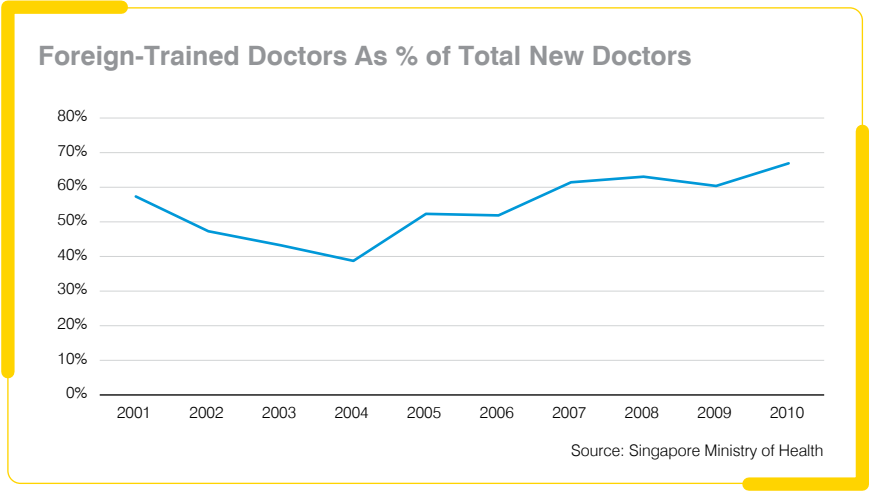


With the active recruitment of overseas doctors, Singapore nearly doubled its medical manpower between 2000 and 2010, increasing the supply of doctors by 3,500 over the course of ten years, with an annual growth of 5% on average. The active boost in doctors alleviated the workload of Singaporean doctors with huge strides. In 2000, a Singaporean doctor had to care for on average 70 patients, and this figure dropped by c.30% to 55 by 2010, leaving more time for doctors to serve each patient.

Singapore increased its medical manpower by 60% in ten years; loosening overseas approved schools remain a major role

In Singapore, the medical manpower surge relied heavily upon the loosened policy to absorb more global medical talents. With only two medical schools producing only 150 doctors at the beginning of the 2000s, Singapore understood that even with a 50% increase in medical school places by the end of the decade, the country would still be short of junior doctors. It adopted an aggressive strategy of expanding its medical school and opening the gates to more doctors from around the world. By 2010, overseas trained doctors accounted for 67% of Singapore's newly registered doctors. Such an increase is crucial to meeting Singapore's goal to improve its low physicians per capita ratio as the overall number of doctors soared by 40% between 2003 and 2010.

Overseas trained doctors make up 70% of junior doctors in Singapore

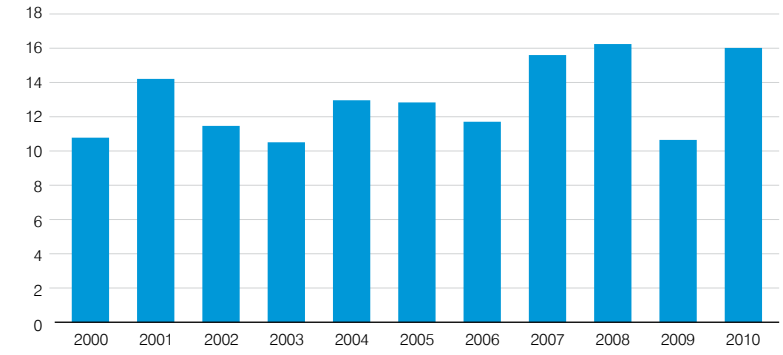


Despite a sudden surge in manpower, quality of Singaporean healthcare did not deteriorate. Mortality rates for Tuberculosis continued to drop steadily for males, and the same applies to mortality rates for cancer. Female cancer death rates have also dropped over the decade indicating that medical quality can improve even with hiccups in between.

The number of complaints per 1,000 doctors remained the same after recruiting overseas qualified doctors, which suggests that the quality of medical care should not deteriorate if Hong Kong adopted a policy similar to Singapore's.

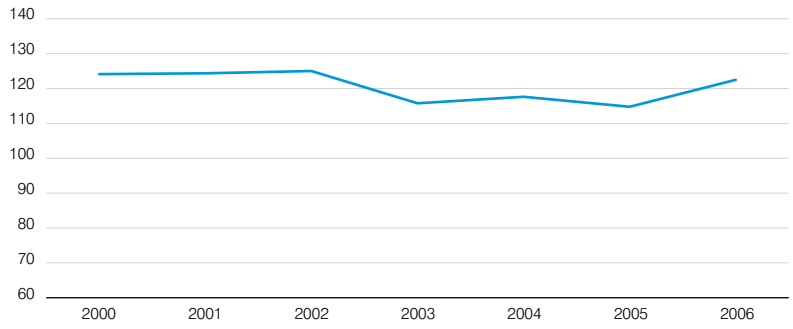
Singapore's track record in its healthcare planning over the past decade is the perfect showcase that quality can coexist with a quantity boost

Complaints Per 1000 Doctors in Singapore



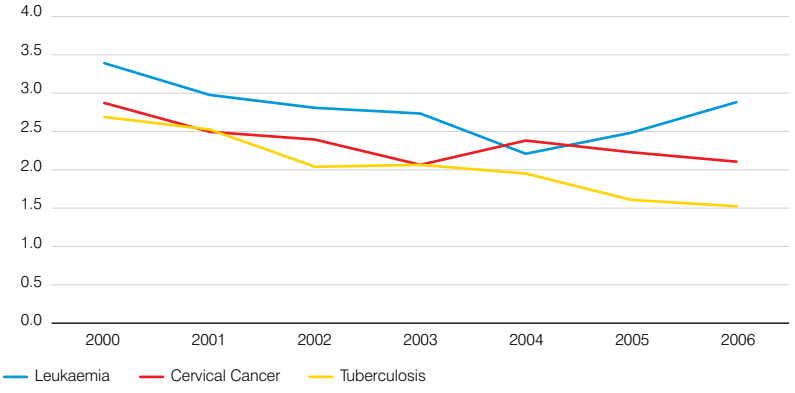
Source: Singapore Medical Council

Singapore's Overall Cancer Death Rate Per 100,000 Population



Source: WHO

Singapore's Death Rates of Various Diseases Per 100,000 Population



Source: WHO

Sharp contrast with Hong Kong—Singapore

Results of Singapore's policies are evident as shown in the charts above. By the end of 2010, the number of doctors in Singapore more than doubled while Hong Kong starks in contrast with only a 20% increase in total doctors supply. Unfortunately Hong Kong pales in comparison not only in our magnitude in increasing our healthcare workforce, but also our determination to protect our citizens' well-being by breaking the protectionist policy local doctors have managed to defend for over a decade. We need to break down these walls as soon as possible, and recruit more overseas qualified doctors to fill the gap, as well as boost our local medical trainees to safeguard Hong Kong people's healthcare interests.

The Singapore Experience – HKU and CUHK studies should investigate this in detail; a separate study by LKY School may be commissioned to provide "outside looking in" perspectives

As a Non-Governmental Organization (NGO), we could not access data that are more recent than 2006 but we believe HKU and CUHK should have much better relationship with their Ministry of Health and NUS LKY School of Public Policy so that their experience with new doctors can be shared with us. This knowledge will significantly lower the execution risk of importation of doctors should we need to do so in order to make up for medium term shortfall before we can train local talents to fill such needs.

By 2012, the doctor population in Singapore will exceed Hong Kong

Singapore's active manpower planning has increased its supply of doctors by 60% over the past decade. By 2012, the doctor population in Singapore will exceed Hong Kong's. Since the increase, complaints launched against doctors remained low and mortality rates of patients did not increase either, which means the quality of healthcare services was not affected by recruiting overseas qualified doctors. Many Singaporean doctors acknowledged the government's efforts in reducing doctors' workload and thereby improving the quality of services. This is the case in point where a quantity boost can go side by side by an improvement in quality.

(2.3) Introduce Clinical Year Recruitment Scheme to attract medical students or fresh medical graduates from top universities back to Hong Kong

Recruit overseas medical talent as soon as they graduate

Another strategy for securing medical talents from overseas is to attract these medical students to return to Hong Kong before they settle down overseas. We can consider attracting medical students who have completed their pre-clinical training back to Hong Kong to complete their clinical training. Singapore has a similar scheme, known as the Pre-Employment Grant, to attract overseas trained Singaporean medical students back to their country. Singapore's Health Minister Khaw Boon Wan mooted the program in 2010 to offer up to c. HK$240,000 a year for overseas students on a medical degree in exchange for their service in Singaporean public hospitals for three years upon graduation. We may wish to include such a grant depending on the initial response.

There are plenty of aspiring doctors who are top 0.5% students but get rejected because of the lack of university places in Hong Kong

Many students aspirating to be doctors get rejected by medical schools each year because of Hong Kong's limited resources to train medical students. Within the Early Admission scheme alone, some 180 brilliant students with 6As or above place medical school as their first choice, but only 62.5% of them receive offers. The remaining 70 students have to enroll in a subject they are not as interested in, and few have to go overseas to pursue their dreams to become a doctor. With this medical student recruitment scheme, these potential doctors could enroll in top medical schools outside of Hong Kong to finish their medical training, and we would gain 70 more doctors (17% of new doctors per year) each year.

Clearly there are enough bright students from Hong Kong who wish to practise medicine in Hong Kong. Recruiting them back after their pre-clinical or medical school training is a win-win solution for both aspiring doctors and patients. The scheme will ensure these overseas recruits to be able to communicate and understand the patient culture, and familiar with the local diseases. This recruitment will address the concern that overseas medical graduates may not satisfy the local requirement.
In addition, expending only the last 2 years of the medical curriculum will be an efficient way to produce medical graduates in the short term. The quota can be adjusted quickly depending on the need of doctors in Hong Kong.

Clearly there are enough bright students who wish to become a doctor, recruiting them back after their medical school training is a win-win solution for both aspiring doctors and patients

The HKHA has started comprehensive schemes to train radiologists, including sending 25 trainees to the United Kingdom for specialist training on the condition that they will work in the HKHA for at least five years. Along the same lines, the HKHA has hired a total of 36 overseas trained radiologists, mainly from the UK in 2010 to alleviate the heavy workload and shorten waiting times for FMRI and CT scans. These are adoptable measures and should be applied widely to other departments as well.

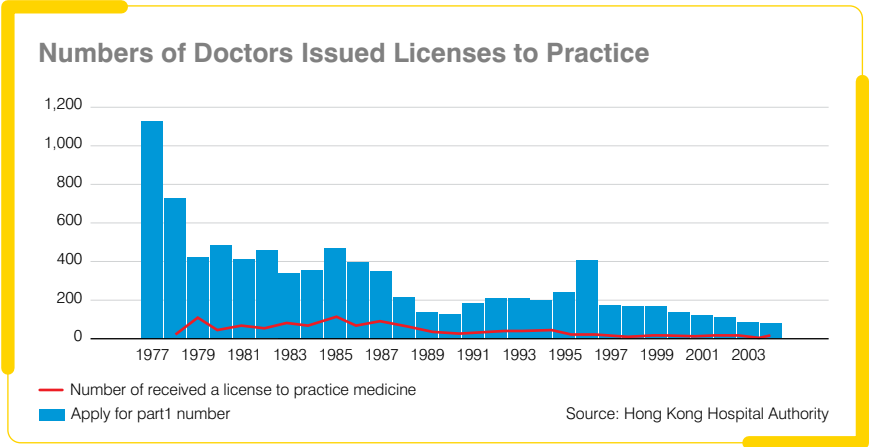
Hong Kong has started offering overseas training schemes for radiologists and this can be adopted to other medical staff as well

(2.4) Improve Transparency and Relevance in Licensing Exams for Overseas Qualified Doctors

Since 1997, overseas qualified doctors had to go through Licensing Exams with a passing rate of 8-10%

Prior to 1997, doctors qualified in commonwealth countries were automatically allowed to practise in this former British colony, and those qualified elsewhere could take a conversion exam that could easily get them a training spot in the public hospitals. However, since 1997, overseas qualified doctors, including the ones trained in the reliable commonwealth countries, were no longer welcome to our city to practise. Doctors, however qualified they are or wherever they were trained, have to go pass three Licensing Exams to obtain a full registration license to practise medicine in Hong Kong. Theoretically, this is an excellent method to safeguard our citizens from subpar doctors, but when Harvard and Cambridge medical students were denied from our local practice because they failed to pass the Licensing Exams (net passing rate at 8-10%), many people question whether the Licensing Exams are protectionist measures to safeguard doctor's level of remuneration.

Number of licenses granted dropped significantly since 1997



Reform the licensing exams to better reflect doctors' competence in clinical practice

We recommend a reform for the Licensing Exams to make the examinations more relevant to the practice of medicine. For instance, the nature of the exams should reflect the competence of a surgeon's ability to perform operations skillfully, instead of testing textbook knowledge that is not required in actual medical practice.

There are many doctors around the world who want to practise in Hong Kong but are deterred by the Licensing Exams which has no detailed syllabus of the topics the exams cover, nor any official textbooks for revision. We recommend the release of past papers and provide a detailed syllabus to make the Licensing Exams transparent to attract more foreign medical talents to fuse the world's best practices in our medical care provision.

Increase transparency of Licensing Exams syllabus and past papers to ensure a fair system for all exam takers

Since our system is vulnerable against any sudden upsurge in demand, in light of our foreseeable increase in medical attention, we need to revise this policy as soon as possible. Management level doctors have estimated that Hong Kong can recruit c. 150-200 (or 1% of total doctors population) overseas qualified doctors per year if barriers were lowered. The entrance of more overseas qualified doctors can help alleviate our manpower shortage. These doctors can also bring in their expertise and break the monopoly of to enhance our medical knowledge of best medical practices.

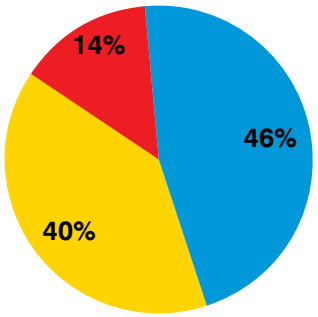
Loosening existing requirements will add c. 150 (or 1%) extra doctors each year

(2.5) Restructure composition of Medical Council

The Licensing Exams are monitored by the Medical Council, which is composed of 28 members. Section 3 of the Medical Registration Ordinance sets out who may be appointed to the Medical Council. While the provision does not set a quota for how many members should be in the public or private sector, nearly half of them are doctors practicing in the private sector, and the rest are made up of a mix of doctors in the public healthcare system, professors and doctors of different universities and lay members. In other systems such as the UK, Australia and New Zealand, lay members account for over half of a medical council's members for the sake of safeguarding public's interests ahead of doctors' interest; Hong Kong's system only allows four lay members appointed by the Chief Executive. Thus, the composition of the Hong Kong Medical Council is not neutral in comparison. To ensure that our patients' interests are represented, we recommend a restructure of the composition of Medical Council to have more lay member representatives. Ideally, at least 50% of the members, i.e. 14 out of 28, should be lay members.

Current composition of Medical Council vulnerable to bias due to high proportion of doctors vs lay members

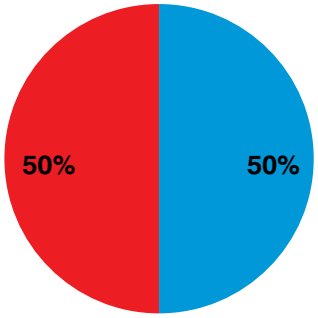
Composition of Hong Kong Medical Council



*As of June 2012

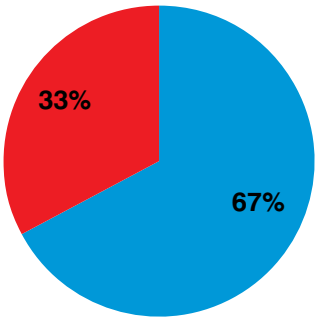
Source: HK Medical Council

Composition of UK General Medical Council



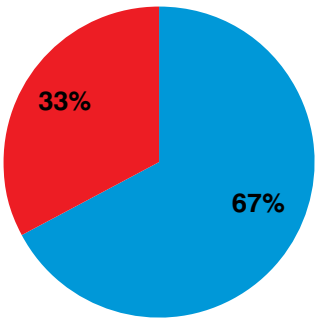
Source: UK GMC

Composition of Medical Board of Australia



Source: Medical Board of Australia

Composition of Medical Council of New Zealand



Source: Medical Council of New Zealand

(3) Establish a committee for centralised manpower planning

There is no single committee for a comprehensive manpower planning; the University Grants Committee (UGC) plans the annual medical students intake, and this process is separated from the HKHA, the agency that plans the number of doctors and nurses to hire in public hospitals. If HKHA needed more doctors and nurses, the UGC could reject the request for training more medical and nursing students. There should be a centralised planning committee that oversees the entire healthcare ecosystem from private to public, from therapists to nurses to healthcare assistants; benchmark the quantity, salary, work hours and other numbers against peers such as the OECD countries; and trace the development of our medical services against demographic and other social trends. The aim of the committee is to ensure cross-discipline coordination of manpower in the healthcare ecosystem.

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(4) Facilitate doctors in private practice to return to HKHA should they wish to do so

Our World-Class doctors practicing in the private sector should have the option to return to the HKHA system to help train junior doctors with the aim to ensure that our senior doctors are passing their World-Class baton of knowledge to the junior doctors. The HKHA should continue their efforts to establish a 'revolving door' policy in general such that doctors in the private sector can easily move back into the public sector by undergoing an induction program.

Our World-Class doctors practicing in the private sector should have the option to return to the HKHA system to help train junior doctors with the aim to ensure that our senior doctors are passing their World-Class baton of knowledge to the junior doctors

(5) Increase medical support staff by at least one-third

An efficient medical system requires teamwork within and across departments. Doctors need a team of competent nurses, healthcare assistants, therapists and other allied health professionals to take care of the full spectrum of a patient's needs.

Currently, Hong Kong is especially in lack of nurses and healthcare assistants that are specialised in Geriatrics and Psychiatry among other specialties. Mental health in particular is often neglected due to lack of beds to house patients with mental problems. Many chronic diseases can lead to depression which could be treated by therapists rather than doctors, and healthcare assistants could help ensure patients with mental problems take their medication by conducting frequent home visits. With the imminent spike of senior citizens, we must hire and train medical support staff to support doctors in their objective to promote better mental and physical health of their patients.

(5.1) Train allied health professionals outside of universities

Reinstating nursing school is a sound policy, and should be applied to all other medical support staff systems. Since nursing schools were reestablished in 2008, the number of nurses increased by more than 100%. Private hospitals including Sanatorium, Baptist and St. Teresa are short of nurses to the extent that they are paying nursing students HK$7,000-HK$8,000 a month during their training to attract more students. Since the medical demand will continue to spike as our society ages, the government and institutional vocational schools should channel more resources to train allied health professionals such as physiotherapists to radiologists to meet the healthcare demand.

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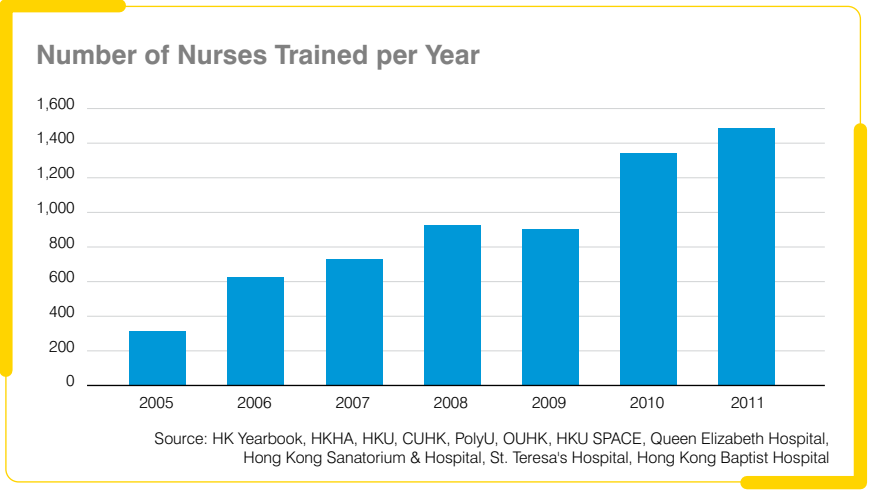
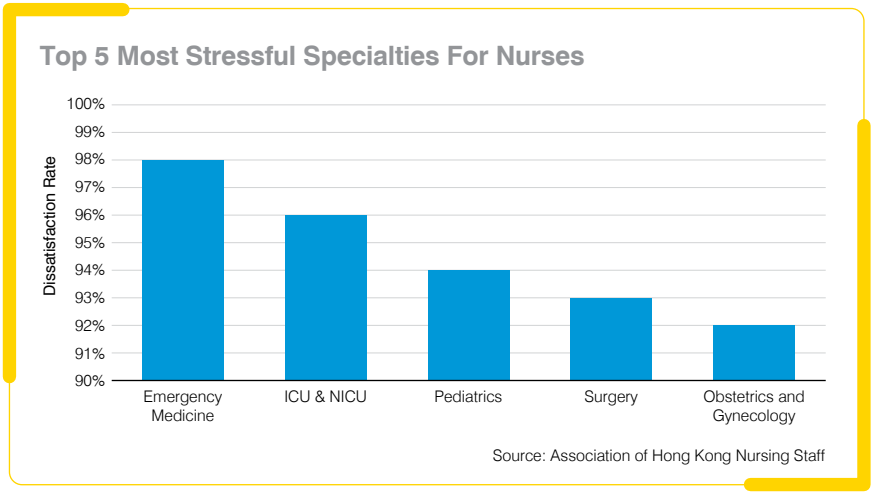


Train nurses according to specialty

Despite the huge increase in nursing talent, the public system is still short of nurses, when turnover rate is as high as 5% per year, and 8-9% for specific departments like Obstetrics and Gynecology and Pediatrics department. A survey conducted by the Association of Nursing Staff showed that the nurses to patients ratio has continued to plunge, especially for night shifts. While international standards recommend nurse to patient ratio to hover between 1:4 and 1:6, Hong Kong's standards are averaging 1:20 to 1:24, which is four to five times the recommended ratio. Those departments with the most stringent manpower also see a higher dissatisfaction rate. We need more nurses for these departments in the hospitals as well as for community centres and nursing homes.

	Morning Shift	Afternoon Shift	Overnight Shift
2011	1 : 12 - 14	1 : 14 - 16	1 : 22 - 24
2010	1 : 10 - 12	1 : 12 - 14	1 : 20 - 22
2009	1 : 8 - 10	1 : 11 - 12	1 : 20 - 21



(6) Enhance Primary Healthcare for the Community

Primary healthcare has been lacking in Hong Kong for many years. With the imminent spike in demand for hospital care, enhancing our primary healthcare can alleviate the pressure on our hospitals. WHO has stated that the ultimate goal of primary healthcare is better health for all. Accordingly, a successful primary healthcare system requires a robust supply of generalist family doctors that can act as gatekeepers and provide continuous healthcare process and prevent illnesses and diseases in the population in a more cost-effective basis.

The enhancement of primary healthcare is a global trend as studies have shown that a country with a stronger primary healthcare system generally has a healthier population. Even the Dubai Health Authority has recently acquired land in Jumeirah to build a state of the art primary healthcare centre because it believes primary healthcare centres are frontline in the fight for better health of its population.

Primary healthcare is cost-effective—more investment in primary healthcare lead to better outcomes per healthcare dollar

Apart from better health for all, primary healthcare is encouraged by the WHO and many governments because it is cost effective. Hospitalization is very expensive thus a primary healthcare system can reduce hospitalization rates by preventing illness and diseases in the first place. Hong Kong has introduced some preventative measures in recent years but generally, the funding for screening and prevention program remains severely lacking. Accordingly, Hong Kong can be more cost-effective with our health expenditures if we invest more in primary healthcare.

Primary Healthcare has been criticised for being fragmented and uncoordinated

Currently, primary healthcare is predominantly provided by private general practitioners and funded out of pocket. Consequently, primary healthcare has been criticised as being fragmented and uncoordinated due to the following reasons: lack of recognition of family medicine as a specialty, doctor shopping habit, lack of clear clinical standards, lack of register of primary healthcare practitioners and lack of comprehensive data system.

We should rapidly invest in community healthcare centres, where consultations, diagnostics and medication services can be provided in one location. This concept of community healthcare centre has been proposed in many reports in the past 20 years but the Hong Kong government has yet to take action for reform. With the substantial reserve Hong Kong has today and the imminent spike in healthcare demand, this is the time to invest in a robust primary healthcare system and lead the world in providing the most cost-effective World-Class medical system.

(6.1) Invest in Integrative Medicine

Opportunity to become the global number one in Integrative Medicine

Integrative medicine is the practice of combining western medicine with alternative medicine, such as Chinese medicine. Hong Kong citizens have long practised integrative medicine on their own. For example, many cancer patients endure side effects from chemotherapy and use Chinese medicine on the side to alleviate these side effects. Instead of disregarding their intake of Chinese medicine, innovative clinics and hospitals such as Kwong Wah Hospital has developed a coordinated practice of Integrative medicine by providing Chinese medicine to patients and keeping a record of their dosage.

Hong Kong is in a unique position to become the global number one hub in integrative medicine because it already has the hardware and software of Chinese medicine and we have a track record of quintessential success at merging and advancing Western and Chinese practices. Chinese medicine centres in Hong Kong have already computerised the entire system through detailed patient records of dosage. Advanced technology has made the practice of Chinese medicine more systematic and gives self-empowerment to patients who can now identify the different herbs in their dosage and take the medicine by adding powdered mixture with hot water. This leap in technology has enhance the quality of Chinese medicine.

Developing the practice of Chinese medicine also provides huge benefits to senior citizens. One of the biggest risks for senior citizens is slip and fall accidents. As soon as senior citizens require hip replacement, their health deteriorates very quickly. Studies have shown that if senior citizens practise Tai Chi, which strengthens the leg muscles in particular, then their risk of slip and fall accidents is drastically reduced. Also, Chinese medicine is integral to an effective primary healthcare strategy as it promotes a holistic approach to healthcare. For example, acupuncture and Tuina therapy are suitable for senior citizens and can be administered periodically for a gradual promotion of health to prevent the emergence of acute failure. With the imminent spike in the number of senior citizens, the development of integrative medicine can alleviate the burden of hospitals and promote better health for Hong Kong citizens.

Slip and fall accidents are common and detrimental to elderly's health conditions; Chinese medicine and primary healthcare can mitigate these risks effectively

As Chinese medicine continues to receive more attention from the global scientific community, Hong Kong should beef up its efforts to ride this wave, especially when we have plenty of Chinese medicine practitioners who are unacknowledged experts. Currently, however, the growth of Hong Kong's Chinese medicine industry is hampered by the lack of resources dedicated to Chinese medical research and development and poor career prospects – starting salaries for new Chinese medical practitioners are significantly lower than supporting Western medical staff including nurses, physiologists and occupational therapists, not to mention registered doctors practicing Western medicine. The meager HK$77m allocated to Chinese medical research in the 2010 government budget also pales in scale when compared to that the HK$450 m dedicated to just the control of infectious diseases in Western Medicine alone. There is plenty of space to develop this industry and the hidden dragons whom are Chinese medicine experts in our World City to offer the best of both worlds to serve international patients as well as Hong Kong's ageing population. We recommend investing more into Chinese medicine research at universities and funding Integrative Medicine services in all public hospitals and clinics.

(6.2) Establish multi-disciplinary community centre and nursing homes targeted at elderly people

There will be plenty of demand for community centres and nursing homes as baby boomers age. We need to start developing these centres and training nurses and other allied health professionals to take care of our senior citizens. These measures should aim to enhance the quality of life of our senior citizens. While the life expectancies are one of the highest in the world, we do not want our senior citizens to be suffering longer.

With the aim to have better health for all, we should take the lead to subsidise preventive care to all eligible citizens and full vaccination program as recommended by the Centre for Disease Control. These investments are cost-effective in the long run as fewer citizens would fall ill.

(6.3) Explore feasibility of adopting part of Japan's Golden Plan for homecare

Lessons from Japan's Golden Plan—home care can save money; train homecare staff

Apart from hugely increasing supply of manpower through training locally and recruiting overseas, we can also curb demand for institutionalised healthcare provision by Japan's model of shifting institutionalised care into homecare. In 1989, Japan launched an ambitious ten-year plan with the goal of building a national infrastructure to care for its ageing population whilst reducing costs at the same time. The Golden Plan, as it came to be known, included a US$40bn investment, up four times compared to the previous decade. The program included a major shift from long-term institutionalised care in hospitals and nursing homes to home programs and community-based rehabilitation facilities. According to Professor Takashi Ohmori from Osaka University, the program saved the country up to 1.3% of their GDP. In the 1990s, the government encouraged stay-at-home care by increasing the number of home helpers from 40,900 in 1991 to 100,000 in 1999 and the number of nursing home beds from just over 144,600 to 240,000.Since then, Japan has planning its healthcare services for elderly people every ten years (and later on every five years), including targets to provide healthcare facilities enough for the elderly population upsurge.

(6.4) Establish mental health centres

Living in Hong Kong can be very stressful due to the fast pace of life and small apartments. With a population of 7m, an estimate of 1m to 1.7m (c. 10%) have a mental disorder and an estimate of 70,000 – 200,000 persons suffer from severe mental illness. According to the HKHA Mental Health Service Plan for Adults 2010-2015, there are around 40,000 (0.5%) diagnosed schizophrenia patients, 38,000 (0.5%) of affective disorders (depression & bipolar), 32,000 (0.5%) who are diagnosed to have neurotic, stress-related and somatoform disorders, and 8,000 (0.1%) diagnosed to have dementia.

We need to enhance support for mental illness and establish mental health centres to treat our increasing population of mental patients. The mental health centres will provide a space for discharged mental patients to rehabilitate in a less intense environment and integrate with the community under the supervision of professionals. It is clear that outpatient services are inadequate for mental patients, and our inadequate facilities had led mental patients to commit crime after they leave the hospital. WHO has identified depressive disorders to be the number one disability in the world by 2030, so it is critical that Hong Kong takes mental illness seriously and establish the community support and mental health centres to treat our citizens.

(6.5) “Return to Work” program for disabled citizens

We need more community support for disabled citizens to enter the labor market after full recovery. Many disabled patients, especially those after slip and fall accidents, leave the hospital recovered physically but unable to accept their new disabilities mentally. Currently, NGOs are providing support to disabled citizens in collaboration with private employers. The government can further support our disabled citizens through an official ‘Return to Work’ program to help disabled citizens regain self-confidence and return to the community with an appropriate job. Ultimately, the aim of medical care is to bring our patients back into our community and thus, we should see that patients do indeed leave the hospital and continue living at an acceptable quality of life.

(7) Promote Medical Tourism

Build them and they will come-- Structural demand for HK medical service will likely exhibit itself via a J-curve ascent– the next “locusts” issue

The growing affluence of China, especially in our immediate hinterland comprising the 104m-peopled Guangdong Province which boasts both the most populous and richest province and the country’s highest-income city of Shenzhen, will create huge demand for Hong Kong medical, especially surgical services. This demand will likely follow the J-curve pattern experience in other segments of our economy, from retail to finance.

Future upsurge in demand for medical services is a no brainer, and we are only at the early stages of this pattern developing. Given the bad experience with maternity issues, with only 150,000 more mainland mothers coming in over the past five years, it is more than likely that worse is to come when our private healthcare is swamped by seekers of service in other disciplines. The correct approach is to welcome this opportunity to grow Hong Kong’s healthcare industry, by significantly adding to capacity and capability of our medical schools and by recruiting overseas talents at the same time.

We can promote medical tourism by following successful examples from Singapore. The Singapore government demonstrated its commitment to develop into a medical hub by establishing the Singapore Medicine in 2003, a multi-agency government industry body targeted at attracting medical tourists. This initiative launched by the Ministry of Health and the Tourism Board successfully leveraged on Singapore' s high quality medical services, actively marketing and reinforcing Singapore's brand as the leading healthcare provider in South East Asia. Singapore Medicine actively promotes to potential medical tourists and has a marketing budget to sponsor publications such as "Patients Beyond Borders" and hold industry conferences. Their marketing strategy has helped them yield the Best Medical Wellness Tourism Destination award by TravelWeekly (Asia) for two consecutive years in 2007 and 2008.

Singapore has a clear objective to develop into Asia's medical hub

The incentives together with the private expansion in Singapore's medical care drew more than 400,000 medical tourists in 2006 which is double of the medical tourists in 2003. The composition of medical tourists is also significantly diversified. Over 10% of medical tourists come from countries with advanced medical care. Canadian, American and British medical tourists, accounting for 9% of medical tourists are willing to 8-20 hours long-haul flights for Singapore's medical services. On average, a US medical traveler to Singapore pays a mere third of what similar treatment would cost back home.

Singapore enjoys close to 30% growth in total expenditure on medical services in 2004-2008

The Lion City has a target to more than double its medical service coverage to foreign patients and serve 1m foreign patients by the year 2012. Frost & Sullivan reported Singapore's foreign patients hit some 660,000 in 2009, a 3% gain from 2008. 2010 gained some 700,000 medical tourists, soon to reach its target of 1m patients by 2012.

Since 2006, Singapore has planned to more than double its medical services capacity to serve 1m foreign patients by 2012

The Singapore government recruits foreign-trained doctors actively

Foreseeing the upcoming medical demand, the Singapore government actively recruited 3,500 doctors (doubling its doctor supply) over the course of ten years. In 2000, a Singaporean doctor had to care for on average 70 patients, and this figure dropped by 28% to 50 in 2010 with the Singaporean government's proactive role in in healthcare manpower planning. Since the Singaporean government expanded the list of approved foreign medical schools from 23 to 140 in 2003, the number of doctors grew by 5% on average each year.

Action 2: Build World-Class Medical Hardware

(8) Increase hospital capacity by 5,000 hospital beds (or 14% of our current 35,525 beds) from building new hospitals and expanding existing facilities

The public sector's share of the overall healthcare system is likely to rise when the "service gap" widens at an increasing rate in the coming ten years. Currently, 43% of Hong Kong's population, or 2.9m people are entitled through their employment arrangements to use private medical services. Only approximately 35% of Hong Kong's population, or 2.4m people are covered by Private Health Insurance purchased by themselves. With the upcoming retirement tide, many of the 3m people covered by company insurance will be uninsured. Only one or two insurance companies in Hong Kong offer inpatient insurance schemes for those who are 65 or above, and joining a plan after 65 will incur around 50% more charges, a high deterrent for people to purchase their own insurance plans.

Currently only 38% of those aged 55-64 have private healthcare insurance. In other words, there will be 500,000 people retiring over the next decade who will very likely be uninsured and reliant on public healthcare. This group alone will add 80% to the number of patients our public hospitals are serving now. If we do nothing, public hospitals will have waiting lists almost twice as long as those we have now ten years hence. The case is clear: we need either to build more public hospitals to accommodate this surge, or divert some of these users towards private services which also have to grow rapidly.

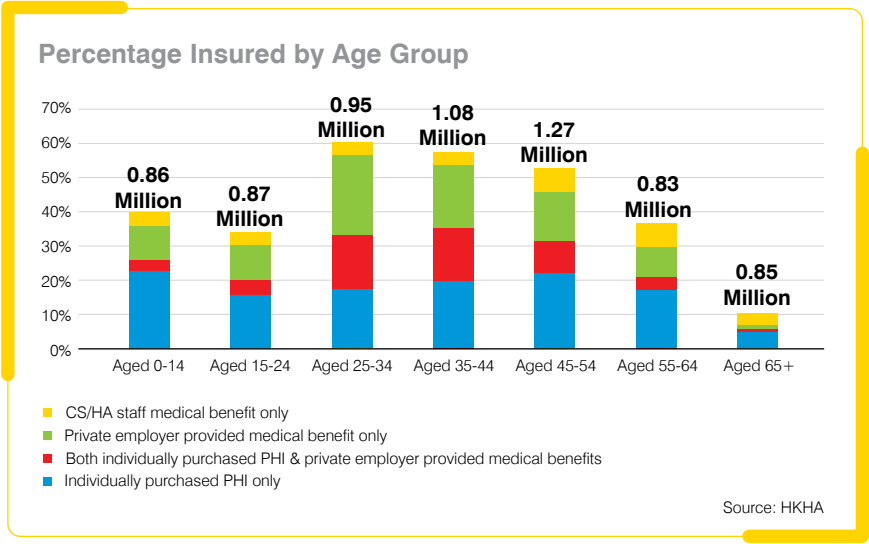
Some 62% of the boomers group aged 55-64 do not have private insurance and will likely rely on public provision as they retire over the next ten years – this will add 80% to our current load

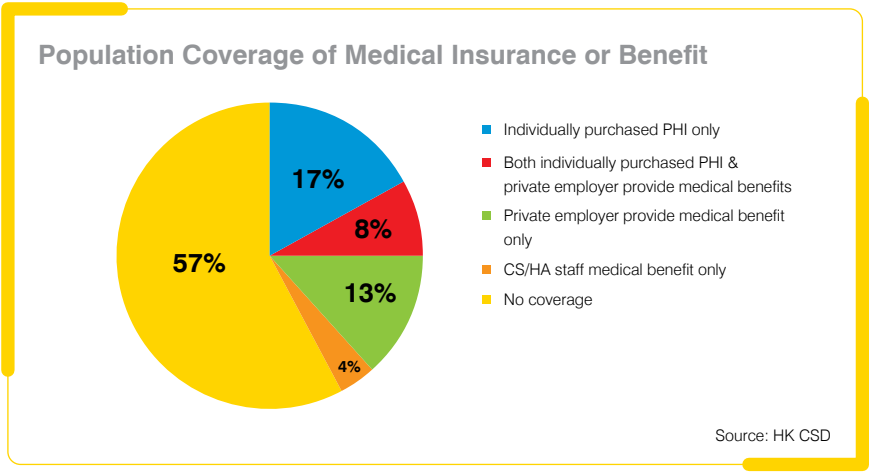
As the current shortage in capacity grows increasingly acute over the coming decade, there is little point in hoping we can shift part of public sector's patients to the private sector since the private sector will have to recruit from public sector for doctors to enable its growth. Thus increasing the supply of doctors from local and overseas talent pools must be the top priority for the coming ten years. A discussion as to how much of the new capacity can be shifted to private sector, given that the public sector will have to accommodate an 80% increase in non-insured boomers in the coming decade, will only marginally mitigate the public purse's burden in providing cover. A recent example of this logic is the decision by Tseung Kwan O Hospital to delay the opening of its maternity ward on the basis that it will draw doctors and nurses from the other public hospitals to support its use. Hence, until more doctors can be found from beyond the existing pool, it is not effective to bring on the facility.

Given the gaping shortage of doctors ahead, our priority must be over creating overall capacity as opposed to working out precisely how to split the supply function between the public and the private sectors

A practical alternative worth exploring is to step up significantly the "premium" category of public hospital bracket. A case can also be made that at times of severely strained capacity, given the higher "moral hazard" in the private sector (which may create more work than necessary), the bigger the public sector's share of the total healthcare system, the more efficient overall provision can be. There is also scope for a system of means testing for public hospitals so that for those families and patients who can afford a higher medical bill, less subsidies are given. Currently, the recovery rate for the cost per patient is a paltry 7%. We should revamp the public healthcare system into different classes and allow for better financial returns from providing middle-class patients, who are willing to spend more money, with premium services such as a private room and menu selection.

Help those who need it: a more equitable charging system which levies higher fees on the better off can improve the cost recovery in public sector from the paltry 7%





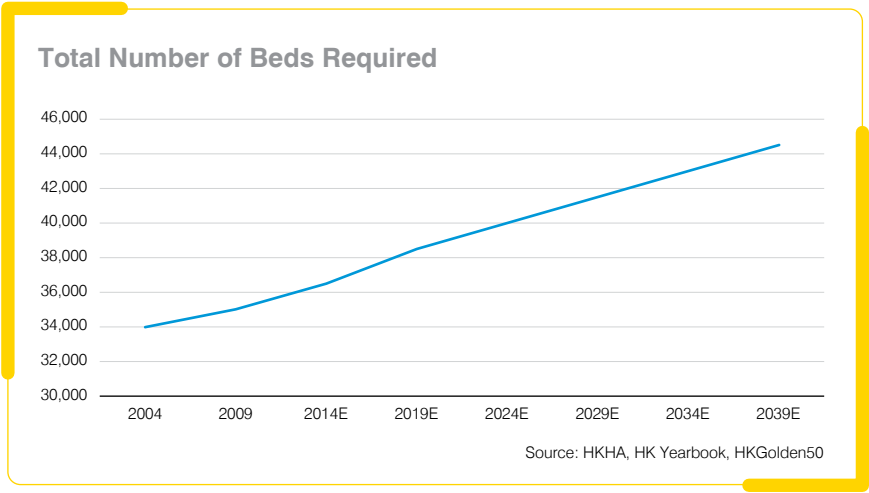
(8.1) Build new public hospitals

The number of hospital beds in Hong Kong increased a mere 1% in the last decade. When our population has grown 6% larger and ten years older over the past decade, the growth in hospital capacity simply has not kept pace, even after the amelioration of new technology and treatment methods. By 2014, we would need some 270 extra beds (1%) and c. 3,000 (10%) more by 2019. This latter shortfall equates c. 10% of the current beds supply or twice the beds at Queen Mary Hospital. In other words, we need to provide space equivalent to the size of two Queen Mary Hospitals, or eight Tseung Kwan O hospitals to accommodate for the increase in demand for hospital beds in the coming eight to ten years.

At our current pace of providing new beds, we will be 3,000 beds (10%) short by 2019, equivalent to twice the number of beds at Queen Mary Hospital

The biggest problem we face is the long delay in producing a hospital. Dr. Lo Chung Mau, Chair Professor and Head of HKU's Department of Surgery, mentions that it will take ten years to complete Queen Mary Hospital's reconstruction. If it takes a similarly long lead time to produce a new hospital, we must start producing according to our community demand ten years out ie 2022. With the population increasing to 8m (+14%) by 2024, we will need to add at least 5,000 beds (+14%) in the next 12 years, and c.9,000 (+29%) in 30 years.

Taking into account the long lead time of ten years to produce a new hospital, we must target c. 5,000 beds (+14%), a scale equivalent to three Queen Mary Hospitals in the coming decade



If we maintained our current production of beds provision, which is only around 200 beds per decade, our beds provision would fall short by 20% in 20 years. The government needs to increase at least 400 beds to 600 beds per year. The existing expansions and reconstruction should take this upsurge in future demand into account. The reconstruction plans of Kwong Wah and Queen Mary Hospital, announced a few weeks ago, are not adding beds at all. This looks unreasonable given the existing shortage and the inevitable pick-up in demand in the next two decades.

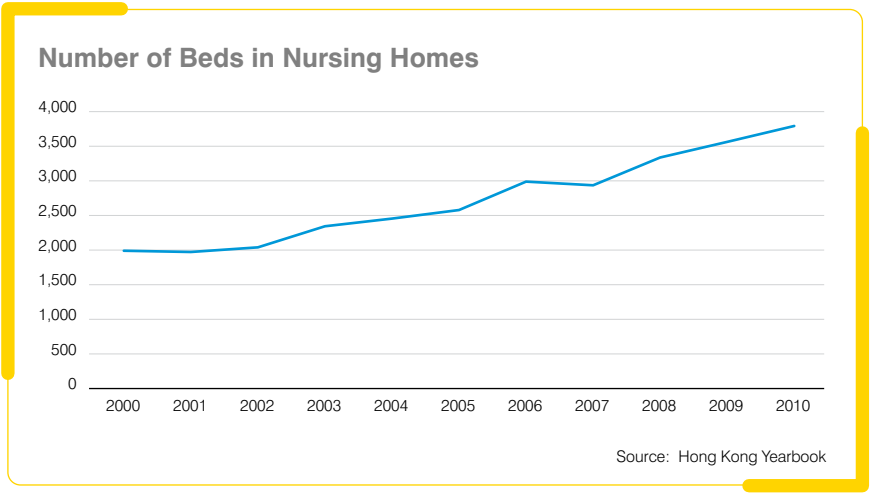
Just as the costs of the Shatin-Central (rail) Link surged some HK$30bn to HK$80bn after nearly three years' delay, in the current environment when we have high domestic generated inflation of 5-8% but sagging global prices for building materials, it pays us to start building out our medical hardware as soon as possible. The delay in the Shatin-Central Link, for instance, has cost the equivalent of some four Queen Mary Hospitals. The cost for this new capacity of c.5,000 beds is estimated at HK$22bn (present cost) but as the cost will be incurred over a long period, the actual spending will exceed this the further out the construction is carried out. To be prudent, we have assumed final cost of HK$20bn accounting for a 6-8% inflation.

We should build capacity as soon as possible to take full advantage of low material costs and before construction inflation erodes our budgets

(8.2) Build nursing homes and add hospital beds to badly undersupplied districts

There are only fewer than 4,000 beds at the 46 registered nursing homes in Hong Kong, yet the waiting list for such facilities is already at 6,500 as of 2012, with an average of three years' waiting time. Some 75% of these elderly people die before the government could attend to their death bed's wish—a simple request for a place to take care of them. Nursing homes are social assets that are urgently in need, especially when they can alleviate the bed space taken up by elderly patients in hospitals. Currently, 40% of patients staying at public hospitals are elderly people. More nursing homes offering professional medical attention to the elderly population can divert the milder geriatric cases to nursing homes and better optimise our hospital space for those who have more urgent or medically more serious demands.

Some 75% of the elderly people on the waiting list for nursing homes died while waiting



(8.3) Increase private hospital capacity

Private hospitals serve 20% of total inpatients in Hong Kong, with only 15% of bed space. As mentioned earlier, the inadequate bed space has forced some doctors to refer their patients back to the public system. Although there are potential moral hazards in expanding private medical provision, as the doctors are often far more knowledgeable than the patients and those that are unscrupulous can steer their patients to undergo and pay for unnecessary procedures, private hospital provisions are integral part of a world class healthcare system as they offer choice to those who can afford it.

The government has reserved four pieces of land since 2009 for private hospitals. Yet after three years they are still untouched. The delay in action for two years has already caused an 8% increase in cost thanks to inflation. For this amongst other reasons, the original 10+ bidders who expressed interest in the Wong Chuk Hang and Tai Po area have now narrowed down to two. The government needs to release land as soon as possible to catch up with the demand for medical services and hedge against the inflation induced medical expenses spike. The tenders ask bidders to provide at least 300 beds upon commencement of Hospital operation, sparing half of its service capacity to Hong Kong residents, at least 30% servicing local patients through packaged charges, and restraining the number of obstetrical beds to 20%.

	Wong Chuk Hang	Tai Po
Gross Floor Area	28,050 - 46,750 sqm	38,742 - 64,570 sqm
Land Area	27,500 sqm	54,851 sqm
Beds	>300	>300

(8.4) Develop medical hub at Gateway To The World (GTTW)

A medical centre to expand the capacity of private services kill two birds in one stone

We mentioned in our third report that a multi-purpose complex can be constructed in the current golf course situated right next to the Chek Lap Kok airport. The complex, GTTW as we name it, can serve as a one-stop medical complex for international travellers who wish to use our World-Class services. This can cater to our mainland demand for Hong Kong's medical services and displace the demand and alleviate the pressure on our local hospitals, both public and private. The 1m sf medical centre can provide 400 beds, twice the size of Adventist Hospital.

With the abundance of space at GTTW (with a gross floor area 35% larger than St. Teresa's Hospital, currently the largest private hospital in Hong Kong by area), the medical centre can be much more than an ordinary hospital – it can be built into a comprehensive medical tourism destination that can provide one-stop healthcare solutions for every age group of customers. In addition to hospital beds and surgical rooms, "recreational healthcare" facilities eg health spas, massage centres, water parks and yoga clubs can certainly provide a more pleasant and less stressful experience when compared to a regular hospital setting. The medical centre can not only serve the purpose of freeing up supply of local hospital service for locals in need, but it can also position Hong Kong as a prime medical tourism destination alongside Singapore, a current leader in the field. The ensuing influx of demand for Hong Kong medical service can be a stimulant to our already world-leading medical research industry.

(9) Replace and upgrade medical equipment over ten years old

Spending 6% of one year's fiscal surplus can bring all our equipment older than ten years up-to-date and instantly boost medical productivity

Only 4% (around HK$1.6bn) of HKHA's total expenditure of some HK$40bn is spent on medical equipment. With the government's one-off funding in the two fiscal years to 2009/10 of HK$1.2bn, or a mere 1% of our public surplus in 2012, HKHA was able to reduce major equipment over ten years old from 42% to 36%. With the rapid advancement of science, technological obsolescence sets in quickly and it is likely that anything new may be multiple times more effective than equipment over ten years old. When servicing capacity is severely strained, replacing old equipment must be a very quick way of extracting productivity, especially when a 1% spending of a year's fiscal surplus can already lower old stock by 6% and a 6% spending can remove all old stock.

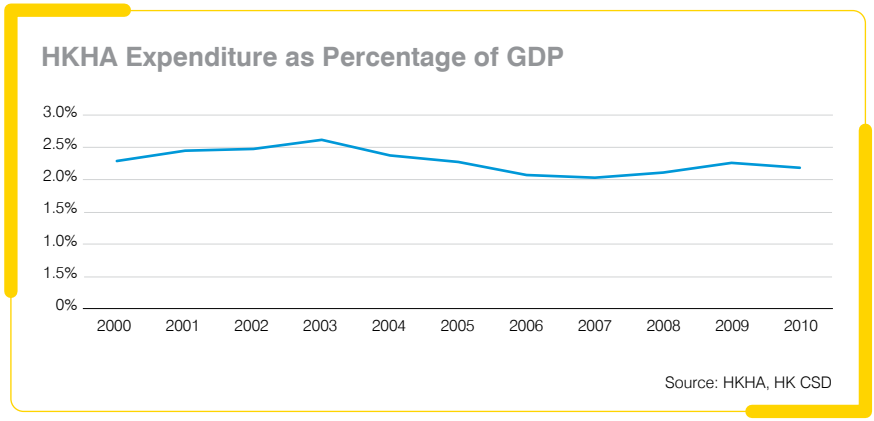
Medical equipment bought by HKHA with one-off fiscal funding from 2007/08 - 2009/10

Equipment Group	Cost (HK$m)
Radiological Equipment	522
Physiologic Equipment	91
Ventilator	46
Anaesthetic Machine	41
Pathology Equipment	82
Nuclear Medicine	17
Surgical Equipment	59
Operating Table	20
Renal Equipment	10
Endoscopic Equipment	29
Sterilizer	20
Telephone System	59
Ophthalmic Equipment	12
Radiotherapy Equipment	144
Other Equipment (e.g. Speech diagnosis unit; Walker, Lift)	128
Total	**1,280**

Source: LegCo

(10) Expand facilities of HKU and CUHK medical schools

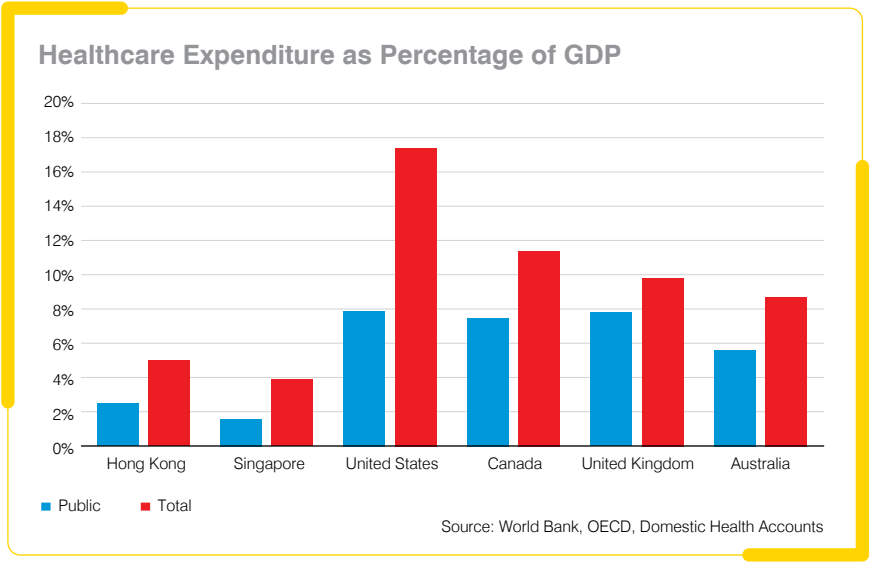
To accommodate the increase in medical student intake from 420 to c. 800 per year, we must scale up our medical school facilities and expand the teaching capacity of HKU and CUHK medical schools, if not potentially building another top medical school. We should install state of the art equipment and hire world-renowned professors to teach our next generation of aspiring doctors. Our potential to become a World-Class medical hub that produces top notch medical practitioners and provides pioneer knolwedge resources can then be realised.



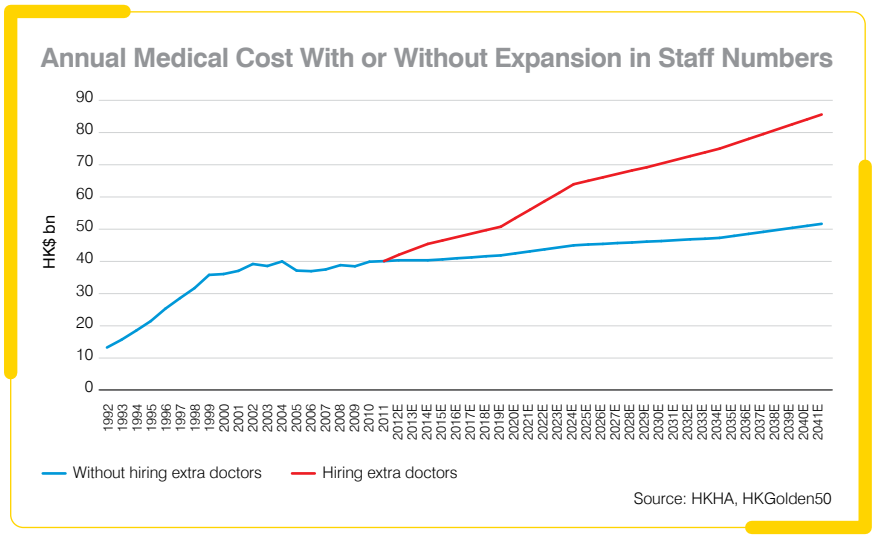
Investing in both our public and private healthcare capacity and capabilities is a win-win. We should spend appropriately to defend the core values of our system—to respect the older generation who have contributed significantly to our society, and stray away from denying our elderly people from healthcare out of financial reasons, especially when we are affluent enough to fund our medical system. Currently, our public hospitals' expenditure accounts for only c. 2.1% of our GDP (i.e. c. HK$5,400 per capita). This figure has been dropping since 2003 and slightly picked up since 2007. As mentioned earlier, our healthcare spending per capita is one third of USA, two thirds of UK and 72% of OECD average.

Spend appropriately to defend one of our core values-- we will not let senior citizens be denied from healthcare out of financial reasons, especially when we can afford it

Our total healthcare expenditure is 5% of our total GDP, and public expenditure stays low at 2.5%, when most developed countries (e.g. United States, Canada, United Kingdom and Australia etc.) exceeds 5% in their public healthcare expenditure as a % of GDP.



Our total and public healthcare expenditure as % of GDP is amongst the lowest in the world

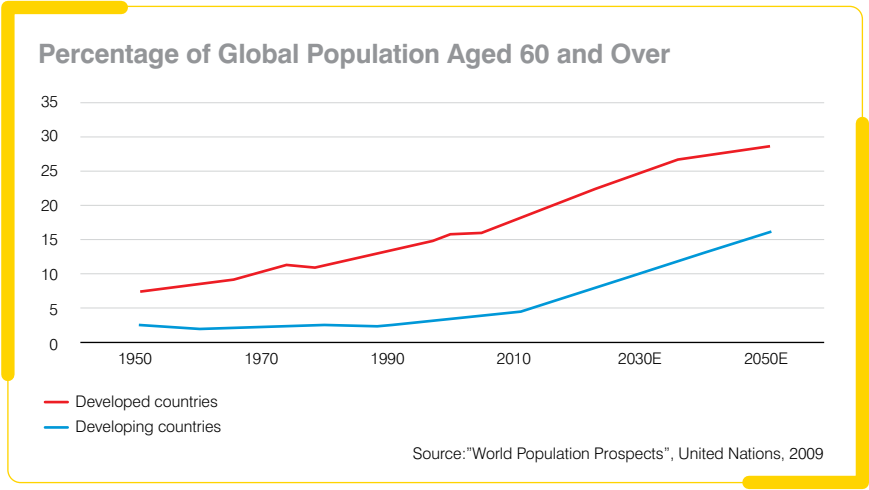


If we hired adequate amount of doctors, our healthcare expenditure will be up HK$8.8bn (or 0.5% of 2011 GDP) by 2019, HK$22.9bn (or 1.2% of 2011 GDP) by 2029 and HK$31.9bn (or 1.7% of 2011 GDP) by 2039

If we hired the adequate amount of doctors in the public system, our healthcare expenditure will be up HK$8.8bn (or 0.5% of 2011 GDP) by 2019, HK$22.9bn (or 1.2% of 2011 GDP) by 2029 and HK$31.9bn (or 1.7% of 2011 GDP) by 2039. Not only can we afford such spending, the positive externalties generated from investing in our healthcare industry are tremendous. A bigger medical service capacity is undeniably good for the sick and older population, it is also beneficial to the active working population, since the labour-intensive healthcare industry can spin off more jobs. The ready availability of quality healthcare services also contributes to a healthier and happier population.

Positive externalities can also spin off from healthcare investments

Hong Kong has all the potential to develop the medical sector into one of our pillar credibility industries. We have the technology, the talents, the facilities, and the reputation to offer World-Class medical services. All that is lacking is our commitment to scale this up into an industry where millions of jobs can be created. We need to build up our medical capacity to serve our ageing population's demand as well as grasp the inflow of the next booming industry of the century, and we need to do it fast. With the global ageing population speeding up, not only Hong Kong is not alone and will soon hit a shortage tide in doctors. It is only to our advantage if we expanded our medical capacity now rather than later. The solution is simple—we need to start building our medical hardware – more hospitals, nursing homes, medical centres, while actively growing our medical personnel by importing and training medical talents.



We sincerely hope that you find this report informative and usefuland has helped you to understand better both the huge potentialopen to Hong Kong in the coming 50 years and the challengesand opportunities that we face, as a community, in these pivotal Golden 5 Years. We are eager to know any comments or suggestions that you may have about our report. Please let us know your thoughts by emailing friends@hkgolden50.org and please stay in touch through our website www.hkgolden50.org.