

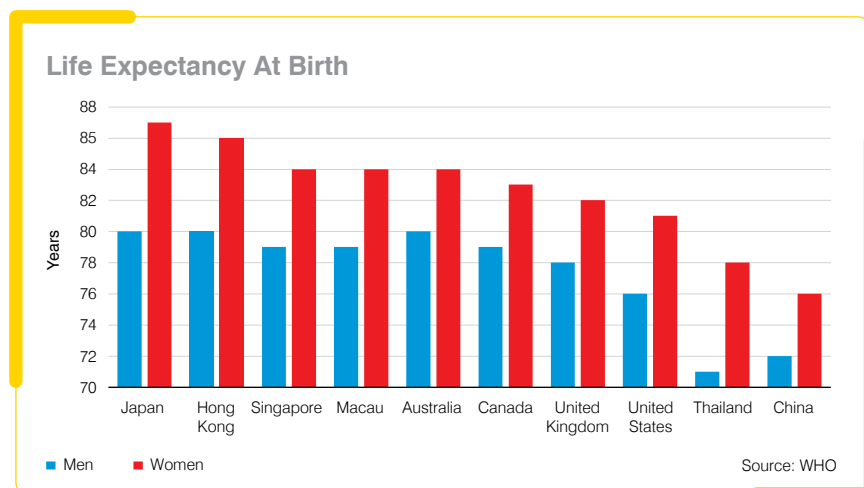
3: Hong Kong has Great Potential to Become a World-Class Medical Hub

(1) Hong Kong has the best medical care to offer: High quality at a low cost

(1.1) Best rankings: Hong Kong carries some of the world's longest life expectancies, lowest infant mortality rates, and highest cancer and organ transplant survival rates

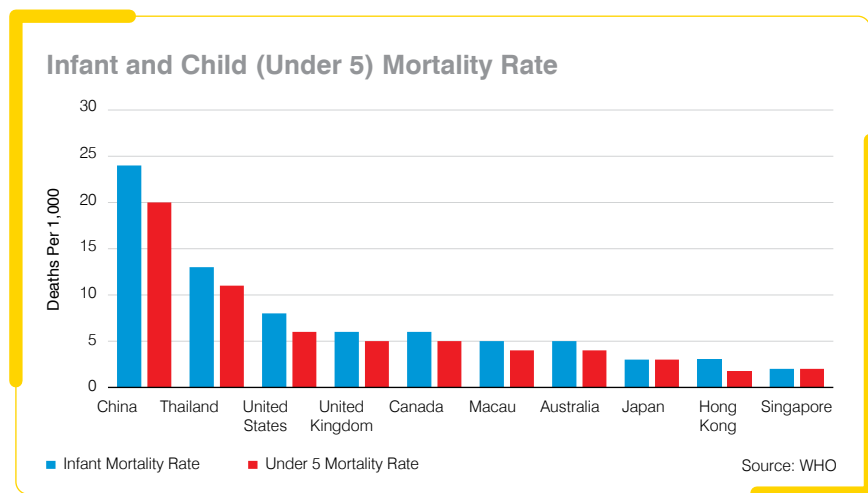
Despite all the hardware and software constraints mentioned in Section 2, Hong Kong's medical care is top-notch, and we are ranked top in many areas. Our male life expectancy at birth is the highest in the world (80), while females' (86) ranks second, closely behind Japan (87).

Our medical potential needs to be unleashed—we have the skills and quality care, yet poor planning in hardware and software are limiting our development as a service exporter



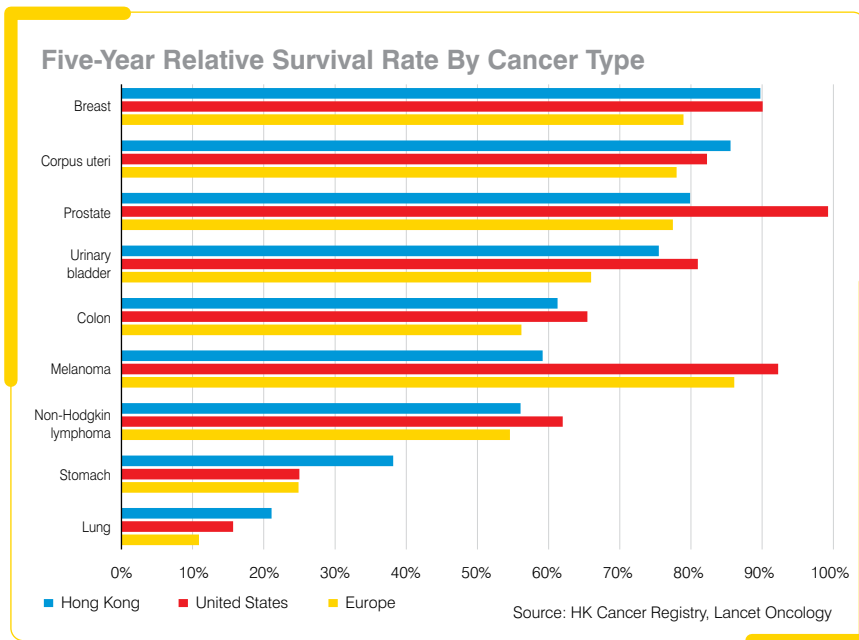
Infant mortality rate is another key indicator of quality medical care. Hong Kong has the world's lowest child (under-5) mortality rate at two per 1,000 births and infant mortality rate is second lowest at three per 1,000 births, closely behind Singapore.

World's lowest child (under-5) and second lowest infant mortality rate



Hong Kong is also blessed to have a top-notch team of doctors in curing cancer. Breast cancer, corpus uteri cancer and prostate cancer patients, all among the top ten most common cancers in Hong Kong, enjoy higher five-year survival rate compared to their European and North American counterparts. The five-year survival rate of breast cancer in Hong Kong is 89.8%, just 0.2% less than the United States, one of the best medical hubs in curing breast cancer. Hong Kong beats Europe and the US by 13 percentage points in five-year survival rate in stomach cancer, the city's 6th most common cancer. Lung cancer and corpus uteri cancer also takes the lead in survival rates.

Cancer survival rates trumps Western countries



If we rank the top five most common cancer survival rates, Hong Kong follows closely behind the United States in most cancer types, and outperforms Europe in all categories. The results are as follows: (1=Best, 3 = Worst)

Among the top five most common cancer types, Hong Kong outperforms Europe and follows closely behind the United States

Survival Rate Rankings of Five Most Common Cancers in Hong Kong

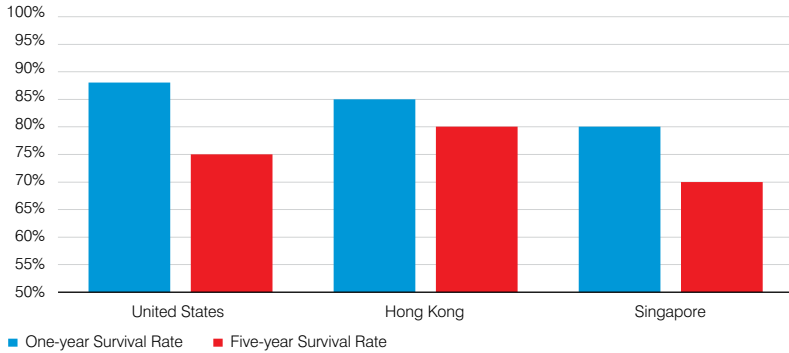
	Hong Kong	United States	Europe
Colon	2	1	3
Lung	1	2	3
Breast	2	1	3
Prostate	2	1	3
Liver	2	1	3

Source: HK Cancer Registry, International Agency for Research on Cancer, American Cancer Society

In the United States, about 88% of patients survive the first year after a heart transplant surgery, and 75% survive for five years. Hong Kong's heart transplantation one year and five-year survival rates were of similar standards, standing at 85% and 80%, respectively in 2007. By 2011, the one-year survival rate increased to 92%, surpassing that of the United States.

Hong Kong's organs transplantation achieves leading survival rates

Heart Transplant Survival Rates

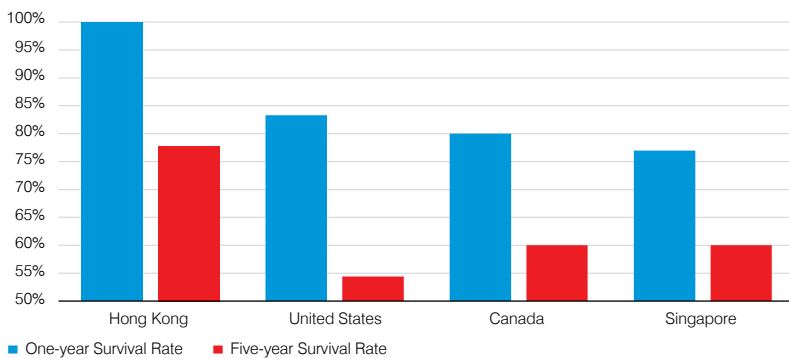


Source: Singapore Heart Foundation, Hong Kong Society of Transplantation, National Heart Lung and blood institute

Hong Kong’s lung transplant again takes the lead in global rankings and outperforms the United States and Canada. The survival rate reaches 100% within a year, and 78% within five years of the transplant. Such rates are more than 20 percentage points higher than Singapore’s, the city that is trying to develop itself as a transplant medical hub. In March 2009, the Singapore government legalised the organ sales, which attracted many foreigners to the Lion City’s state of the art hospitals. Hong Kong may not be an organ transplant centre, yet its deepcraft in skill-intensive operations is still better than Singapore’s.

Lung transplant survival rate is the highest worldwide

Lung Transplant Survival Rates



Source: Scientific Registry of Transplant Recipients, Public Health Agency in Canada, SingHealth

(1.2) Best medical schools: HKU's medical school ranks top two in Asia and CUHK and PolyU's World-Class faculty produce international award-winning medical research and cures

World rankings show Hong Kong has the best medical services to offer-- not at all surprising given that we have a solid foundation in medical research and education. Hong Kong's deepcraft in medicine originated over 150 years ago. Hong Kong's first medical school—the Hong Kong College of Medicine for Chinese, or the soon-to-be University of Hong Kong's medical faculty, was established in 1887. Founder of the College, Sir Patrick Manson, a doctor dubbed as the “Father of tropical medicine”, the same man who founded the London School of Tropical Medicine brought with him not only his breadth of knowledge on tropical medicine, but also the vision to develop Hong Kong into a “centre and distributor, not for merchandise only, but also for science”. These words were taken into action when the school became the pioneer centre for tropical medicine in Asia. Medical researchers from around Asia travelled to Hong Kong for the school's reknown tropical medical expertise.

Up till today, medical education in Hong Kong is still upholding its World-Class quality that it boasted back a Century ago.

In the 2010-2011 clinical, pre-clinical and health universities, Times Higher Education ranked the Medical Faculty of Hong Kong University at 22, making Hong Kong the host of Asia's best medical school of the year. University of Tokyo overtook HKU in 2011, but Hong Kong still maintained its lead ahead of Singapore.

Hong Kong's medical school was established 150+ years ago

Our medical education tops Asia

Medical School	2010	2011
University of Hong Kong	#22	#34
University of Tokyo	#37	#32
National University of Singapore	#39	#41

Source: Times Higher Education

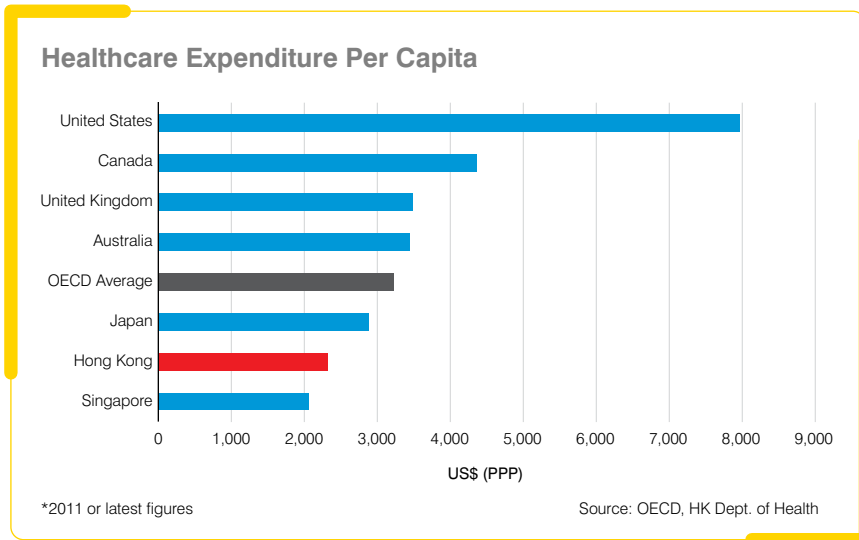
Hong Kong's medical research is also a pioneer in the field. HKU's medical faculty has over 140 highly cited papers which are among the top 1% in the world. Its findings are impactful in medical breakthroughs, like discovering the use of the Chinese herbal medicine 'gouqizi' to alleviate symptoms of Alzheimer's Disease. The city's other prestigious medical institution Chinese University of Hong Kong (CUHK) celebrated its 30th anniversary this January also has a strong medical research team and made important breakthroughs such as inventing new tools to detect Kidney Disease in type two diabetes patients. CUHK's proud faculty member Professor Rossa Chiu of the Department of Chemical Pathology's breakthrough piece in clinical applications of non-invasive prenatal diagnosis gained prestigious international awards-- International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) Young Investigator Award and the 2011 Professors' Prize given by the Association of Academic Heads of Clinical Biochemistry Departments in the UK.

Recently in April, 2012, Hong Kong's medical inventions snatched away three prizes out of the 1,000 inventions debuted at the 40th International Exhibition of Inventions in Geneva. Polytechnic University's joint product with Rehab-robotics the "Hand of Hope" won the Grand prix of the exhibition. The portable robotic device that helps stroke survivors relearn how to move affected hand using their own muscle signals, a breakthrough invention in the field. Professor MM Zheng from Polytechnic University snatched away another gold award with his radiation-free assessment of scoliosis using 3D ultrasounds. Professor Marcus Yuen and Dr Joanne Yip's Hygienic Socks also won a gold medal for its rapid cure (two weeks' treatment) for athlete's foot by using Antifungal Microcapsules for patients. This HK\$1m R&D cost spent on the award-winning antidote is a case in point that just a little bit more funding in our medical R&D can stimulate and bring our local innovation to its full potential.

Our medical schools equipped with top faculty produce World-Class research and cures to diseases

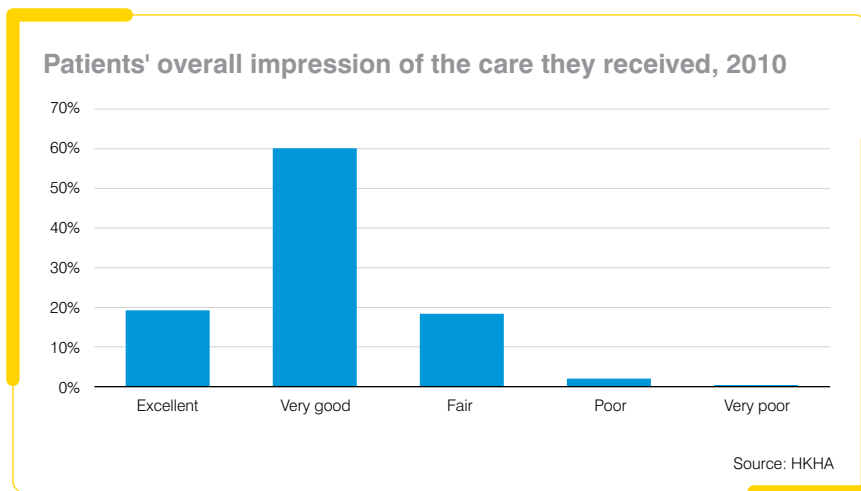
Little did we know that Hong Kong produces international award-winning in medical technology and innovative cures Little did we know that Hong Kong produces international award-winning in medical technology and innovative cures

(1.3) Quality services at lowest costs: Our healthcare expenditure per capita is amongst the lowest in developed countries (a third of USA, two thirds of UK, 72% of OECD average)



Quality healthcare can be easily bought; Quality healthcare that comes at low costs is truly World-Class in nature. The cost of Hong Kong’s medical services is amongst the lowest in developed countries. Our total healthcare expenditure per capita is one third of the United States’, half that of Canada’s, two thirds of United Kingdom, and 72% of OECD average. Hong Kong’s standards are of equivalent quality as these developed countries, if not better. This shows that we are clearly a World-Class medical system that not only offers quality healthcare delivery, but also at a relatively much lower budget.

(1.4) High patient satisfaction: Over 80% rank the public hospital system as “Very Good” & “Excellent” and only 3% were dissatisfied with HKHA’s services which account for c. 80% of our city’s inpatient numbers



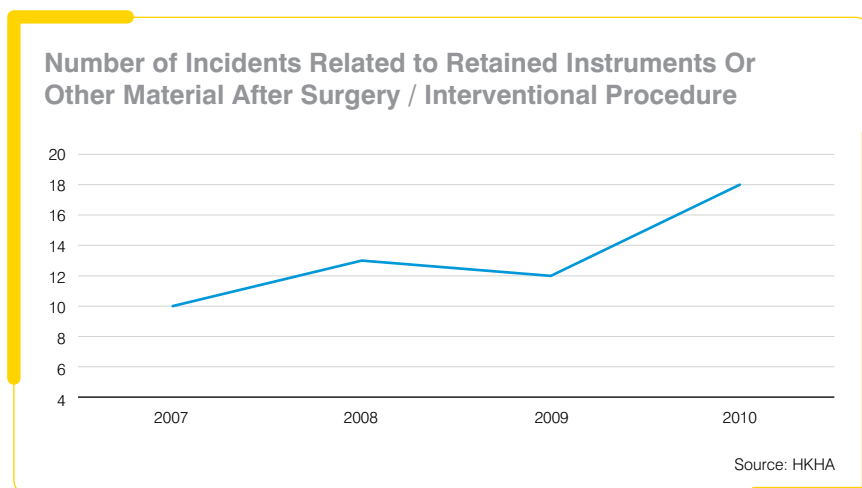
Hong Kong’s public hospital services are also very well received by its patients. The patient satisfaction survey 2010 conducted by the HKHA indicated a c. 80% satisfaction rate for all medical services received. 95% of patients were satisfied with hospital facilities and 88% of all patients were confident in medical staff quality. The only rating that achieved lower scores were the availability of staff. 25% of patients believed that there were not enough nurses at the hospital.

(2) Cracks in the system: Increasing medical blunders and long waiting times are fast undermining our excellent system

(2.1) Medical Blunders are on the rise

With state-of-the-art medical knowledge by the top medical research school in Asia and a team of professional and dedicated doctors who weathered tough battles like SARS and the H1N1 epidemic, Hong Kong's doctors and medical researchers are undoubtedly competent guardian angels of the city's health and well-being. In recent years, however, doctors have been committing more mistakes than before. HKHA's sentinel events (serious medical blunders) increased by a third from 33 cases in 2009 to 44 in 2010, and from 2009-2011, there were eight more (or 60% more) cases of retained instruments or other material in patients' bodies after surgery. As for cases related to medical blunders (less serious than sentinel events), the HKHA had to fork out HK\$40m to some 600 patients over the past five years.

Shortage of manpower is straining our top-notch system

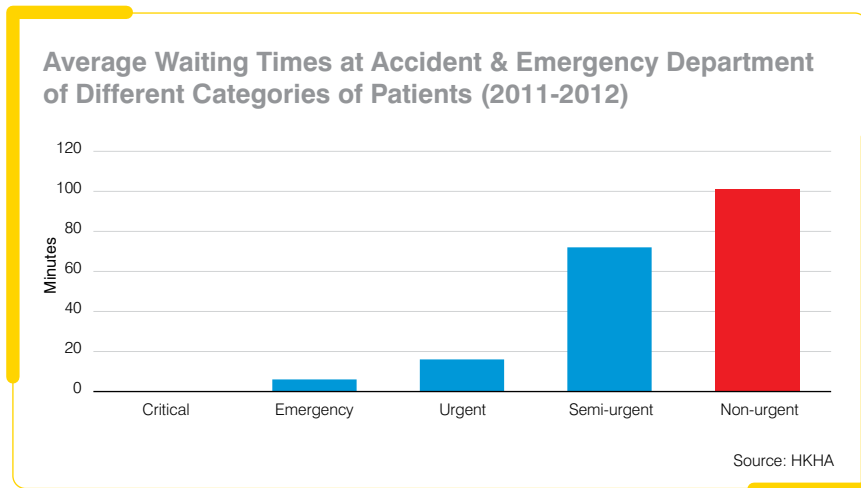


The ever-increasing workload for doctors is ringing a bell, and this needs to be addressed as soon as possible to prevent lower morale. The record number of turnover also indicates that public hospital doctors are not as dedicated to the public health system as before—a dangerous trend if this were to continue, as public hospitals account for 85% of inpatient services.

(2.2) Long waiting times will delay treatment and jeopardise full recovery

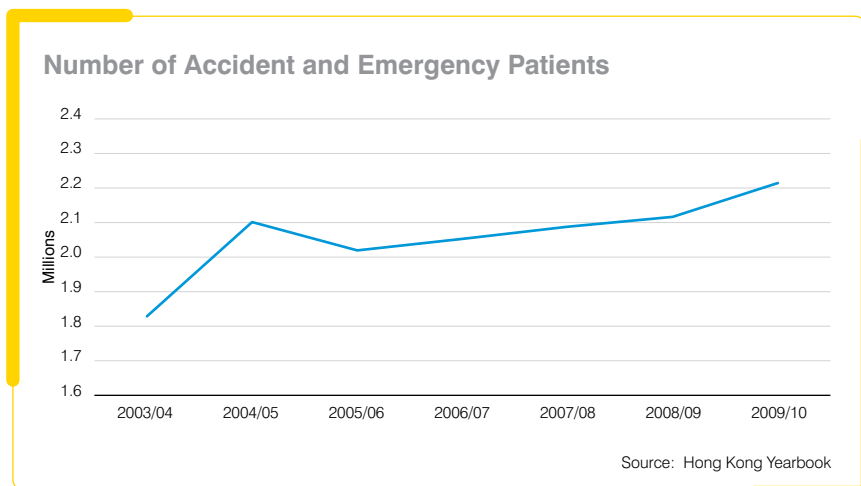
For a non-urgent case admitted into the A&E department, the median time for waiting is close to two hours. During peak season, many patients labeled as non-urgent cases have to wait for at least 3.5 hours for medical attention.

Waiting times in Accident & Emergency (A&E) departments go up to 3.5 hours



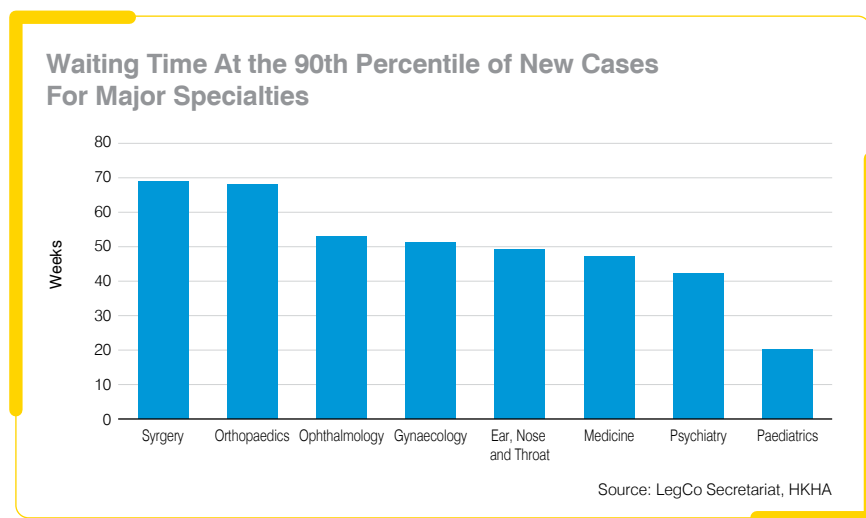
While A&E patients are continuously on the rise (c. 3% p.a.), many new trainees in A&E quit the department after one or two years of training because of the heavy workload. Last year, the HKHA opened 42 spots for new recruits at the Accident and Emergency Department, yet only 25 places were filled when some 20 doctors leave the system. As of January 2012, the HKHA estimated a shortfall of 30 doctors in the A&E department. This trend is especially straining our system, as A&E is the frontline defense of our medical system. Our access to acute medicine will be severely restricted if this trend continues.

Culprit of long waiting time? Doctors supply is not meeting demand: as A&E patients increases by 22% between 2003 and 2010, less doctors are specialising in A&E medicine



A similar case applies to outpatients' waiting list. Patients on "non-urgent" cases have to wait for months or even years to get treatment. The waiting time for specialist treatment at public hospitals is long, especially for cases labeled as "non-urgent", ranging from cataract surgeries to orthopedics treatment. Four out of eight specialties' waiting times are over a year long.

Waiting time is long for specialist outpatient treatment as well



Kowloon East and Kowloon West residents in particular, have to wait especially long for medical attention, and the issue needs to be addressed urgently, as the two districts are amongst the most densely elderly populated areas. Tuen Mun Hospital, one of the hospitals situated in the New Territories West Cluster with the least experienced doctors, urology patients have to wait for six years before they can receive medical attention, while patients waiting for specialists in the internal medicine and geriatrics department, mostly elderly people have to wait for over ten months. 90% of the waiting list exceed 20 weeks.

Shortage of manpower crowds the waiting list to as high as 336 weeks for outpatients

Waiting Time at the 90th Percentile in Major Specialties

Specialties	HK East	HK West	KL Central	KL East	KL West	NT East	NT West
Ear, Nose and Throat	23	28	11	106	42	80	52
Gynaecology	20	21	29	144	31	70	39
Medicine	46	29	36	47	57	64	48
Ophthalmology	41	17	45	90	34	99	45
Orthopaedics	42	36	49	113	101	83	49
Paediatrics	7	29	12	31	13	32	14
Psychiatry	19	58	25	55	32	76	29
Surgery	50	56	39	129	103	70	34

Source: HKHA

Given that our medical system has enormous potential to become a World-Class medical hub with our excellent medical expertise at low costs, it is a shame to give away our quality healthcare solely because of insufficient supply in hardware and medical personnel. Especially when our government has mounted HK\$669bn in its fiscal reserves, we have plenty of resources to fix the existing cracks in our system. In our next section, we will discuss three major actions to fulfill Hong Kong's destiny as a World-Class Medical Hub.

With HK\$669bn in our fiscal reserves, we can easily fix the cracks in our healthcare system and to become a World-Class medical hub