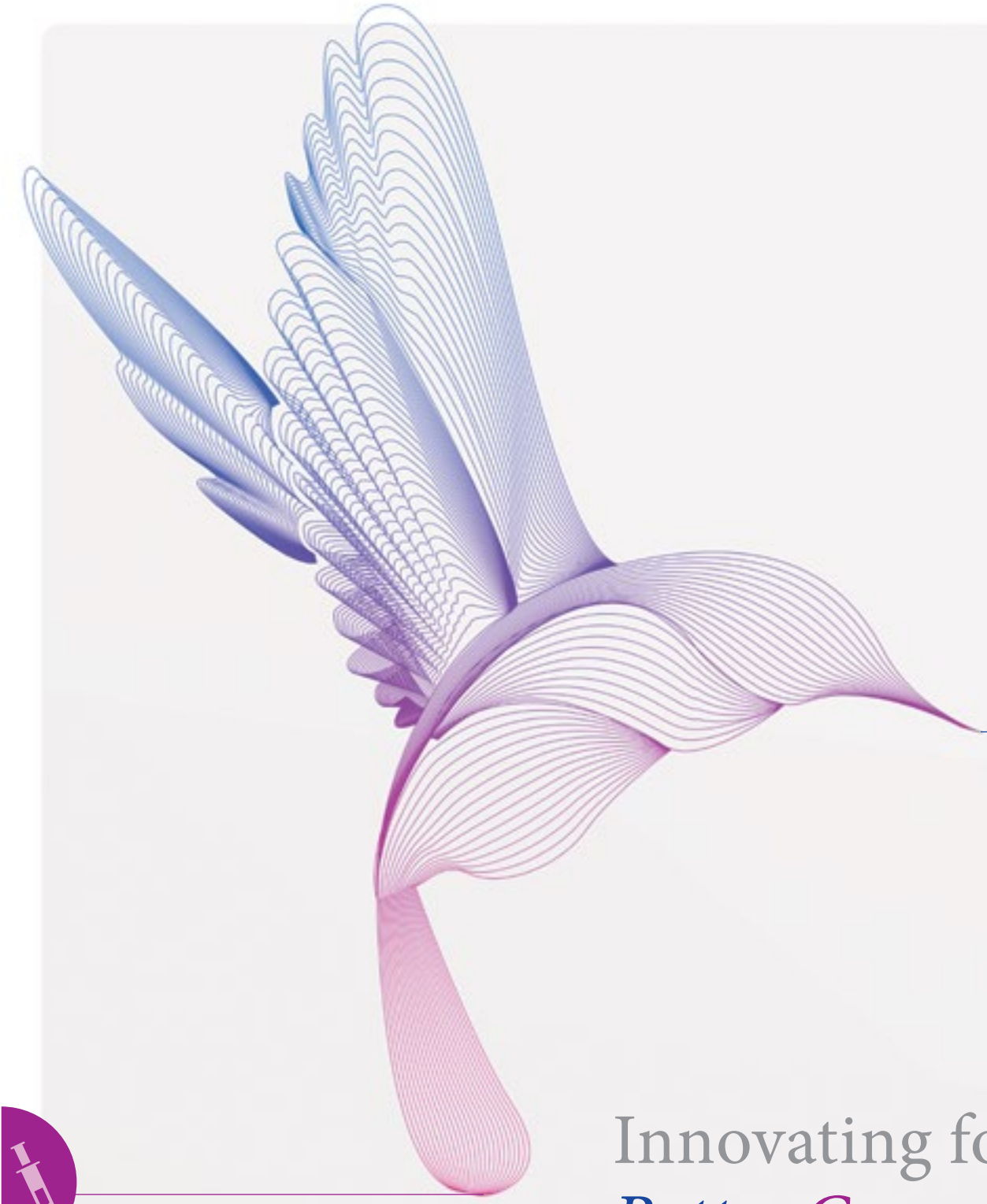

醫院管理局
HOSPITAL AUTHORITY

Innovating for *Better Care*

STRATEGIC PLAN
2017-2022

Lines
Though simple
Are abound with possibility
Revealing endless vim and vigour
With intertwining flow and vibrant mobility

Lines moving together in synchrony and intertwining to form different shapes illustrate our commitment as members of the HA family, working in unity and transforming our services to meet the changing healthcare needs of the community. With a new mindset, HA will soar and reach new heights through "Innovating for Better Care", as we continue the mission of helping people stay healthy.

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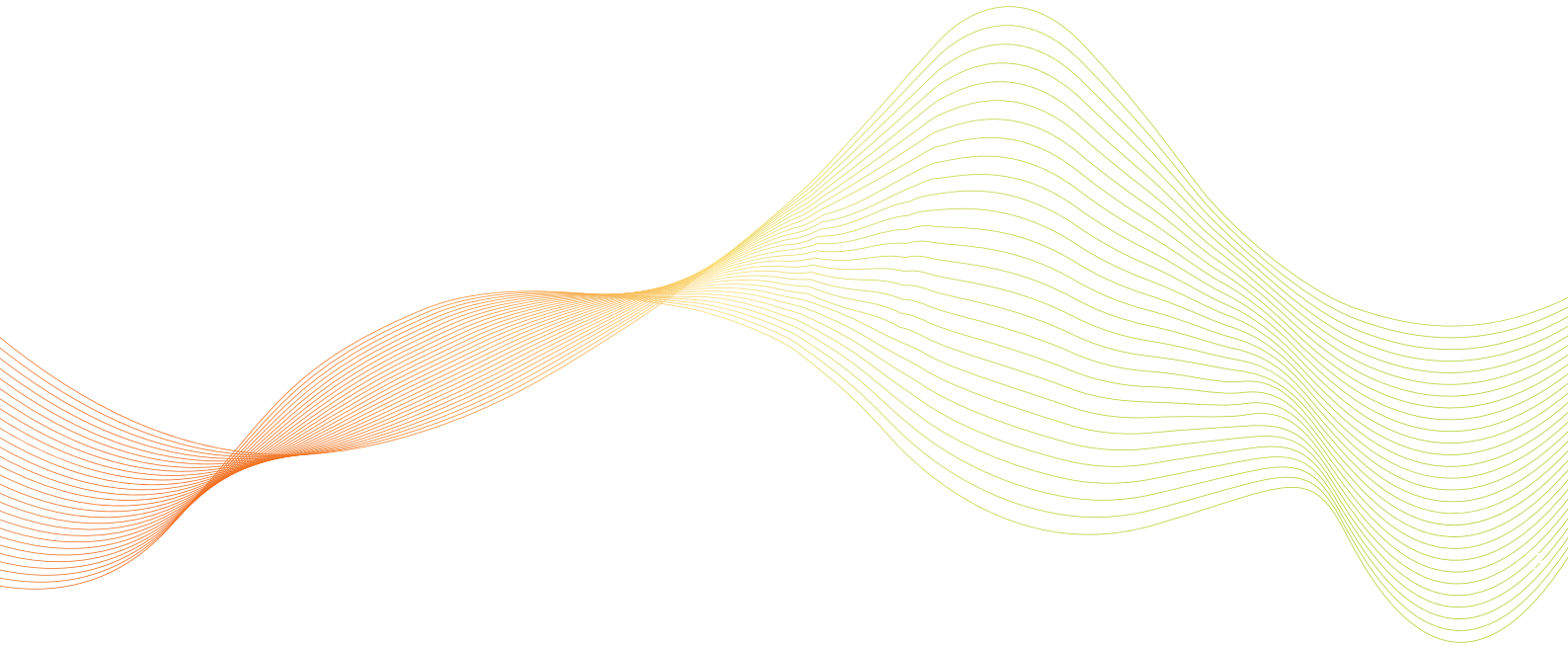


Executive Summary

Strategic Plan 2017-2022 of the Hospital Authority (HA) is the overarching document for guiding all aspects of HA's development and planning in the coming five years. In particular, it provides the basis on which our clinicians and executives develop and align their programme initiatives in the annual planning process.

Many of the strategies and key actions laid out in the Strategic Plan dovetail with the HA Action Plan for implementing the recommendations of the Government's Steering Committee on Review of HA, as part of a coherent and synergistic approach for positioning the organisation to address key challenges and healthcare needs and move towards achieving HA's vision and mission.

Planning Process

Formulation of the Strategic Plan is led by the HA Board. The Plan has been developed through an extensive process of in-depth analysis of HA's internal and external environment and comprehensive consultation with major stakeholders, which took more than a year and involving around 970 participants. From the process, three main strategic foci pertaining to the service, workforce, and financial aspects of HA have been crystallised along with an array of strategies, which map out the corporate priorities for HA to work towards in addressing the key issues it faces:

- *Provide patient-centred care* - Ensuring patients have timely access to high quality and responsive services which place patients firmly at the heart of their care. This is carried out through multi-faceted strategies that are geared towards improving service quality and optimising demand management. Core to this will be a fundamental transformation in the way we deliver care, to streamline care processes and improve care efficiency and effectiveness, and engage patients as key partners in healthcare.

- *Develop a committed and competent workforce* - Continuing the development of a competent workforce with a shared sense of common purpose and values as members of "One HA" family, by making HA a workplace that attracts and retains staff as well as through enhancing staff training and development.

- *Enhance financial sustainability* - Driving accountable and efficient use of financial resources through improving financial planning and enhancing the transparency and equity of resource allocation.

Strategies for Improving Service Quality

- Enhance access and efficiency by promoting day services to reduce the reliance on inpatient care; strengthening service coordination and collaboration through the development of Cluster/ network-based services; developing more options for patient care; and enhancing community-based care.

- Improve the safety and effectiveness of care by developing service standards and common protocols, refining clinical governance and performance monitoring, and reinforcing clinical risk management.

- Modernise HA by refining technology planning and adoption to keep up with international standards, and upkeep existing equipment.

- Promote partnerships with patients by empowering patients for self-care, engaging patients in shared decision-making about their care, as well as engaging patients to support service improvements.

Strategies for Optimising Demand Management

- Raise the capacity of priority services of HA, particularly for high demand services having regard to the projected demand arising from a growing and ageing population, and roll out service enhancements for time-critical care for patients with life-threatening conditions.

- Share out the demand with community partners, such as through public-private partnerships.

Strategies for Attracting and Retaining Staff

- Improve staff management through strengthening the governance and transparency of Human Resource practices, offering more flexible work arrangements, and developing more structured succession planning.

- Promote staff engagement and well-being by developing more ways to better communicate and engage with our staff, as well as through building and sharing our corporate culture and values, including promoting the concept of "One HA" to enhance the sense among staff that they are part of one united HA family, rather than just a member of an individual Cluster or hospital.

- Foster staff health and a safe working environment through reinforcing ways to support the health of staff and strengthening Occupational Safety and Health.

Strategies for Enhancing Training and Development

- Strengthen training governance and policy through a high level central committee for coordinating the governance and organisation of staff training, and establishing a mechanism to align staff training with career development.

- Improve training quality through developing a quality assurance framework for training programmes and trainer competency, strengthening training support, and developing training themes to reinforce the corporate purpose and values.

Strategies for Enhancing Financial Sustainability

- Improve financial planning through refining HA's financial projection model to facilitate discussions on Government Subvention, and assessing the fee structure in relation to our service models so as to explore its application as a means to encourage appropriate use of public healthcare services and how it could facilitate the service transformation strategies.

- Enhance transparency and equity in resource allocation by revisiting HA's resource allocation model from the population perspective, and enhancing the development and use of costing information to support efforts in driving efficiency.

Underpinning the strategies laid out in this Plan is robust corporate governance in ensuring that HA operates and delivers its services in an effective manner with integrity, transparency and accountability. In this regard the HA Board will continue to reinforce its leading and managing role on HA, as recommended in the HA Review.

At the same time, accomplishing the strategies will depend on a number of key enablers to support the enhancements, drive change and facilitate transformation in models of care and practices. The key enablers include capital works and facility improvement, business support services, as well as information technology and health informatics.

Implementation and Monitoring

Strategies and key actions of the Strategic Plan that require addition or redistribution of resources will be implemented through the annual planning process. In relation, the five Annual Plans covering the period 2017-18 to 2021-22 will be the specific action plans for implementing the Strategic Plan.

Monitoring of the implementation of the Strategic Plan will be led and overseen by the HA Board and its relevant Committees. Overall, a progress report will be submitted to the HA Board on a biennial basis on the implementation.

Moreover, many of the strategies and key actions laid out in the Strategic Plan dovetail with the HA Review Action Plan. Hence, the monitoring of those dovetailed areas will also be covered by the regular reports to the Executive Committee of the HA Board, which will monitor the progress of the HA Review Action Plan.

Foreword by Chairman

Being the major provider of public healthcare services, Hospital Authority (HA) plays an instrumental role in Hong Kong's twin track healthcare system. For members of the community, we are a reassuring and trusted face to turn to for meeting their healthcare needs during the different phases of life and at times of illness.

As we celebrate the historic milestone of our 25th anniversary, it is incumbent on each and every one of us in the HA family to use our professional knowledge and the experiences we have gained from the past to plan ahead and work together to ensure the best possible health outcomes for our patients, and indeed for the whole community.

The exercise to map out our strategic directions for the next five years set forth a continuation of the journey we have embarked upon to transform and enhance our services to meet the changing healthcare needs of the community. During the strategic planning process, reference was made to the recommendations of the Steering Committee on Review of HA chaired by the Secretary for Food and Health, which have enabled us to consolidate our experience in the past and reinforce our solid foundation for future development.

The formulation of Strategic Plan 2017-2022 has involved the contribution of a great many people and I am indebted to the valuable time and inputs given by frontline staff, patient representatives, members of advisory committees and hospital governing committees, as well as my fellow Board members.

Through the collective strength and dedication of all members of the HA family, I have every faith that the strategies and priorities laid out in this plan will be turned into effective actions for meeting the healthcare needs of today, as well as those of tomorrow.

John Leong Chi-yan
Chairman

Introduction by Chief Executive

It is with great pleasure that I present the new Strategic Plan 2017-2022, "Innovating for Better Care", the third strategic plan of HA. It is the culmination of more than a year of extensive consultation involving more than 970 stakeholders, with leadership and guidance from the HA Board.

Building on the solid foundations of our previous plans, the new plan sets out the strategies and directions we will pursue in the coming years to enable us to address the challenges we face. In particular, Hong Kong's changing demographic and social landscape continues to have a profound impact on how we deliver public healthcare services and meet patients' needs.

We have increased our capacity significantly over the past five years with staunch support from the Government. But rising demand continues to be a significant challenge to us, and there remain considerable service gaps. It is clear that more of the same is not the solution. Changes need to be made. Hence, when developing the new strategic plan we have looked closely at our current practice and service models and asked ourselves what could/should be done to make them more fit for purpose in meeting healthcare needs. The process has benefitted from the recommendations of the Government's Steering Committee on Review of HA, based on which improvement measures were drawn up and incorporated into the new plan.

"Innovating for Better Care" reflects our aspiration to be innovative and think out of the box when meeting the healthcare needs of our patients and the community. This includes developing new service models by leveraging on technology and through service transformation so that the healthcare needs are managed in more efficient and effective ways. It also highlights our strategic focus on providing patient-centred care, which means designing, organising and delivering our services from the patients' point of view and according to their needs. Patients are regarded as our healthcare partners in this approach.

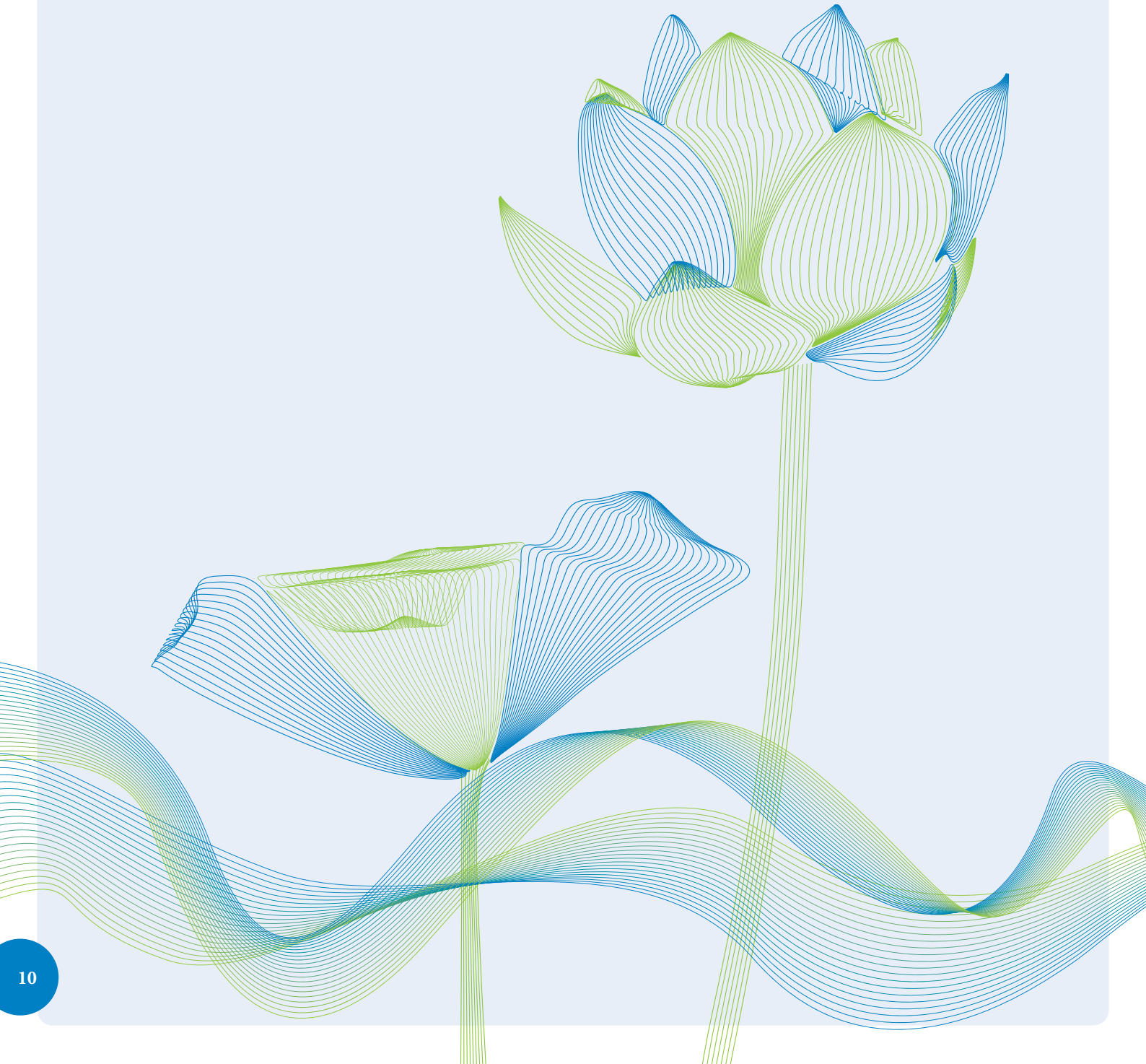
Overall, *"Innovating for Better Care"* will be achieved through a culture of innovation and teamwork, with our committed staff working in unity and in collaboration to provide professional and patient-centred services.

I wish to express my sincere gratitude to members of the Board and Committees for their guidance and support. My heartfelt appreciation also goes to our staff as well as members of the Hospital Governing Committees, Regional Advisory Committees and Patient Advisory Committee for their immense contributions to the formulation of this plan. I look forward to the continued support and participation of all in bringing the plan into fruition.

P Y Leung
Chief Executive

Our Planning Context

HA is a statutory organisation responsible for managing the public hospital system and providing public healthcare services in Hong Kong.



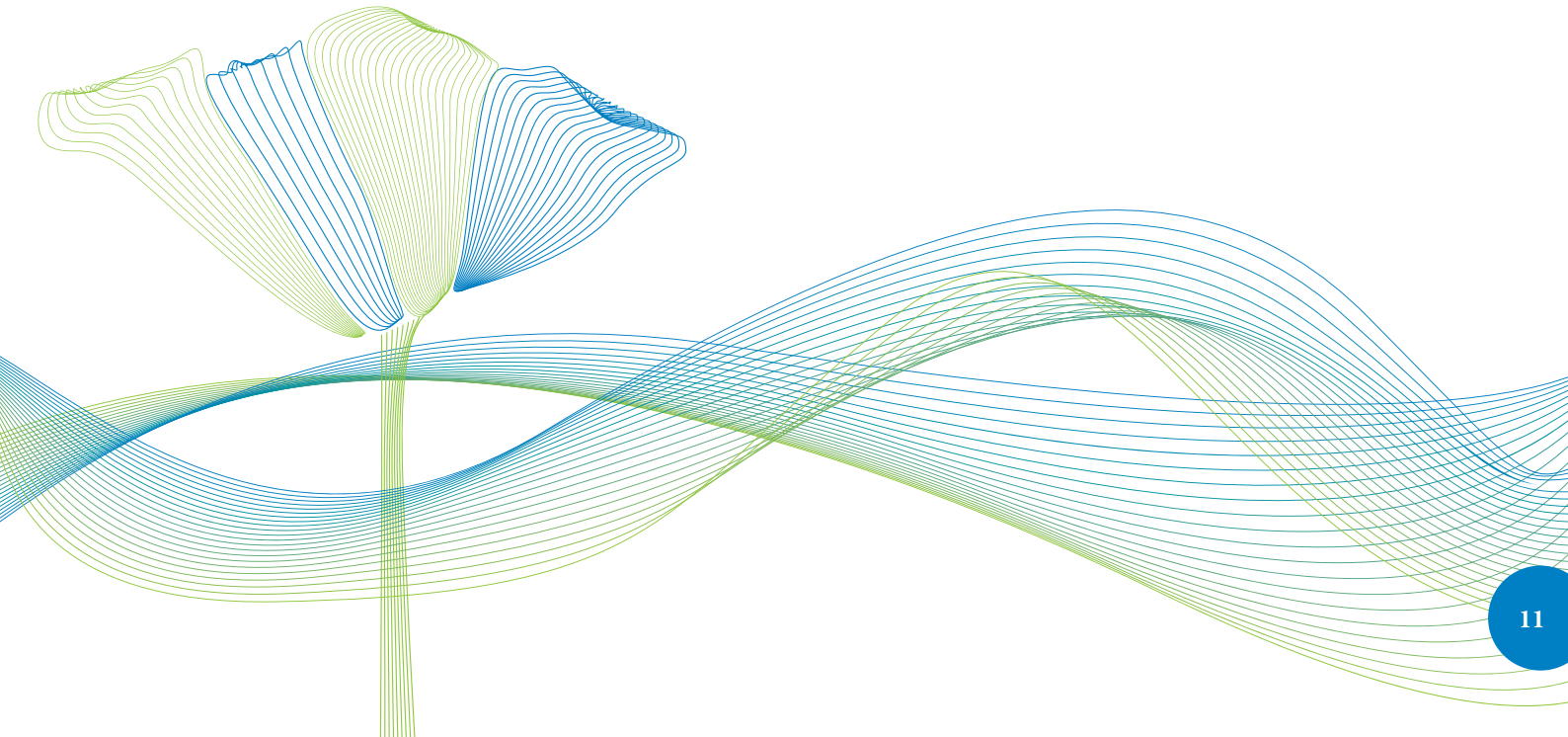
Our services are provided in accordance with the principle that no person should be prevented through lack of means from obtaining adequate medical treatment, as stipulated in the HA Ordinance. Hence, a comprehensive range of highly subsidised preventative, curative and rehabilitation healthcare services are provided to patients through our networks of hospitals, specialist outpatient clinics (SOPC), general outpatient clinics (GOPC) and community outreach services.

HA has a workforce of more than 73,000 staff and manages 42 hospitals / institutions, 47 specialist outpatient clinics and 73 general outpatient clinics. These facilities are organised into seven Clusters according to geographical locations, which together serve the whole of Hong Kong.

Strategic Planning

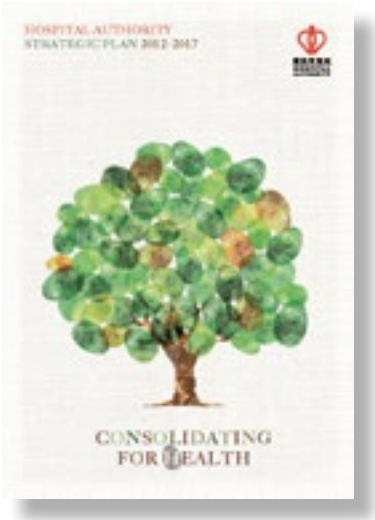
HA's service development and planning is guided by the formulation of Strategic Plans. By offering a roadmap for the years ahead, the Strategic Plans provide a framework for everyone in the HA community to align their priorities and efforts with the corporate directions and strategies in a consistent way. The objective is to strategically position HA so as to enable the organisation to address key challenges and healthcare needs and move towards achieving HA's vision and mission.

The first Strategic Plan of HA covered a three-year period from 2009 to 2012, while the second Strategic Plan spanned across five years from 2012 to 2017. As the overarching frameworks for planning and development, our strategic plans have prospectively guided our annual planning process and submission of Resource Allocation Exercise (RAE) bids to the Government over the years.



Accordingly, progress has been made across all the strategies laid out in the Strategic Plans, as reflected by the programmes outlined in the respective annual plans for implementing the strategies and translating them into actions. For instance, to allay staff shortage and high turnover, in the last five years around 6,240 doctors, nurses and allied health professionals have been added to the HA workforce, along with the addition of 770 promotion posts for frontline healthcare professional staff with earmarked funding and the provision of over 920 overseas scholarships. There has also been significant increase in the capacity across Clusters for managing growing service demands, which includes adding 1,040 beds and around 645,500 general outpatient attendances. Moreover, to modernise our services and ensure service quality and safety, the coverage of HA Drug Formulary has been widened with the injection of $393 million additional funding, and the Inpatient Medication Order Entry (IPMOE) system has been developed and is now implemented in 12 acute hospitals. Advanced technologies like minimally invasive surgery and robotic surgery are now widely adopted in HA, together with the new introduction of Positron Emission Tomography (PET) Scan service and hyperbaric oxygen therapy.

The new Strategic Plan, traversing the next five years from 2017 to 2022, builds on the progress achieved through the previous Strategic Plans by laying out a renewed set of corporate-wide strategies and directions, having regard to areas that require further efforts and improvement as well as the priority areas of HA.



Priority Areas

As a publicly funded organisation, HA is accountable to the Government through the Secretary for Food and Health, who formulates the overall health policy for Hong Kong. To maximise health gain within allocated resources, our strategic planning is underpinned by the need for us to prioritise our services. This is guided by the Government's direction set forth by the Secretary for Food and Health in the report "Building a Healthy Tomorrow" in 2005, which identified the following four priority areas for HA to focus on:

- Acute and emergency (A&E) care;
- Service for the low income group and the underprivileged;
- Illnesses that entail high cost, advanced technology and multi-disciplinary professional teamwork in their treatments; and
- Training of healthcare professionals.

In 2015-16 we recorded:

- 27,895 beds
- 8.3 million patient days
- 1.7 million inpatient and day inpatient discharge episodes
- 2.2 million A&E attendances
- 7.3 million SOPC (clinical) attendances
- 6.3 million primary care attendances
- 2.0 million community outreach visits

Review of Hospital Authority

In addition, our new Strategic Plan has taken reference to the recommendations of the Steering Committee on Review of HA, chaired by the Secretary for Food and Health. Set up in August 2013, the Committee conducted a comprehensive review of HA's operation and made a total of 10 recommendations in its report released in July 2015, particularly with regard to:

- Demand management for meeting the challenges of an ageing population;
- Waiting time and access block issues;
- Monitoring of service quality;
- Staff management, training and development; and
- Resource Management.

In response, the HA Board immediately set up a task force to follow up on the recommendations by formulating an action plan. The HA Review Action Plan was issued in October 2015, covering over 100 action items for implementation in the next three years. Many of the strategies in Strategic Plan 2017-2022 dovetail with the initiatives outlined in the HA Review Action Plan.

Vision, Mission and Values

Overall, our work and strategic planning is grounded in our Vision, Mission and Values (VMV), which guide the decisions we make in the planning, development and delivery of our services.

Vision

Healthy People, Happy Staff, Trusted by the Community

Mission

Helping People Stay Healthy

Values

People-centred Care

To provide service with a caring heart, even when we are busy or a patient is demanding, remembering that a good two-way communication is indispensable for understanding and meeting a patient's needs.

Professional Service

To increase our knowledge continuously by staying abreast of the latest developments in our profession, taking action to improve our skills, accepting responsibility for the things we do, and having the courage to learn from our mistakes. This is what we aspire to in our work, both as an organisation and as individuals working in it.

Committed Staff

To work wholeheartedly, think positively, and take the initiative to go the extra mile in order to serve our patients better.

Teamwork

To join hands and work together to achieve the best outcomes. To do this, we must foster positive relationships, and adopt a spirit of openness, mutual respect, and acceptance of different ideas. These factors will allow each of our team members to make his or her unique contribution to our collective success.

Planning Process

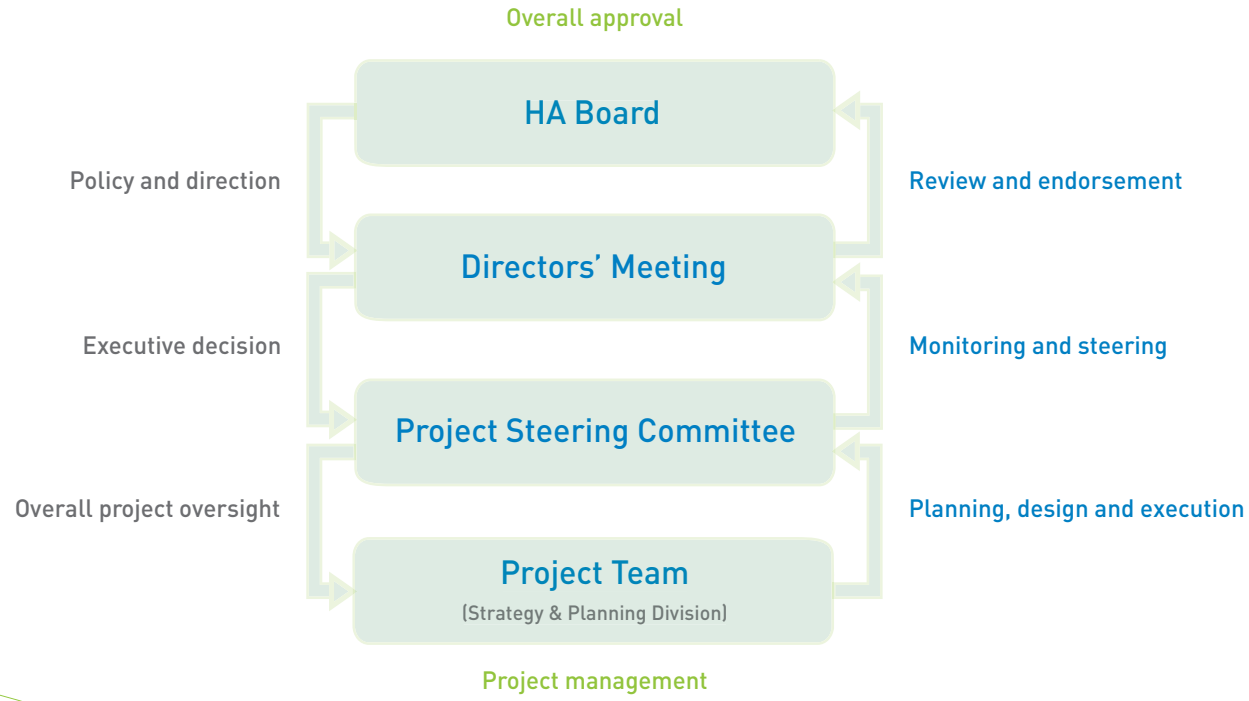
Strategic Plan 2017-2022 has been developed through an extensive process of consultation and in-depth analysis.

A highly interactive and broad engagement approach was taken to involve as many stakeholders as is feasible in the formulation of the Strategic Plan. This is to solicit a wide range of views in identifying the key issues and challenges facing HA and developing an array of strategies for addressing them.

Project Governance

The formulation of the Strategic Plan was led and directed by the HA Board, with members of the HA Board and its relevant Committees involved throughout the development process. Above all, the HA Board is the ultimate authority for confirming and approving the strategies and directions of the Strategic Plan.

Executive decision, on the other hand, was provided through the Directors' Meeting (DM). To ensure a smooth and coordinated process, a Project Steering Committee (PSC) chaired by the Chief Executive of HA was established to oversee the project. Membership of the PSC comprised the Directors and Heads of HA Head Office (HAHO), as well the Cluster Chief Executives of New Territories East Cluster and Kowloon West Cluster. The PSC was supported by a project team from the Strategy and Planning Division of HAHO to manage the project and carry out the strategic planning process. The overall governance of the project is illustrated in the diagram below.



Formulation Process

Overall, the process for formulating the Strategic Plan involved the following components:

- Environmental scanning and situation analysis of HA's internal and external context to identify key challenges and issues.
- Review of the previous Strategic Plan to take stock of the progress and map out any prevailing issues or gaps.
- Consultation and discussion with a wide range of key stakeholders to solicit their views and inputs on the key issues facing HA and formulate strategies to address them.
- Alignment with the recommendations of the Steering Committee on Review of HA (HA Review) and the Action Plan developed by HA for implementing the recommendations (HA Review Action Plan).

Consultation Exercise

The consultation exercise took place between January and December 2015, with the involvement of around 970 participants, including the following major stakeholders:

- Coordinating Committees (COCs) and Central Committees (CCs) – two rounds of meetings were organised with around 190 doctors, nurses, pharmacists and allied health professionals representing 40 COC/CCs, during the periods of January - April and November - December.
- Patient Advisory Committee in March and November.
- Hospital Governing Committees (HGCs) – two rounds of meetings were held with Council of HGC Chairmen in May and November. Views and inputs were also collected from HGC Members via Cluster Chief Executives / Hospital Chief Executives between June and October.
- Senior Executives – two workshops were conducted with all the senior executives in May and June, involving Cluster Chief Executives, Hospital Chief Executives, Head Office Directors, Heads and Chief Managers.
- Staff Group Consultative Committees – meetings held with all the staff groups including those for doctors, nurses, allied health professionals, supporting staff, administrative, supervisory and clerical staff, between August and September.
- Regional Advisory Committees of New Territories, Hong Kong Island and Kowloon respectively in December.

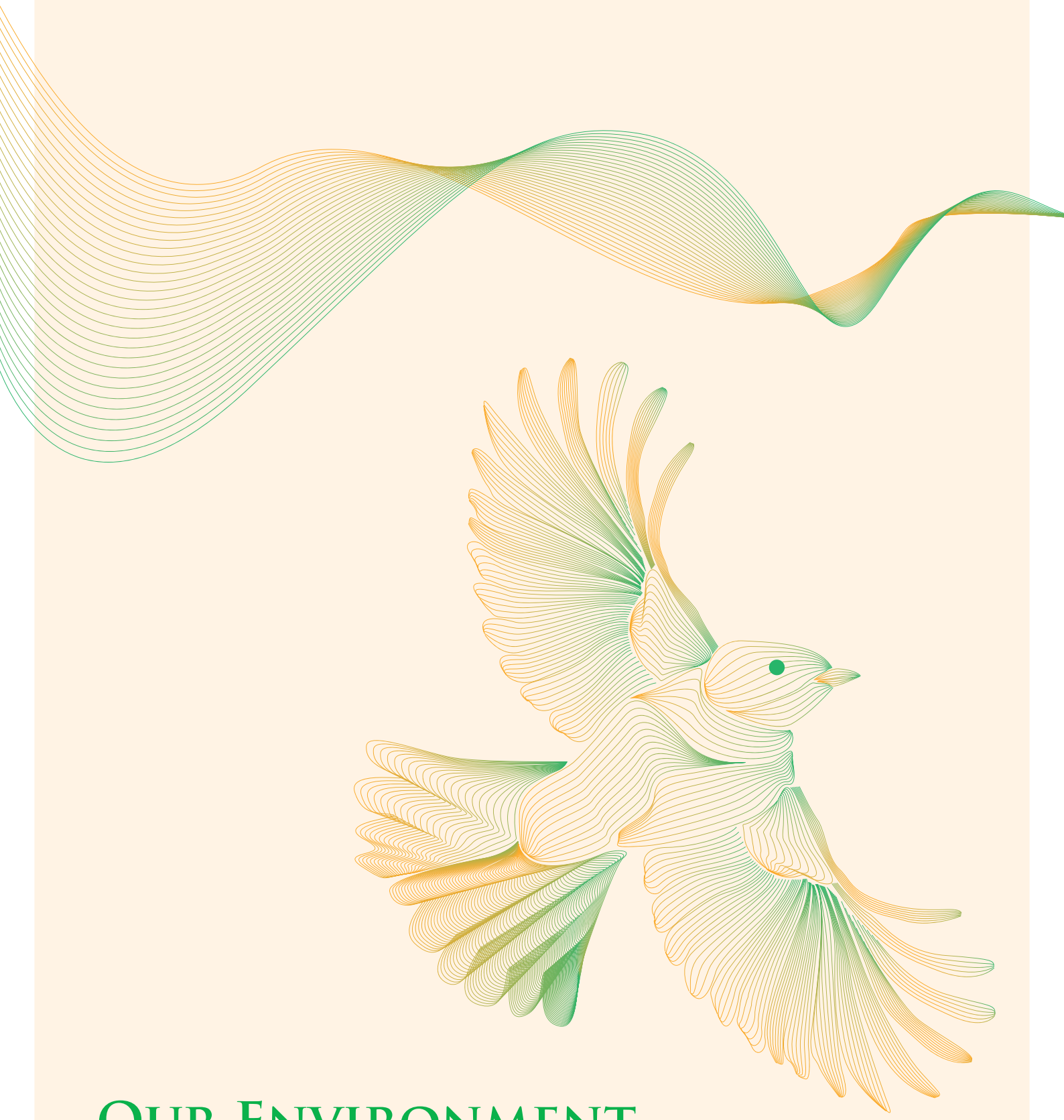
Key issues and proposed strategies gathered from the consultation sessions were deliberated by the relevant Board committees of HA, including:

- Executive Committee
- Medical Services Development Committee
- Supporting Services Development Committee
- Human Resources Committee
- Finance Committee

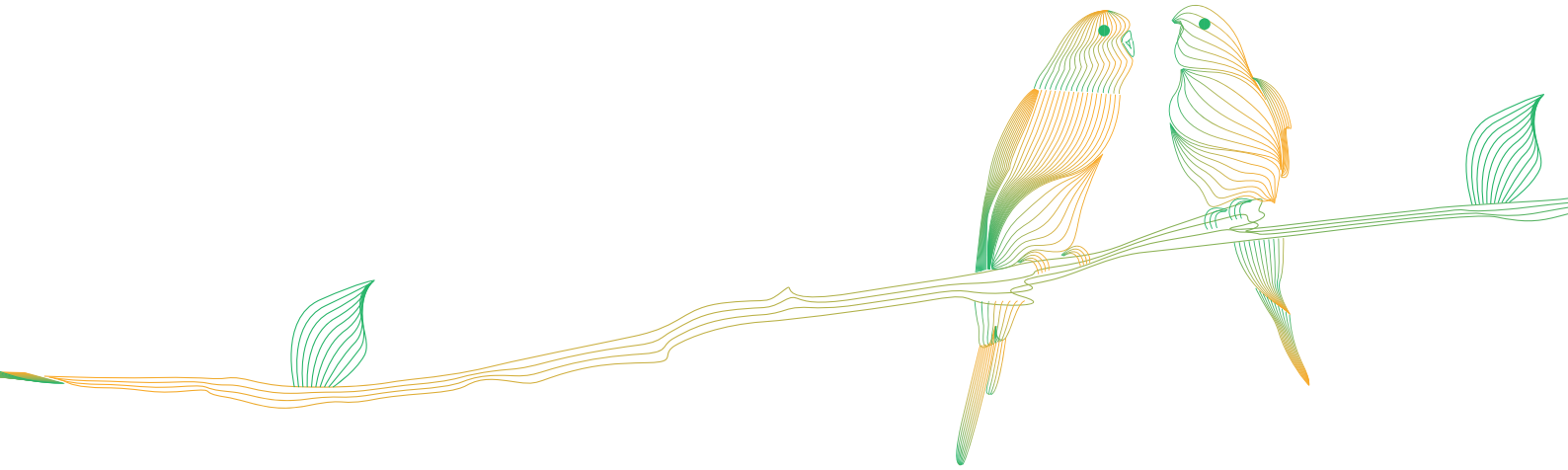
A key event in particular was the Board Workshop held in August 2015, at which Board Members discussed in detail the strategies and directions for addressing issues in the areas of access block, waiting time, staff training and development, and internal resource allocation. These issues were among those highlighted in the HA Review.

The strategic framework and key strategies crystallised from the formulation process were submitted to the HA Board for endorsement in December 2015 so as to guide the 2017-18 annual planning exercise that started in early 2016.

Subsequently, the full write-up of the Strategic Plan was circulated in April 2016 to all the stakeholders who have participated in the consultation exercise for comment. Comments and feedbacks received from the stakeholders were carefully deliberated by the PSC, and the finalised Strategic Plan was submitted to the HA Board for approval in November 2016 before publication.



Our Environment and Key Challenges



Tasked with ensuring the access of every citizen to affordable healthcare, HA is essentially providing a healthcare safety net for the whole community and is expected to meet the healthcare needs of all public patients who present to our facilities. As a result, major trends in the demographic structure and disease epidemiology of Hong Kong will directly affect our service demand and the way our service models evolve to meet the service needs.

As a publicly-funded organisation, we are also mindful of the expectations the general public and our patients have on our services. At the same time, we are accountable in making the best possible use of our available resources, particularly in terms of financial and human resources, to meet our service needs and ensure that our services are sustainable and operate in an efficient manner.

Moreover, whilst advances in medicine and technology can offer opportunities in enhancing patient care, there is a need to ensure the technologies adopted are appropriate and cost effective in the local setting, and our professionals are equipped with the skills and competencies required for performing the new procedures or interventions.

Hence, to pinpoint and better understand the key issues and challenges facing HA now and in the coming years, we have examined the following aspects of our internal and external environments during the strategic planning process:

- Demographic shift
- Burden of chronic diseases
- High demand services
- Service models
- Patient expectation
- Medical technology
- Workforce situation
- Financial situation
- Government Policies

Demographic Shift

Like many places in the world, the demographic profile of Hong Kong's population is undergoing significant transformation, as it continues to grow and age at a rapid pace. The latest projections by the Census and Statistics Department show that the population will increase by around 8% from 7.24 million in 2014 to 7.84 million in 2026. Significantly, the increase is attributable entirely to growth in the elderly population aged 65 years or above. Specifically, during this period the number of elderly people will rise from 1.07 million to 1.83 million, equating to an increase of 72%. As a result, the percentage of elderly in the population will grow from 14.7% to 23.3%.

Demographic Change, Year 2014 to 2026

The consequence of an ageing population, with both an increase in the number and proportion of elderly people, will have a major impact on our service demand as illustrated by the following observations based on the current patterns of service utilisation in HA:

(a) The chance of an elderly person being hospitalised is about four times that of a non-elderly person.

(b) Elderly people require more healthcare services, particularly the public services which are highly subsidised. For example, despite making up around 15% of the population in 2014, elderly people accounted for around half of all patient days and 38% of the GOPC attendances in HA.

(c) In terms of general bed utilisation rate, the requirement for those aged 65 years or above is about nine times that of below 65 years, whereas for those aged 85 years and above it is almost 20 times.

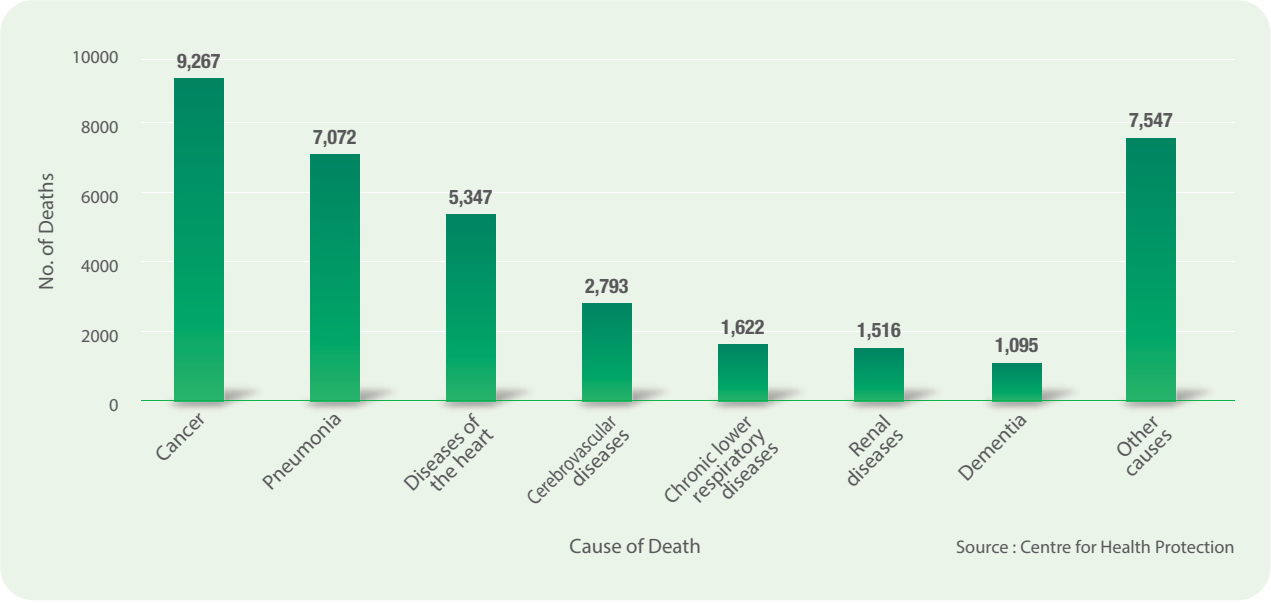
(d) Total resources spent on elderly patients amounted to around 46% of HA's cost of services in 2014-15.

Thus, as the population continues to grow and age so too will the demand for HA services, especially in those areas set to experience significant shifts in the proportion and numbers of elderly people.

Burden of Chronic Diseases

Along with population ageing and increasing longevity is a rising occurrence of chronic illnesses. For example, data from the Centre for Health Protection shows that in 2014 the leading causes of death in the elderly population were cancer, diseases of the heart, pneumonia, cerebrovascular diseases, chronic respiratory diseases, renal diseases and dementia, accounting for almost 80% of deaths in this age group. All of these, except pneumonia, are chronic conditions and pose a major burden to the healthcare system.

No. of Deaths by Leading Cause of Death in Ages 65 and Above (2014)



At the same time, other common chronic diseases like diabetes mellitus and hypertension, which are common risk factors for heart disease and stroke, are also generating increasing demand on healthcare services.

Local studies have indicated diabetes affects around one in 10 people in Hong Kong, ranging in prevalence from around 2% in people aged less than 35 years old to more than 20% in those aged 65 years or above. Moreover, the incidence of diabetes is increasing, with more than half being

undiagnosed. Diabetes is also a leading cause of kidney failure, blindness and leg amputation[1]. Similarly, hypertension is prevalent in Hong Kong with local survey showing around 27% of the population have increased blood pressure, of which half were unware of their condition. Prevalence of hypertension increases with age and affects almost three quarters of people aged 75 years or above. If hypertension is not well controlled and treated, it increases the risk of cardiac failure, coronary heart disease and stroke[2].

As for the implications of chronic diseases on HA services, it is projected that between 2014 and 2024 the number of patients being treated for diabetes in HA will increase by 53% from 410,000 to 627,000; while the number of hypertensive patients will increase by 43% from 1,070,000 to 1,532,000. During the same period, the numbers of coronary heart disease and stroke patients in HA are also projected to grow by 42% from 185,000 to 264,000 and by 47% from 87,000 to 129,000 respectively.

The high and rising number of patients with chronic conditions poses a significant challenge to HA not only in terms of the increase in service volumes, but also on the service model for best managing and meeting the needs of this group of patients who may require different levels of care as their disease progresses.

High Demand Services

Based on current healthcare utilisation patterns, it is projected that HA's acute and extended care services will have to provide around 4,600 additional beds by 2026 in order to cater for the healthcare needs of the growing and ageing population. This represents an increase of around 21% in HA's acute and extended care bed complement as compared to the situation in March 2016. Likewise for many other high demand services in HA, such as Accident and Emergency (AED), GOPC and SOPC services, throughputs are projected to continue to increase in the years ahead as demand from the population grows. Current situations of high demand services are outlined below.

Beds in HA are classified, in terms of types, into general beds, infirmary beds, beds for mentally ill and beds for the mentally handicapped. General beds comprise beds in the acute and convalescent or rehabilitation settings.

1 Task Force on Conceptual Model and Preventative Protocols, Working Group on Primary Care. (2013). *Hong Kong Reference Framework for Diabetes Care for Adults in Primary Care Settings*. Hong Kong: Food and Health Bureau, The Government of the Hong Kong Special Administrative Region

2 Task Force on Conceptual Model and Preventative Protocols, Working Group on Primary Care. (2013). *Hong Kong Reference Framework for Hypertension Care for Adults in Primary Care Settings*. Hong Kong: Food and Health Bureau, The Government of the Hong Kong Special Administrative Region

Inpatient Care

Over the past years, HA has put in place a number of capacity enhancement measures to help meet increasing service demand, particularly for inpatient care. This has included the opening of additional beds in existing hospitals, the development of new hospitals, as well as increases in HA's bed complement through hospital redevelopment and expansion projects. In particular, around 1,040 beds have been added between 2012-13 and 2016-17, bringing the estimated number of general beds to around 21,800 in 2016-17.

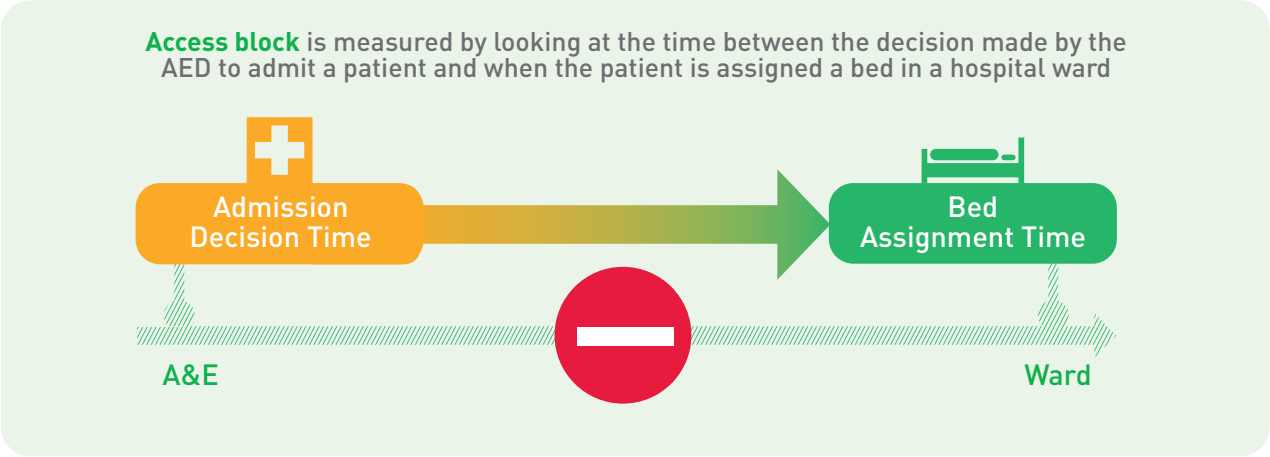
However, high bed occupancy continues to persist, affecting the way ward staff are able to manage patients along the care pathway, such as in admissions and onward referrals, as well as on the buffer capacity for responding to changes in patient demand, such as during the winter surge. Specifically, the overall occupancy rate of general beds has increased from 84% in 2011-12 to 89% in 2015-16. During the winter surge, some specialties, especially for Internal Medicine, have to manage their services with a bed occupancy rate of over 120%.

Accident and Emergency Department

As highlighted in the HA Review, there is a need for HA to address as a matter of priority the waiting time issues of AED services and access block in some hospitals, whereby a patient has to wait a long time at the AED before getting admitted to an inpatient ward.

Analysis shows that the phenomenon of access block in HA is multi-factorial and reflects system-wide issues that lie outside of the AED. Besides acute bed capacity, other significant factors include admission policy of the acute ward that does not incentivise the discharge of patients; sub-optimal bed coordination and management; not enough support from step-down facilities including convalescent and rehabilitation services as well as community care services for relieving the pressure of acute beds; and service model issues such as over-reliance on inpatient care particularly for elective cases, etc.

Moreover, the lower levels of discharge at weekends results in a build-up of patients in acute wards who would otherwise be ready to go home or transferred to step-down care, thus interrupting patient flow and further exacerbating the shortage of acute beds and the ability to admit patients from the AED.



As regards the waiting time for AED services, it is not an issue for critical and emergency cases (i.e. Triage I and II cases) where they are seen immediately or within 15 minutes respectively. On the other hand, for urgent cases (Triage III cases), 78% of them were attended to within 30 minutes in 2015-16, which was below our performance target of 90%.

Outpatient Clinics

For other high demand services like GOPC and SOPC, an extra 645,500 GOPC attendances and 62,600 first attendances for new cases of SOPC were added between 2012-13 and 2016-17.

Overall access of needy patients to GOPC services has improved. For example, elderly and low-income patients with episodic illness who are offered a GOPC appointment within two working days through the telephone appointment system has increased from around 91% in 2011 to over 97% in 2015. However, in view of the growing number of chronic disease patients being followed up at GOPC, additional GOPC attendances will be needed to cater for chronic cases in addition to episodic cases.

As regards SOPC services, the HA Review has emphasised the pressing need for HA to address the waiting time issues. This issue applies only to Routine (i.e. stable) new cases, while the median waiting times for a first appointment for Priority 1 (urgent) and Priority 2 (semi-urgent) cases are within the performance target of two weeks and eight weeks respectively. For Routine new case bookings, the waiting times for most of the specialties remain high, though have shortened over the years through a basket of measures for some specialties like Surgery, Ophthalmology, and Paediatrics. Nevertheless, the waiting times for specialties such as Psychiatry, Internal Medicine, Orthopaedics and Traumatology, Gynaecology, and Ear, Nose and Throat (ENT) have continued to increase.

In general, it is observed that new cases account for less than 10% of the 7 million SOPC attendances every year, meaning that most of the SOPC attendances are taken up by follow-up cases which may partly explain the long waiting times for Routine new cases.

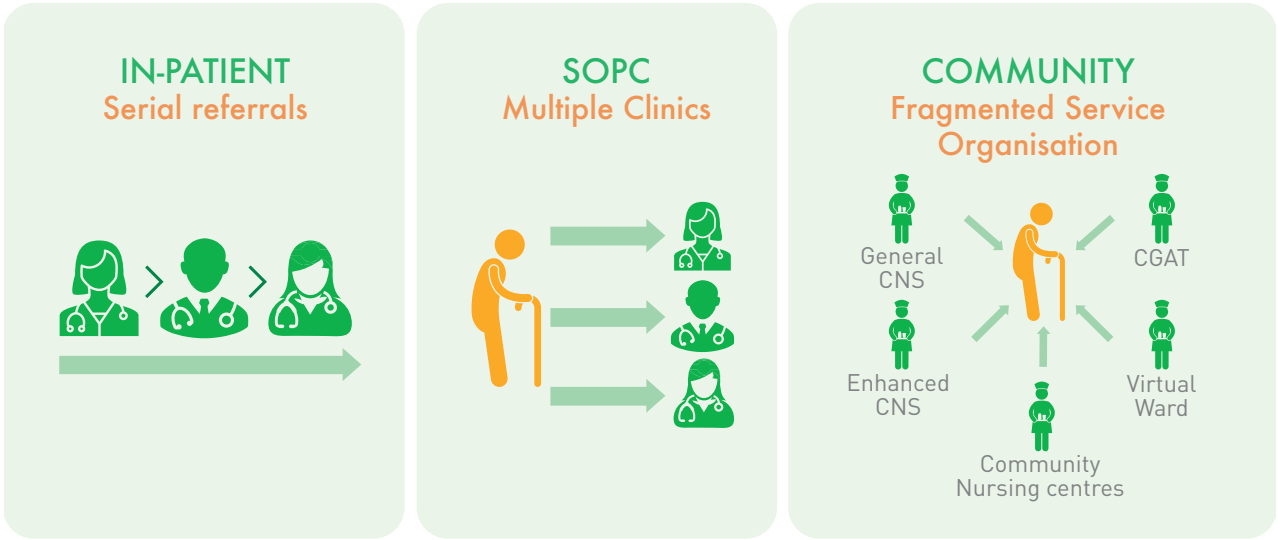
Service Models

Analysis indicates that some of the current service delivery models and the way care is organised and coordinated in HA may in fact be generating additional demand internally and also causing inconvenience to patients. The following are some key examples:

- Serial referrals are not uncommon in the inpatient setting, whereby a patient is seen by several sub-specialities in succession, rather than by a generalist or through a multi-disciplinary approach, resulting in duplicated care and longer length of stay for patients.

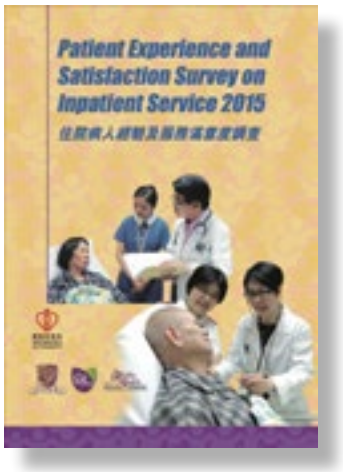
- In the SOPC there are patients (particularly the elderly) with co-morbidity who are managed though multiple specialty or sub-specialty clinics, which give rise to fragmented and duplicated care as well as unnecessary visits and waiting time for the patients.

- Community care or outreach services are generally fragmented in organisation. Hence the same patient may be seen by multiple teams even if the same discipline is involved. For example, outreach nursing support for elderly patients is often provided separately by nurses from the Community Geriatric Assessment Team (CGAT) who perform only patient assessment, and the Community Nursing Service (CNS) who provide direct patient care, resulting in interruption in the continuity of care for patients as well as inefficient care delivery and use of resources.



Patient Expectation

Patients and the general public generally have high expectations on HA service. To proactively collate patients' first-hand experience and views for service improvement, HA has commissioned a number of Patient Experience and Satisfaction Surveys. The first survey was conducted in 2010 with the participation of around 5,000 discharged patients from the seven Clusters. This was subsequently followed by a 2013 hospital-based survey focusing on acute hospital care, a 2014 survey on SOPC service, and a 2015 survey on inpatient service.



The survey in 2015, which covered around 9,300 patients discharged from 25 public hospitals, revealed an overall positive rating of 7.8 out of 10 for patient experience, but there were some areas for improvement in meeting patients' expectations. These include better access to information to support patient care and recovery and on medication side effects; and more opportunities for families and carers to talk to a doctor.

The 2014 SOPC-based survey, on the other hand, involved the participation of some 14,000 patients at 26 SOPCs. It revealed an overall positive experience on SOPC service, with an average rating of 7.7 out of 10 for patient experience. Areas that required improvement from the patients' perspective included information on the logistic arrangements before or during an appointment, information on self-care and medication, and patients' involvement in decision making.

The surveys provide important insights on patient care and what matters to our patients, in particular the wish of patients to be more informed and supported for their own care after discharge. Along with other channels of information, such as patients' feedbacks or complaints, these serve as crucial ways for HA to better understand patient expectations and needs, and in shaping measures to improve the quality of our services.

Medical Technology

World-wide, rapid advances in technology are creating exciting new possibilities in the delivery of healthcare. It is thus important for HA to introduce new medical technology in a timely manner in order to improve services and keep up with international standards of care. At the same time, technology adoption affects the development of clinical services and has significant service planning, financial and manpower implications. Hence careful assessment, planning and coordination of technology adoption is required in order to ensure its appropriateness as well as clinical and cost effectiveness in the HA setting.

It is particularly important to avoid introducing unnecessary or soon to be obsolete technologies, and to ensure those which are introduced are utilised effectively. Examples of advanced technologies of current relevance to healthcare providers internationally include hybrid operating theatres; robotic and computer assisted surgery technology; 3D printing technology; robotic rehabilitation devices; Positron Emission Tomography – Computed Tomography (PET-CT); laboratory automation and digitalisation; telemedicine; technology advances in the field of genetics and genomics; as well as information technology (IT) to support back-of-house functions that could help to improve the efficiency and safety of care.

There is also a need for us to continue to replace outdated or obsolete equipment, as well as those that need replacement due to wear and tear. Over the past few years significant efforts have been placed in this respect, which managed to reduce the backlog of outdated medical equipment, but there is still an estimated 22% (as at March 2016) of medical equipment in use beyond the expected lifespan and in need of replacement or upgrading.

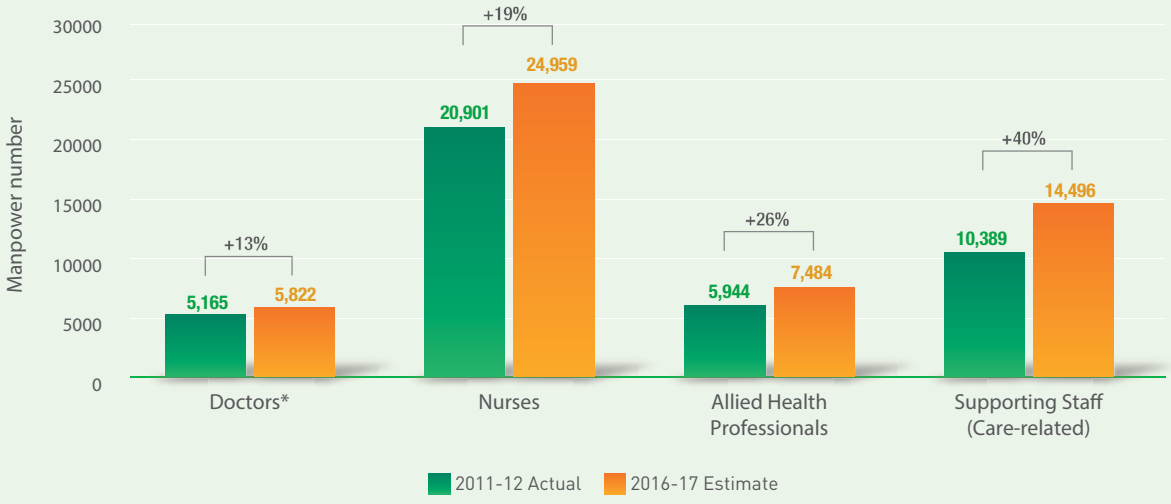
Workforce Situation

Manpower

Concurrent with increasing demand for healthcare services and advances in medical technologies, the manpower requirement for HA has grown considerably. However, we are facing a major issue of manpower shortage, especially for doctors due to the limited local medical graduate supply and due to high staff turnover.

Over the past five years, we have implemented a series of measures to retain and attract staff. For example, around 650 doctors, 4,050 nurses and 1,540 allied health professionals have been added to the HA workforce. This is alongside the addition of around 440 Associate Consultant, 280 senior nurse and 50 senior allied health promotion posts with earmarked funding. For supporting staff, their work conditions have been improved and in particular, the remuneration package and career progression opportunities of care-related supporting staff have been enhanced.

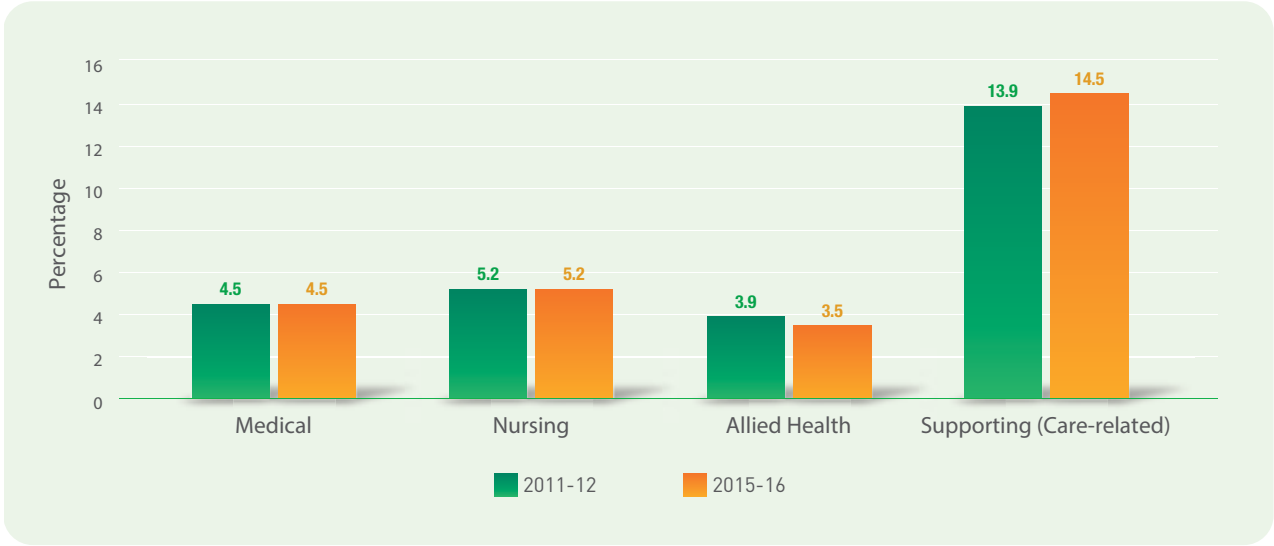
Change in Manpower Strength between 2011-12 and 2016-17 (No. of full time equivalent staff as at 31 March)



*refers to number of specialists and number of trainees / non-specialists

Other measures include recruitment of non-local doctors through limited registration; employment of part-time doctors through enhanced pay package; re-employment of suitable retirees, etc. As a result, manpower strength of clinical professionals has been increasing steadily and attrition rates have generally stabilised for full-time medical, nursing and allied health staff, although remaining high for care-related supporting staff.

Attrition rate (%) in 2011-12 and 2015-16 (full time staff)



Overall, there is still a manpower shortage of around 300 doctors in HA. The situation is expected to start improving in 2018-19 when there will be 420 local graduating Interns each year from the two local medical schools. Nevertheless, it is projected that demand will exceed supply again from 2021-22 onwards. To address the issue, the Government will further increase the number of degree places in medicine by 50 starting from the 2016-17 academic year, which means 470 new medical graduates are expected to join the workforce in 2023.

For nursing and allied health staff, we have sought to fill the manpower shortfall in recent years. However, if nurse supply remains unchanged, demand will again exceed supply from 2020 onwards. At the same time, developments in the flourishing private health care sector are likely to drive more intense competition for healthcare professionals, exacerbating the manpower shortfall issue in HA in the years ahead.

At the same time, there is also concern regarding the retirement wave of senior executives and clinical leaders in the coming years. It is estimated that over 180 of them, including Cluster Chief Executives (CCEs), Hospital Chief Executives (HCEs), Directors, Heads, Chief Managers, Chiefs of Service (COS), and Department Operations Managers (DOMs) will have retired by the end of 2021-22. So there is a need to ensure robust succession planning and a steady stream of high calibre and competent staff in the pipeline to take up senior roles and positions within the organisation.

Staff Management, Training and Development

The HA Review has pointed out the need for HA to enhance more central coordination of staff management so as to ensure greater consistency, fairness and parity in Human Resources (HR) practices across the Clusters. For example, in the areas of staff recruitment, staff promotion and transfer processes, as well as staff deployment across the organisation. The HA Review also made recommendations on strengthening the communication and engagement of staff to help boost staff morale and promote a shared sense of common purpose in support of HA's service and development.

HA is the major training ground for healthcare professionals in Hong Kong, including undergraduates and interns of the medical, nursing and allied health disciplines, as well as for specialists in various clinical specialties. Correspondingly, the HA Review highlighted the need to strengthen the governance, organisation and planning of staff training and development, so as to ensure this function is performed effectively. This is alongside the need to enhance the transparency and mechanisms of selecting candidates for training. In relation, an additional $300 million time-limited funding has been allocated to HA for enhancing staff training between 2015-16 and 2017-18.

However, manpower constraint has meant that it has been difficult for some staff to realise their training opportunities, since the decision on staff release must be carefully balanced with our service needs. In addition, staff constraints have affected the availability of trainers from within HA and the time they can spare for conducting training activities, especially during office hours, which has an impact on our training capacity.

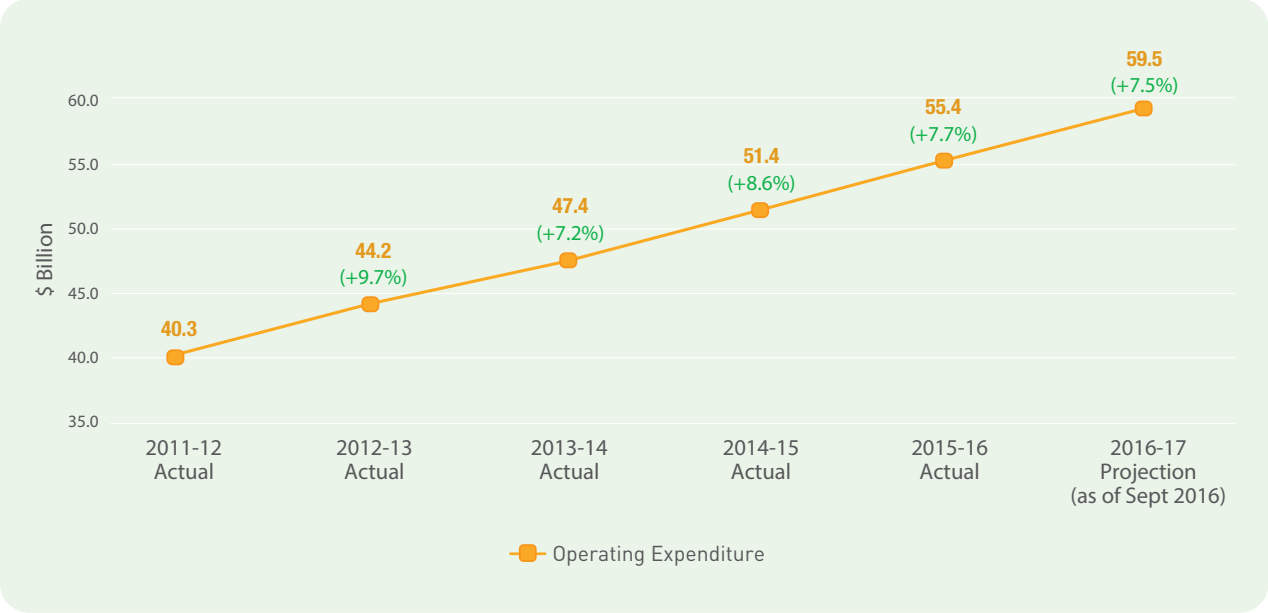
Financial Situation

As a public healthcare provider, HA relies heavily on the financial provision from Government to meet service needs. In response to increase in service demand and rising medical costs, recurrent funding from the Government has increased significantly by 34% over the years, from $37.9 billion in 2011-12 to $50.8 billion in 2016-17. The overall spending on public healthcare is approaching 17% of the Government's total recurrent expenditure. Meanwhile, there are signs that the local economy, and in fact the global economy as well, are slowing down. HA is required to contribute 0.5% savings in 2016-17 and another 0.5% in 2017-18 in response to the Government's three-year public expenditure control measures since 2015-16.

Overall, there is a need for predictable and steady funding growth from the Government in order for us to cope with the escalating service demand in the coming years. At the same time, we will need to improve our cost-efficiency and re-engineer our service models to better meet the healthcare needs of the growing and ageing population.

With the increase in Government funding over the years and to meet the growing demand for public hospital services, the operating expenditure of HA has increased from $40.3 billion in 2011-12 to $59.5 billion in 2016-17. Given that over 70% of our total operating expenditure is accounted for by staff costs, any change or fluctuation in manpower supply and demand will continue to have a considerable impact on our expenditure in the years ahead.

Operating expenditure of HA, 2011-12 to 2016-17



In addition, the HA Review has recommended that we refine our Internal Resource Allocation (IRA) approach taking into account the demographics of the local and territory-wide population, so as to address public and staff concerns on the transparency and equity in the distribution of resources to the Clusters.

Government Policies

As the major provider of public healthcare services in Hong Kong, HA needs to remain prepared and responsive to Government's healthcare reform initiatives and policy direction, especially those in response to the challenges of an ageing population. Government's initiatives, such as the promotion of public-private partnership (PPP), could facilitate HA to leverage on the capacity in the private healthcare sector to cope with the increasing service demand and enhance patient access to clinical services. For example, the allocation of $10 billion as endowment to generate investment return for funding HA's PPP initiatives could facilitate the expansion of existing PPP programmes, such as those for cataract surgeries, diagnostic imaging, haemodialysis and primary care, as well as provide opportunity for us to explore other suitable services for PPP. At the same time, the launch of the territory-wide electronic health record (eHR) will be an important component in facilitating the sharing of information across the public and private healthcare sectors to support such initiatives.

In addition, initiatives such as the colorectal cancer screening programme will help in early identification of colorectal cancer among the ageing population. As it is likely for screening programmes to generate workload for HA in the follow-up assessment and subsequent management of identified cases, careful planning will be required so as to minimise any impacts on our services when the new initiatives are introduced.

Given the Government's healthcare reform initiatives, it may be an opportune time to consider repositioning some of our low-priority services, such as for high volume, low complexity elective services, by leveraging the capacity of the private healthcare sector, NGOs and social enterprises to help support patients and share out the demand.

Summary

HA has made considerable progress in developing and enhancing public healthcare services over the years. However, like many healthcare systems around the world we are facing a number of inter-related challenges now and in the future.

The rapid pace and immense magnitude of the increase in service demand arising from population growth and ageing presents a formidable challenge to HA in enhancing service capacity to meet the demand, not least because of the significant financial and manpower resource implications, which despite staunch Government support, are themselves constrained. In this connection, there is a pressing need to explore alternative ways of meeting and managing the demand as well as to review the service delivery model for optimising efficiency, streamlining services and improving integration and coordination for the benefit of patients. Collectively these will contribute to creating a more sustainable system for HA going forward.

In the context of the wider healthcare system, expansion in the private sector, such as the planned hospital development projects of the University of Hong Kong and the Chinese University of Hong Kong, will help to enhance capacity of the system overall. On one hand this may help to alleviate some of the service pressures on HA, especially in light of the Government's promotion of PPP, but on the other hand will likely mean more intense competition for staff in the years ahead from a flourishing private sector and potential "brain drain" from HA.

In a nutshell, the following key issues relating to the service, workforce, and financial aspects of HA will need to be addressed in the coming years:

(a) Service

- Escalating service demand arising from population growth and ageing
- Access and waiting time issues in service delivery
- Care efficiency issues related to service models
- The need to keep up with advances in technology and international standards

(b) Workforce

- Manpower shortage and constraint
- Inconsistency in staff management practice
- The need to strengthen staff training and development

(c) Finance

- Financial sustainability and cost-efficiency issues
- Public and staff's concerns over the transparency and equity in resource distribution

Strategic Framework

From the consultation process and analysis of our environment, three main strategic foci pertaining to the service, workforce, and financial aspects of HA were crystallised along with an array of strategies which map out the corporate priorities for HA to work towards in addressing the key issues. The three strategic foci are as follows:

- **Provide patient-centred care** - Ensuring patients have timely access to high quality and responsive services which place patients firmly at the heart of their care. This is carried out through multi-faceted strategies that are geared towards improving service quality and optimising demand management. Core to this will be a fundamental transformation in the way we deliver care, to streamline care processes and improve care efficiency and effectiveness, and engage patients as key partners in healthcare.

- **Develop a committed and competent workforce** - Continuing the development of a competent workforce with a shared sense of common purpose and values as members of "One HA" family, by making HA a workplace that attracts and retains staff as well as through enhancing staff training and development.

- **Enhance financial sustainability** - Driving accountable and efficient use of financial resources through improving financial planning and enhancing the transparency and equity of resource allocation.

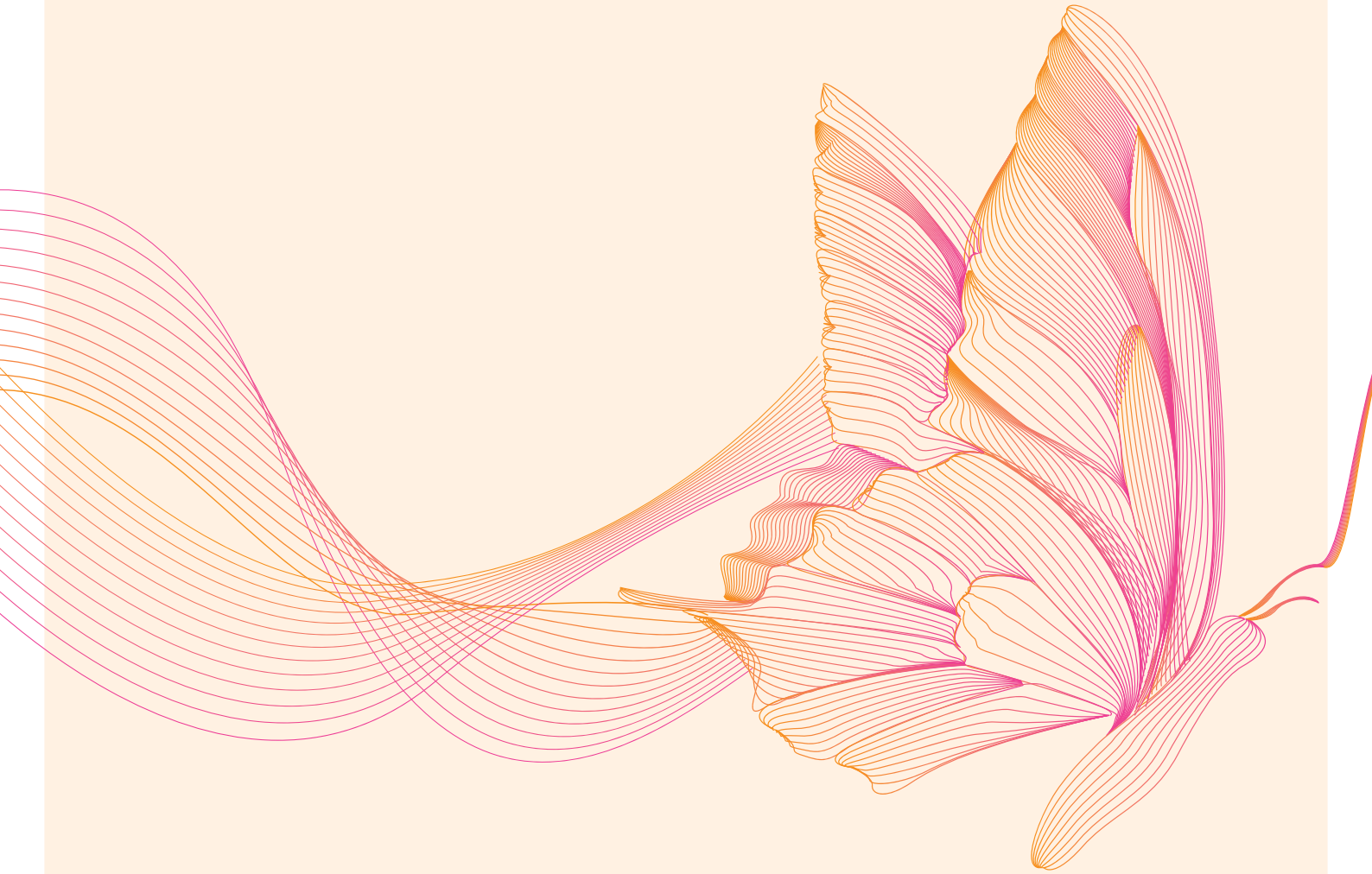
Set out in the ensuing chapters are the strategic goals, directions and strategies for achieving the three strategic foci. Key actions of the strategies are also highlighted as concrete examples for implementation.

The strategic goals delineate what HA wants to achieve; the strategic directions outline the broad directions HA will pursue for achieving the goals; and the strategies map out what HA needs to do in order to meet the goals. Presented below is the overall framework which illustrates how the strategies relate to HA's vision.

Strategic Focus	Strategic Goals (What we want to achieve)	Strategic Directions (Where we are going)	Strategies (How we get there)	HA Vision
Provide Patient-Centred Care	Improve service quality	Enhance access & efficiency	Promote day services	Healthy People
			Strengthen service coordination & collaboration	
			Develop more options for patient care	
			Enhance community-based care	
		Improve safety & effectiveness	Develop service standards & common protocols	
			Refine clinical governance & performance management	
			Reinforce clinical risk management	
		Modernise HA	Refine technology planning and adoption to keep up with international standards	
			Upkeep existing equipment	
		Promote partnerships with patients	Empower patients for self-care	
			Engage patients in shared decision-making	
			Engage patients to support service improvements	
	Optimise demand management	Raise the capacity of priority services	Increase capacity of high demand services	
			Roll out service enhancements for time-critical care	
		Share out the demand	Reinforce Public-Private Partnerships (PPP)	

Strategic Focus	Strategic Goals (What we want to achieve)	Strategic Directions (Where we are going)	Strategies (How we get there)	HA Vision
Develop a Committed and Competent Workforce	Attract & retain staff	Improve staff management	Strengthen HR governance & transparency	Happy Staff
			Facilitate flexible working	
			Develop structured succession planning	
		Promote staff engagement & well-being	Build & share corporate culture & values	
			Develop ways to better engage & communicate with staff	
		Foster staff health & a safe working environment	Reinforce ways to support the health of staff	
			Strengthen Occupational Safety & Health	
	Enhance staff training & development	Strengthen training governance & policy	Coordinate the governance & organisation of staff training	
			Establish a mechanism to align training with career development	
		Improve training quality	Develop a quality assurance framework & raise staff training opportunities	
			Develop training themes to reinforce corporate purpose & values	

Strategic Focus	Strategic Goals (What we want to achieve)	Strategic Directions (Where we are going)	Strategies (How we get there)	HA Vision
Enhance Financial Sustainability	Drive accountable & efficient use of financial resources	Improve financial planning	Refine HA's financial projection model	Trusted by the Community
			Assess the fee structure in relation to service models	
		Enhance transparency & equity in resource allocation	Refine HA's Internal Resource Allocation approach	
			Enhance development & use of costing information	



Provide Patient-Centred Care

Our Strategic Goals

To ensure our patients have timely access to high quality and responsive services through pursuing the dual strategic goals of (i) improving service quality, and (ii) optimising service demand management.

The strategic directions for improving service quality are on enhancing care access and efficiency by re-orientating and transforming services to make them more streamlined and more responsive to the needs of patients during the course of their illness, improving the safety and effectiveness of care, modernising HA by refining the planning and adoption of technology, and promoting partnerships with patients. Complementary to these we will continue to raise the capacity of our priority services and share out the demand with community partners so as to help optimise demand management.

Key Challenges the Strategies will Address

Through the strategies, we will address the following key challenges:

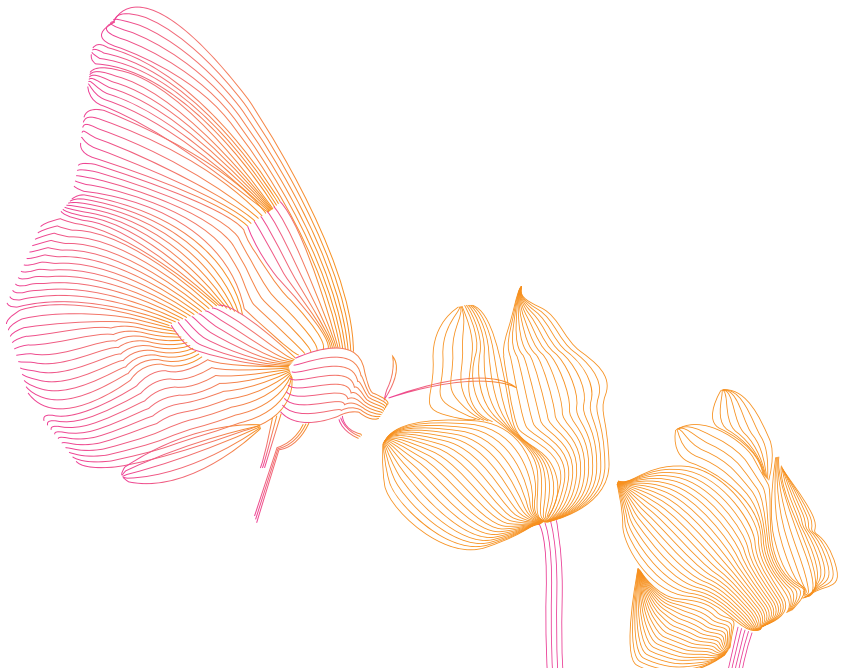
- Escalating service demand arising from population growth and ageing
- Access and waiting time issues in service delivery
- Care efficiency issues where patients need to go through multiple specialties and make repeated visits to hospitals and clinics in order for their health conditions to be managed
- The need to keep up with advances in technology and international standards

In keeping with HA's mission of "helping people stay healthy", we recognise that every patient is a unique individual with their own needs and preferences in the care that they receive. Our ambition is hence to provide patient-centred care that encompasses the following key attributes:

- Treating patients with dignity, compassion and respect;
- Offering coordinated and personalised care according to patients' needs;
- Communicating with and engaging patients in the care process;
- Imparting information and knowledge to enable patients to effectively navigate and manage their care; and
- Ensuring patients' access to necessary care.

However, as reflected in the environmental scanning, there is much room for improvement in delivering the types of patient-centred care that we aspire to. In particular, our current service models do not facilitate coordinated and personalised care. For example, an elderly patient with common ailments like hypertension, diabetes and rheumatism has to visit multiple specialist clinics in HA although these conditions could be managed by a general medical doctor at the same time. Besides creating unnecessary visits, waiting time and inconvenience for patients, the current practice also results in fragmented care and loss of continuity from the patient's perspective. Moreover, it leads to additional demand generated internally on top of the escalating demand arising from population growth and ageing. Our patient satisfaction surveys also indicate that more needs to be done in terms of communication with patients and their families and involving them in decision making about their care.

Furthermore, patients have problems accessing our services despite much effort has been put into enhancing our capacity. There are prolonged waiting times for new patients to SOPC services. One of the reasons is that our SOPC are cluttered with follow-up cases, many of whose conditions are stabilised and could be followed up in the primary care setting. Similarly, there is access block



to inpatient care, which reflects system-wide issues related to patient flow and management and service models. This includes an over-reliance on inpatient care even though many of the services could in fact be provided on a day service basis or in the primary care or community setting that are more convenient to patients and could better meet their needs according to international healthcare experience.

Hence a key direction in the coming years is to enhance the access and efficiency of care through strategies that re-orientate and transform our services, with a strategic focus on promoting patient-centred care. This means designing and organising services from the patients' point of view and according to their needs, as well as ensuring they are safe, effective and equitable. Patient-centred care also means providing services in the community, closer to patients' homes. This entails closer collaborations with community partners, as well as patient groups. Furthermore, it involves forging partnerships with patients and empowering them with the knowledge and skills necessary for managing their own health and making informed choices about their healthcare.

At the same time, we will continue to enhance the capacity of our priority services as well as share out our service demand with community partners so as to optimise demand management.

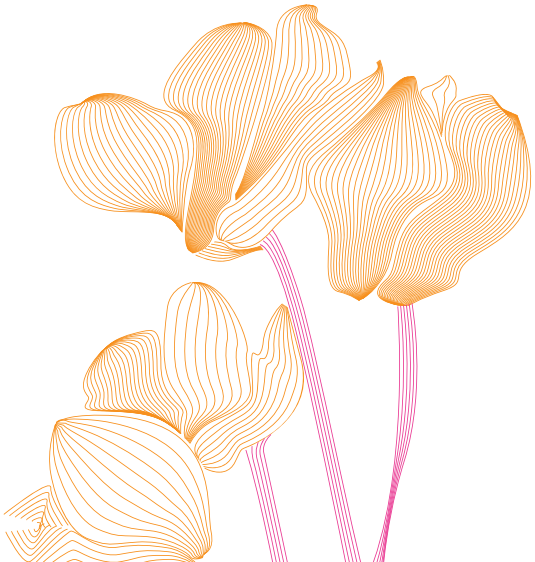
Overall, there are two strategic goals along with six strategic directions to enable the provision of patient-centred care:

(a) Strategic Goal: Improve Service Quality

- Enhance access and efficiency
- Improve safety and effectiveness
- Modernise HA
- Promote partnerships with patients

(b) Strategic Goal: Optimise Demand Management

- Raise the capacity of priority services
- Share out the demand



Strategic Goal: Improve Service Quality

Maintaining and strengthening quality and safety is a top priority in the planning and running of our services. In the coming years, focus will be placed on transformational and system-wide approaches in re-orientating our service delivery models, so that they are more streamlined to meet the needs of patients and are provided in the most appropriate setting, at the right time and by the right person, to deliver the best possible outcomes. This includes looking beyond the hospital walls and into the community by fostering partnerships with community partners.

At the same time, we will improve the planning, consistency and standards of care, so as to support better coordination of services and technologies as well as more standardised practice and eliminate unwarranted variations in care across HA. This will also help to strengthen the interface between services and smooth patient flows by providing well-delineated and effective clinical pathways and service roles spanning the continuum of care.

In addition, we will make efforts to refine our clinical governance and performance management, strengthen accountability and support continuous quality improvement, while also taking steps to reinforce our clinical risk management approaches and processes for safer services.

Moreover, integral to improving our service quality is the recognition that patients should be at the centre of the web of services they receive, and are the key partner in their care. As such, they should be involved in planning and decision-making at every step of their healthcare journey.

Overall, relevant strategies for improving service quality are as follows:

- Enhance access and efficiency by promoting day services, strengthening service coordination and collaboration, developing more options for patient care, and enhancing community-based care.

- Improve safety and effectiveness by developing service standards and common protocols, refining clinical governance and performance monitoring, and reinforcing clinical risk management.

- Modernise HA by refining technology planning and adoption to keep up with international standards, and upkeep existing equipment.

- Promote partnerships with patients by empowering patients for self-care, engaging patients in shared decision-making about their care, as well as engaging patients to support service improvements.

Enhance Access and Efficiency

We will enhance access and efficiency by improving the way HA services work together so that they are more attuned and responsive to meeting patients' healthcare needs and enabling them to stay healthy in the community. This requires integrated and connected working across different settings, so that it is well-coordinated and focused on the different levels of patient needs during the course of their illness, from acute services provided in hospitals, through to rehabilitation and recovery, as well as maintenance and management in outpatient and community settings.

This necessitates changing the traditional hospital-centric service delivery model to one that is more balanced with the provision of day, primary care and community services for matching the right level of care with the healthcare needs of the patient.

We aim to re-orientate the service delivery model so that the appropriate level of care can be provided to patients and organised in a way that is more accessible and reduces the need for patients to seek multiple services. The key strategies include (i) promoting day services; (ii) strengthening service coordination and collaboration; (iii) developing more options for patient care; and (iv) enhancing community-based care.

Promote Day Services

We will enhance day services and develop new models of day services so as to reduce the reliance on inpatient care and improve access to services. Day service models, in which patients are able to receive their care or treatment and return home within a single day, are applicable to both emergency and elective services according to overseas experience.

In this regard, the promotion of day services is one of the cornerstone strategies for re-balancing the way we deliver care and providing greater convenience for patients, who can better retain their independence and stay connected with their families, and can remain in the community with their social and other support networks. This was also echoed in the HA Review, which recommended more focus on ambulatory services to provide comprehensive care and support for patients, particularly for elderly patients.

In order to steer and guide the promotion of day services we will establish the principle that *every elective patient and some suitable emergency patients should be appropriately considered for day services before admission*.

The focus in the coming years for the development of day services will be on high volume function-based / procedure-based services, such as diagnostic imaging, endoscopy and day surgery. Regarding day surgery, an important component will be to set up cross-specialty / discipline pre-operative clinics to offer "one-stop" day service for pre-operative assessment, risk stratification, patient counselling, etc. as part of the peri-operative model. Integrated day rehabilitation centres with transport support, including services for young stroke patients, will also be developed and enhanced so that the patients can be discharged in a timely manner and receive rehabilitation on an ambulatory basis to aid their recovery.

In terms of facilities, ambulatory centres and day services will be incorporated into hospital development projects, so that the facilities are available and accessible in every Cluster. In addition, we will explore the development of a major ambulatory centre at a centrally located site to help take forward the service model. For example, with the plan to decant the services of Queen Elizabeth Hospital to the new acute hospital to be set up at the Kai Tak Development Area, consideration will be given to developing the vacated King's Park site into a major ambulatory centre providing territory-wide services. Offering a central and accessible location to patients, the centre could facilitate the provision of a range of multi-disciplinary day services under one roof according to a patient's needs and urgency, including one-stop services for diagnostics, assessment, treatment, interventions and other patient support services.

International experience suggests that standalone day service settings can contribute to patient satisfaction with their care, with patients feeling less anxious, and there is less exposure to infection when compared to the hospital setting[3]. It is also shown that free standing day surgery centres can provide ease of patient scheduling and help support shorter waiting times because there is no possibility of emergency surgeries pre-empting a scheduled procedure as is often the case in an acute hospital. Moreover, since free standing day service facilities focus on a select number of procedures at high volume, this allows healthcare professionals to perfect their craft and deliver high quality patient outcomes, while at the same time contributing to service efficiencies and better economies of scale.

Strengthen Service Coordination and Collaboration

Optimal patient care involves a coordinated approach by multidisciplinary teams of healthcare professionals. This requires support from a well-integrated and connected system of services and facilities for the provision of seamless and streamlined care across different settings. In this regard, we will strengthen the organisation of services through developing cluster / network-based approaches, as well as focusing efforts on removing the bottlenecks in patient flow, so as to strengthen service coverage, accessibility and smooth patient transitions along the care pathway.

(a) Develop Cluster / Network-based Services

We will promote the development of Cluster / network-based services or structures to improve the coordination and collaboration between specialties and disciplines for more streamlined care, as well as to support the concentration of expertise and optimal use of facilities. For many specialties and disciplines, this can help to enhance their service coverage, capabilities and capacity, such as through cross-hospital / team collaborations. For example, services for the treatment of acute coronary syndrome are to be enhanced through the setting up of Cluster-based cardiac teams according to the Strategic Service Framework (SSF) for Coronary Heart Disease issued in 2013. While for rehabilitation services, developing a Cluster network model in accordance with the SSF for Rehabilitation Services, formulated in 2016, will help to increase service coverage and enhance accessibility to rehabilitation along the patient journey. We will also formulate SSFs for particular service areas involving multi-specialty / disciplinary coordination. For instance, we are in the process of formulating a SSF for Palliative Care to map out the service models and development for palliative and end-of-life care so as to strengthen the service organisation for more integrated and seamless care. In addition, Cluster / network-based approaches can help to support the management of caseloads between hospitals through redistribution of cases, as well as in optimising the use of facilities like operating theatres in delivering more efficient and timely care.

3 Castoro, C. et al. (2007). *Day Surgery: Making it Happen*. Copenhagen: WHO Regional Office for Europe, on behalf of the European Observatory on Health Systems and Policies.

Likewise, using Cluster / network-based approach for clinical supporting services like radiology and imaging reporting, pathology, pharmacy, allied health services, as well as some back-of-house functions, could further reinforce and complement cross-hospital collaborations and reinforce their service capabilities and hence patient access to care. For example, the development of Cluster-based pharmacy support after hours through real-time vetting of prescriptions by off-site pharmacists could facilitate the timely dispensing of drugs in non-acute hospitals.

Cluster / network-based approaches will also be leveraged in the community care setting. For instance, we will seek to bring the nursing components of community outreach services, such as the CNS, CGAT and palliative nursing outreach services under a Cluster nursing structure to provide more joined-up and holistic care. This will help to reduce unnecessary referrals between nursing teams for patient assessment and management, and strengthen the role of nursing support in the community. It will form part of overall efforts to consolidate community outreach services in order to minimise duplication and fragmentation in their organisation and to enhance the continuity, synergy and coordination in their service delivery. For example, for an elderly patient in a Residential Care Home for the Elderly (RCHE) in need of wound care, rather than referring the case to the CNS for follow-up after assessment, the CGAT nurse could also provide wound care during their visit. As a result, the patient receives timely care with good continuity provided by the same healthcare professional.

(b) Remove the Bottlenecks in Patient Flow

In addition, to facilitate better coordination across the patient pathway and to address the bottlenecks in patient flow, specific services in hospitals will be extended to cover the weekend and public holidays. This includes inpatient rehabilitation services such as those provided by allied health professionals in order to maximise patient recovery and transition back to the community. Weekend and public holiday ward rounds by doctors and other related supporting services will also be enhanced to facilitate timely discharge of patients and help reduce unnecessary hospital stay. Given the backdrop of rising hospital demand, having uninterrupted rehabilitation services and timely discharge throughout the week will help to bolster bed turnover and smooth out patient flow, thereby optimising bed use and help address access block issues.

Moreover, early initiation of rehabilitation care in the acute setting has been shown to maximise patient recovery potential and functional restoration[4,5]. Providing rehabilitation on weekends has also been found to improve functional independence and health-related quality of life, and reduce length of stay[6]. In addition, increasing rehabilitation coverage on weekends and public holidays enables patients to have timely access to inpatient rehabilitation care once their acute condition is stabilised. This not only reduces the idle time of patients waiting for rehabilitation during weekends or public holidays, but also supports the operational efficiencies of upstream services, such as more surgeries performed on a Friday.

On the whole, targeted efforts will be expended in the coming years on developing HA's rehabilitation services so as to strengthen its role and coordination with other services in the care pathway for optimising patient outcomes. Its service model and system infrastructure will be guided by the SSF for Rehabilitation Services, which covers the rehabilitation care pathway from acute to rehabilitation settings as well as integration of patients into the community.

In addition, we will revisit our admission and discharge policies, as well as bed coordination and management, to enhance patient flows and help address access block. In particular, we will review and revise the admission and discharge policies of hospital departments to ensure they are incentivising the timely discharge of patients who are medically ready, while at the same time facilitating the timely admission of emergency patients.

In this connection, integrated discharge planning for acute and extended care settings will be promoted so as to further smooth out the transition and transfer of patient care between the two settings and also to the community. This will bring about a more coordinated approach to care, in which healthcare professionals across the different settings are able to interact with the same patient and his / her carers in a timely manner, and provide them with information about the anticipated length of stay and discharge arrangement to facilitate the planning of rehabilitation services and community or social care support as required.

4 Paolucci, S. et al. (2000). Early versus delayed inpatient stroke rehabilitation: a matched comparison conducted in Italy. *Archives of Physical Medicine and Rehabilitation*; 81:695-700.

5 Maulden, S.A. et al. (2005). Timing of initiation of rehabilitation after stroke. *Archives of Physical Medicine and Rehabilitation*; 86(12) Suppl. 2: 34–40.

6 Peiris, C.L. et al. (2013). Additional Saturday rehabilitation improves functional independence and quality of life and reduces length of stay: a randomised controlled trial. *BMC Medicine*; 11:198.

At the same time, the strategies for promoting service coordination and collaboration also cover palliative and end-of-life care. For example, for those patients with terminal illness who no longer benefit from curative treatment or do not wish to receive curative interventions, but require the management of pain and symptoms, we will develop palliative and end-of-life care through a multidisciplinary approach, particularly in the community setting according to their needs. The aim is to offer these patients and their families greater choice about the care they receive in a more holistic and streamlined manner. This is especially important in end-of-life care where over-treatment and unnecessary intervention can subvert the preferences of patients to die in the manner and place of their choosing. The development of palliative and end-of-life care will be in accordance with the SSF for Palliative Care currently being formulated.

Meanwhile, we will look at combining the community care and outreach palliative care teams to provide more joined up and comprehensive care. As outlined in the HA Review Action Plan, CGATs will work together with the Palliative Care teams and NGOs to enhance medical and nursing care for terminally-ill elderly patients living in RCHEs, and to provide training support for RCHEs staff so as to enhance their care and reduce unnecessary admission of these patients to the hospital.

Overall, enhancing service coordination and collaboration will require the concerted efforts of staff from across the different levels of care. This will involve progressively refreshing clinical pathways in order to map out and embed new service delivery models and shore up patient flows. In this regard, we will seek to establish common clinical disease-based pathways, protocols and referral mechanisms to improve the consistency and standard of care (for further details please refer to page 56). Moreover, we will explore developing a platform to facilitate deliberations on enhancing the interface and integration of care across different service settings, such as between hospitals and the community.

Develop More Options for Patient Care

In addition, we will develop more options for patient care so as to enhance access to the appropriate level of care and reduce the need for patients to seek multiple services. The approach values people's time as they move through the healthcare system, by looking at it from the patient's perspective to make the system more integrated. The focus will be on (a) providing the AED with more patient management options, (b) developing a broad-base holistic medical model for patients with multiple conditions, and (c) refining the way SOPC manages cases.

(a) Provide the AED with More Patient Management Options

Besides providing emergency care like trauma service and resuscitation, AED in HA is currently also triaging patients so that patients requiring treatment are either admitted for inpatient care or referred to SOPCs. We will explore providing AED with a greater range of care pathway options so as to reduce unnecessary hospital admissions or referral to SOPCs, which includes, for instance, referring patients to:

- urgent ambulatory or day services, including fast-track clinics for patients whose medical conditions are not life-threatening or organ-threatening and have the potential to be resolved within a short time frame. This involves priority access to diagnostics followed by arrangement of therapeutic interventions where appropriate, supported by an integrated team of professionals with close collaboration with relevant specialties and disciplines;

- a day centre for the treatment of minor injuries;

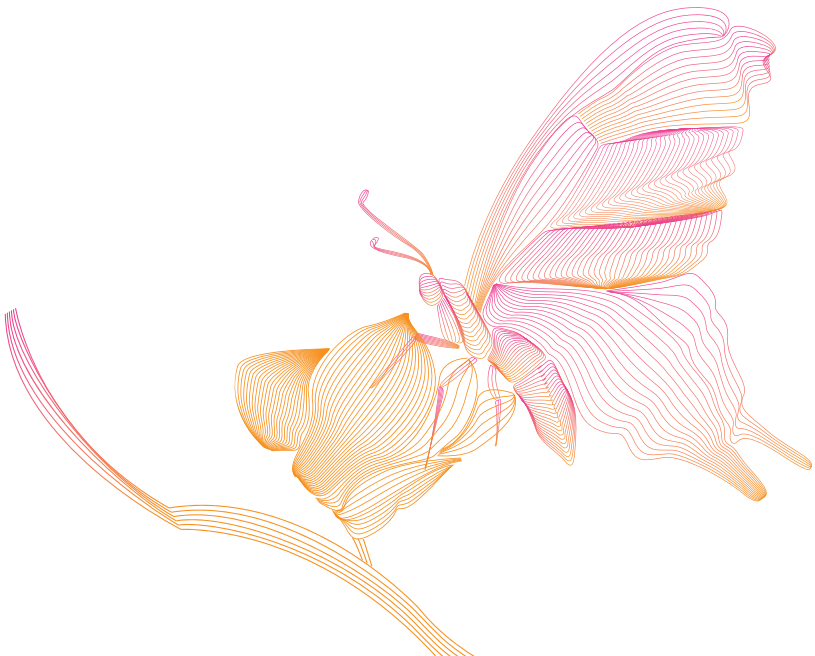
- an extended care hospital if inpatient convalescent / rehabilitation services are required; or

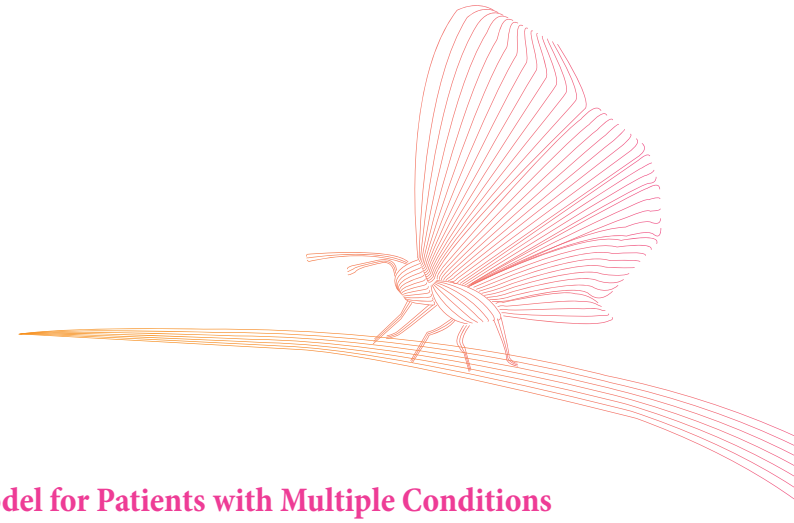
- a community care team if the patient could return home with community support services.

Moreover, given the rise in demand from a growing elderly population, geriatricians could help to support the assessment and treatment of elderly patients in the AED, especially during winter surge. For example, under the "geriatricians at hospital's front door" model, suitable elderly patients can be discharged directly from AED and referred to community care if needed, after being assessed and treated by geriatricians, while patients requiring hospital care will be admitted for more intensive treatment and management. This helps to reduce the need for hospital admission and address the access block issue, while also ensuring that care is provided to elderly patients at the right time and place.

Overall, for effective management of the winter surge, we will refine our response plans and step-up measures on a regular basis. This is overseen by the Taskforce on winter surge that has been set up to coordinate the measures taken by the different Clusters in managing the surge demand. In addition, upstream measures, such as seasonal influenza vaccination for healthcare staff and target groups (e.g. the elderly, chronic disease patients, pregnant women, etc.) will continue to be implemented.

Furthermore, as indicated in the HA Review Action Plan, we will deploy more medical and nursing manpower as well as re-engineer the work process for Triage III cases of AED in order to facilitate early assessment and intervention of the cases.





(b) Develop a Broad-based Holistic Medical Model for Patients with Multiple Conditions

To better meet the needs of patients with co-morbidity or chronic conditions, the development of a broad-based and holistic medical model will be explored so as to reduce service fragmentation and promote the streamlining and continuity of care. For instance, an elderly patient who has concurrent diabetes, hypertension and rheumatism can be managed by an internal medicine specialist or a geriatrician, and will need referral for sub-specialty care only if the conditions are complex. Within the model, a "hospital generalist" can also take care of patients with conditions that do not fit under a particular specialty or sub-specialty, yet require care in the acute inpatient setting. At the same time, in view of the high prevalence of patients with co-morbidity and chronic conditions, there is a need for sub-specialists to help manage the general caseloads as well.

(c) Refine the Way SOPC Manages Cases

Another major focus is to streamline the management of caseloads in the SOPC service, as a means to bolster capacity and enhance access by better aligning the level of care with patient need. This begins upstream by strengthening the appropriateness of the referrals, enhancing the gatekeeping role of Family Medicine (FM), enhancing the electronic referral system, as well as reviewing and aligning the appointment scheduling practices of SOPC, as outlined in the HA Review Action Plan.

Other initiatives include facilitating greater access of GOPC or Family Medicine Specialist Clinic (FMSC) to certain investigations and specialist drugs in order to support management of patients at the primary care level, so as to reduce the need for specialist referral. For example, we will be piloting Low Back Pain (LBP) clinics at the FMSC to relieve the pressure on orthopaedic and traumatology SOPC service. Customising and expanding the model to other appropriate specialties / Clusters will be explored as a means to help support timely access to care. To facilitate collaboration, a clearer delineation of the roles between SOPC, FMSC and GOPC may be required.

Moreover, to streamline sub-specialty caseloads, it is important to ensure that new cases referred to SOPC are triaged in general clinic in the first instance and channelled to sub-specialists only when necessary. At the same time, sub-specialists will need to manage the general caseload as well. Also, to reduce the need for multiple consultations, case discussions and joint or combined clinics could be carried out where necessary, so as to better streamline and coordinate care. For instance, in the case of a combined diabetic and renal clinic for the initial management of diabetic patients who have developed complications.

Additionally, SOPC exit mechanisms will be established for patients with stable conditions who no longer require specialist care, so that they can get the care and treatment they need in the community with the right support. Examples of the exit mechanisms include nurse / allied health step-down clinics, and follow-up management by primary care clinics or by the original referring private practitioners, with the option of fast-track specialist consultation where necessary. In this regard, we will regularly review and refine specialty-based clinical protocols to encourage the referral of medically stable patients for follow-up at step-down clinics or by primary care services.

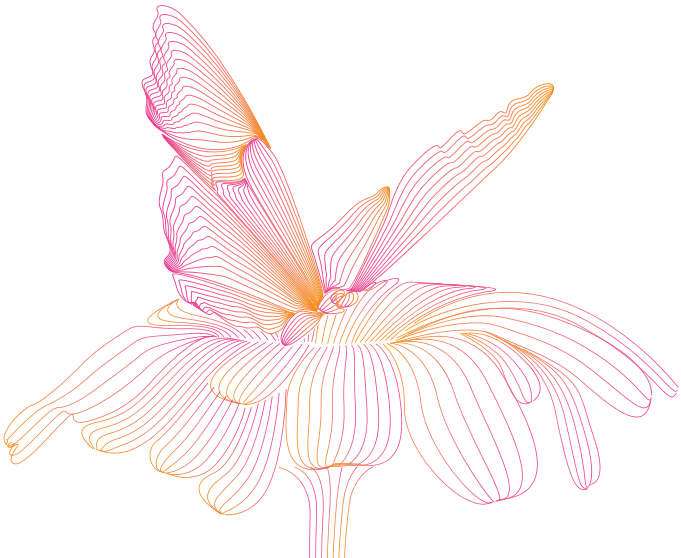
Enhance Community-based Care

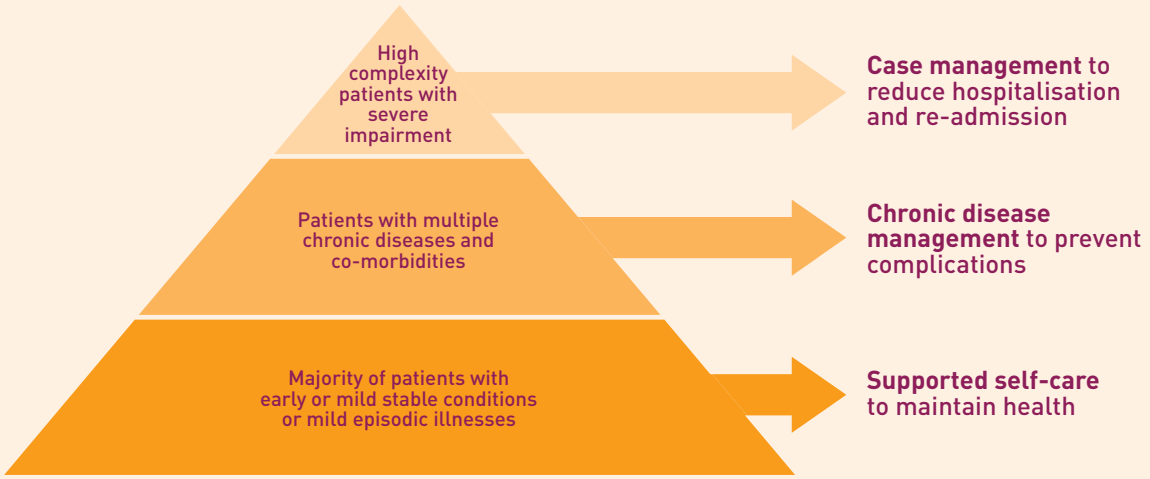
For the high number of elderly and chronic disease patients, most of them are able and prefer to receive their care in the community so that they can maintain their independence as well as family and social connections. Accordingly, efforts will be put into developing community-based services to support patients' health and disease management.

Overall, the focus areas on enhancing community-based care in the coming years are to (a) strengthen discharge support for elderly and chronic disease patients; and (b) foster collaborations with community partners.

(a) Strengthen Discharge Support for Elderly and Chronic Disease Patients

Over the past few years, we have rolled out various measures to enhance care and support for elderly patients in line with the strategies of risk-stratified care outlined in the SSF for Elderly Patients published in 2012. One of the key strategies was to provide post-discharge support in the community for high-risk elderly patients under a case management approach so as to reduce hospital re-admission. For example, the integrated discharge support programme (IDSP) is provided in collaboration with NGOs for high-risk elderly patients who may otherwise require hospital re-admission. The Community Health Call Centre of HA also provides telephone support for discharged high-risk elderly patients and links them to ambulatory and community care services, such as primary care clinicians and NGOs.





The diagram is adapted from the Kaiser Permanente model on different levels of chronic care (Kaiser Triangle)

In the coming years, we will reinforce post-discharge support for elderly as well as for chronic disease patients with complex needs, so as to facilitate their integration and maintenance in the community and to reduce the need for re-admission. Options include:

- Extending the service hours of the CNS to enhance coverage;
- Developing broader roles for the CGAT, particularly in rehabilitation and in the provision of direct care for patients residing in RCHEs;
- Enhancing outreach services to RCHEs in terms of nursing, pharmacy and allied health support, as well as in carer training;
- Leveraging on the development of Community Health Centres (CHCs) to support the provision of a range of coordinated community services; and
- Developing seven-day community support services to provide uninterrupted care for patients and reduce weekend or holiday admissions.

(b) Foster Collaborations with Community Partners

Overall, we will enhance our collaborations with community partners, including patient groups, self-help groups, private sector and NGOs in the development of community-based services, particularly in post-discharge support for patients in terms of social and personal care.

For instance, we will continue to develop partnerships with NGOs to help provide home support services and facilitate patients to receive ongoing care in the community. This includes services for personal care, home-making and modification, provision of meals, transportation, "elder sitter" services, escort, and transitional residential respite care.

At the same time, we will continue to work with the Social Welfare Department and NGOs to improve the coordinated provision of health and social care. For instance, as highlighted in the HA Review Action Plan, we are proactively working with these partners to develop a collaborative service model with enhanced geriatric support for a large-scale RCHE in Lam Tei of Tuen Mun District.

Key Actions on Enhancing Access and Efficiency

- Develop new models of day services
- Develop Cluster / network-based services or structures
- Enhance rehabilitation services based on the SSF for Rehabilitation Services
- Develop and reinforce integrated discharge planning and discharge support for elderly and chronic disease patients
- Enhance weekend and public holiday ward rounds by doctors to facilitate timely discharge
- Develop different care pathway options for AED and promote the "geriatricians at the front door" model
- Refine response plans and step-up measures on a regular basis to address winter surge
- Develop a broad-based holistic medical model for patients with multiple conditions
- Refine SOPC referrals and caseload management, and develop SOPC exit mechanism
- Strengthen palliative and end-of-life care in accordance with the SSF for Palliative Care
- Enhance community partnerships and work with Social Welfare Department and NGOs to improve coordination of health and social care

Improve Safety and Effectiveness

Given the high volume, variety and complexity of HA services, it is important to maintain robust clinical governance structures and risk management systems to ensure high clinical standards and safety. At the same time, in support of more patient-centred care, we will further enhance the alignment of practices across HA in order to achieve greater consistency in the care patients receive and to help ensure that the care provided is evidence-based, effective, equitable and safe. Our key strategies in this respect are to develop service standards and common protocols, refine clinical governance and performance management, and reinforce clinical risk management.

Develop Service Standards and Common Protocols

Key to enhancing service quality and complementary to the service transformation strategies, it will be essential to establish common disease-based clinical pathways, protocols and referral mechanisms in order to better standardise practices and processes to support the interface and smooth transition of patients between care settings. Specifically, this will strengthen the development of more integrated care by mapping out patient pathways and flows, and providing clearer role delineations for the different services across the care continuum. In connection to this, the scope and management of case managers will be reviewed to ensure their roles support care pathways for more complex cases.

At the same time the promotion of evidence-based standards and guidelines will help in efforts to achieve more standardised care and strive towards reducing any unwarranted variation in service provision. For example, more standardised pathways for stroke rehabilitation could help to improve the consistency of care and support patients across different settings. Protocol-based care will also be leveraged to facilitate the timely management and discharge of patients with uncomplicated conditions, while those with more complex conditions are referred for specialist care in an expedited manner. For example, the adoption of a "treat-to-target" concept could help to optimise patient management and thus support better outcomes.

Of note, the development of clear protocols is especially important in the setting up of SOPC exit mechanisms, so that objective criteria are in place for the reference of healthcare professionals, which could help to manage patients' expectations, alleviate concerns from patients, and facilitate referrals to step-down clinics or primary care services for follow-up.

Overall the development of service standards and common protocols will help to reduce inconsistencies in care and minimise the potential for errors, as well as to streamline care and provide a basis for monitoring the performance of clinical services.

Refine Clinical Governance and Performance Management

We will continue to refine clinical governance and performance management in order to assure and improve the standard, quality and safety of services. In particular, in accordance with the HA Review Action Plan, efforts will be placed on (a) strengthening accountability, (b) rolling out credentialing, and (c) enhancing performance monitoring and continuous quality improvement.

(a) Strengthen Accountability

To strengthen clinical governance and accountability, the roles of COC/CCs are being enhanced in the development of clinical practice guidelines, setting of service standards, education and training, conducting clinical audits, clinical risk management and in the introduction of new technology and service developments. In this regard, a standardised set of Terms of Reference will be issued and promulgated through which individual COC/CCs will be entrusted and required to carry out, with progress monitored. At the same time, the role of COS will be reviewed and enhanced, with a greater emphasis on clinical governance, particularly with regard to the quality of patient care and safety of their respective clinical department. This COS management function, as related to clinical governance, will be built into the COS appointment and staff appraisal procedure to enhance accountability.

(b) Roll out Credentialing

In parallel, given the increasing complexity of modern healthcare and latest technologies requiring sophisticated skills and competency, we will put in place a staff credentialing system for selected procedures. It defines the criteria in terms of qualifications, training and experience requirements, as well as the scope of practices so as to assure professional standards and staff competence in performing specific procedures. We will monitor the roll out of the credentialing system with a view to identifying areas for further refinement and future development.

(c) Enhance Performance Monitoring and Continuous Quality Improvement

HA's Key Performance Indicator (KPI) framework is an important management tool for regular tracking and monitoring of performance internally by the HA Board and HAHO, as well as externally by the Government and the public. We will continue to regularly review and fine-tune KPIs to support the monitoring of service standards and quality, facilitate service planning and resource allocation, and drive best practices.

As mentioned in the HA Review Action Plan, the emphasis is on developing KPIs to reflect capacity and service efficiency, with a focus on the key pressure areas of access to SOPC and Operating Theatre services, and the issue of access block. We will use these to monitor the impact of new models of operation and actions aimed at addressing these pressure areas. At the same time, we will explore developing and refining KPIs in specific clinical services to help drive service improvements. For example, KPIs for cancer services could be further refined to facilitate the distinction between time to surgical and radiological treatments in order to better identify service gaps and focus service improvements. Another example is the development of standard admission criteria for the intensive care unit (ICU), together with corresponding KPI in order to monitor the accessibility of ICU service.

Similarly, programmes to support continuous quality improvement will be bolstered. These include continuing to roll out the hospital accreditation programme, which has helped HA modernise and benchmark itself against international best practices on many fronts. This has led to noticeable improvements in the areas of instrument disinfection and sterilisation, introduction of surgical instrument tracking and tracing, phasing out of the practice of reusing higher risk single-use devices, and care planning and evaluation.

We will also continue to reinforce clinical audit and outcomes monitoring as an essential part of developing quality and safety improvement measures in patient outcomes. For example, riding on the experience of the Surgical Outcome Monitoring and Improvement Programme (SOMIP), we will explore the development of other similar programmes across HA, such as for transplant services, while currently under development is a local risk-adjusted model for intensive care outcome monitoring.

Reinforce Clinical Risk Management

Meanwhile, we will continue to reinforce clinical risk management through a comprehensive approach to risk reduction in patient care, by building a safety culture and adopting safer service models. The approach involves the proactive management of clinical risk, as well as the identification and management of adverse events.

Proactive management of clinical risk begins with the identification of those events or circumstances which could put patients at risk of an adverse outcome. This involves regularly assessing the likelihood of a risk happening as well as the impact should the risk occur. In this regard we will continue to draw upon a range of sources in order to build a comprehensive picture of our clinical risks. These include input from healthcare professionals, KPI reports, clinical audits and outcomes monitoring like the SOMIP, as well as Annual Reports on Sentinel and Serious Untoward Events, etc.

In order to manage clinical risks we will continue to strengthen our mitigation and reduction measures with a view to eliminating or minimising risk. This includes incorporating systems for risk mitigation, safety awareness and checks into clinical pathways and care processes, such as for surgical and medical procedures, radiology and pathology services, as well as medication prescriptions, etc. It also involves the consideration of human factors in the development of standardised care pathways, protocols and care processes to minimise risk, especially in high-risk environments and areas such as the operating theatre. In this connection, the use of IT will be leveraged to support staff in care workflows and help guard against potential errors, such as through electronic alerts and flagging of relevant patient information (especially critical information and results such as medication contraindications), electronic prompts on equipment for staff to confirm prior to initiating treatment, as well as patient and specimen identification technologies.

Likewise, we will continue to reinforce infection control measures to help reduce and prevent disease outbreaks in wards, as well as implementing the “find and confine” strategy in the treatment and management of multi-drug resistant organisms (MDRO) like vancomycin-resistant enterococci. Moreover, possible ways will be explored to further enhance our capabilities for early pathogen detection, such as through molecular technologies, use of IT platforms to facilitate reporting of infectious disease cases and monitoring of outbreaks, as well as database for the tracking and monitoring of microbes like MDRO. In addition, as part of the Government Vaccination Programme, we will continue to encourage the voluntary uptake of free seasonal influenza vaccination by HA staff, to help protect both staff and patients.

In addition to risk mitigation measures, we will continue to take steps to prevent risk in the first place. This includes promoting a strong culture that values teamwork, collaboration and open and effective communication, strengthening occupational safety and health (OSH), and undertaking staff education on clinical risk management, as part of an overall approach to nurturing an environment of assurance, preparedness and prevention. This includes continuing to integrate patient safety in training to interns and junior doctors, as outlined in the HA Review Action Plan.

Also, as part of the ongoing cycle of clinical risk management we will regularly review, monitor and evaluate the specific measures for risk mitigation and prevention in order to determine whether they are producing the anticipated outcomes. In this regard, we will continue to regularly assess the clinical risks facing HA and formulate action plans to address them as appropriate.

At the same time, in response to managing adverse events we have already established an effective incident reporting mechanism, particularly through the Advance Incident Reporting System 3.0 (AIRS), and a culture of sharing from the root cause analysis of medical incidents. We will continue to refine our systems for timely detection, open disclosure, prompt and effective incident management and investigation, as well as taking corrective actions to reduce the risk of recurrence. Moreover, we will strengthen the sharing of lessons learnt from medical incidents with staff and the ways to disseminate information in a timely manner, as part of the culture of preparedness and prevention, for example through HA Risk Alerts and the Annual Reports on HA Sentinel and Serious Untoward Events.

Key Actions on Improving Safety and Effectiveness

- Establish common disease-based pathways and referral mechanisms for more protocol-based care
- Reinforce the structure and process of clinical governance and accountability
- Roll out and refine credentialing and explore further developments
- Regularly review and fine tune KPIs
- Continue to roll out the hospital accreditation programme
- Develop clinical audit and outcomes monitoring in selected services
- Continue to build a safety culture and adopt safer service models
- Leverage IT to support workflows and guard against potential errors
- Reinforce infection control measures and enhance pathogen detection and monitoring
- Continue to refine systems for incident reporting, management and sharing of lessons learnt

Modernise HA

HA strives to modernise technology to improve patient care through more precise diagnosis and effective treatment and less invasive intervention. However, introduction of technology requires careful deliberation so as to ensure they are evidence-based, safe, cost-effective and balanced against other priorities and opportunity costs, as well as adopted in a coordinated and timely manner for optimal accessibility and benefit.

Refine Technology Planning and Adoption to Keep up with International Standards

A cost-effective approach will continue to be taken in technology adoption, and HA will remain a "consensus adopter", which means implementing health technology that is generally accepted and broadly available in the market. Aligning with the recommendations of the HA Review, planning for the introduction of new services or technology will be centralised with advice and input from COC / CCs. The introduction will be deliberated through the annual planning mechanism, and will mostly be implemented by phases or first commenced with a pilot project. Examples of technologies that are relevant to HA services in the coming years include:

- Development of hybrid operating theatres in designated hospitals; robotics and computer-assisted surgery; minimally invasive surgery; and exploring the potential role of 3D printing technology.

- Build-up of infrastructure and expertise to beef up the treatment of life-threatening conditions or emergency cases according to the corporate direction, such as for Primary Percutaneous Coronary Intervention (PPCI), hyperbaric oxygen therapy, etc.

- Continued modernisation of equipment and assistive technologies to support effective rehabilitation, including the use of robotic rehabilitation devices.

- Continued review and updating of the HA Drug Formulary, HA Medical Devices Formulary, and HA Genetic Test Formulary.

- Exploring the use of Positron Emission Tomography – Computed Tomography (PET-CT).

- Development of genetic and genomic services (e.g. use of next generation sequencing technology), which would also require building up expertise in genetic counselling and bioinformatics.

- Preparation for the increasing application of molecular technologies in diagnostics, prognostication, targeted therapies and treatment monitoring (e.g. microarrays, cell-free DNA testing, etc.).

- Automation and digitalisation of certain services, for example increasing laboratory automation, digitisation of pathology imaging and analysis, automation to support more centralised pharmacy services, including for drug storage and supply chain logistics.

- Technologies for tele-medicine, tele-consultation and tele-monitoring, as well as developments of mobile platforms to support care delivery, such as the use of mobile apps and portable handheld devices.

Moreover, in accordance with the HA Review Action Plan, we will adopt a mechanism to guide the selection of centres for the provision of highly specialised services. The purpose of the mechanism is to ensure that service provision is well coordinated for optimal service efficiency and effectiveness, and that equitable access to services is provided to patients from different Clusters. The mechanism will provide a transparent process for centre selection and clearly outline the definition of highly specialised services, as well as the parameters for evaluation and decision-making. It will also ensure appropriate training and rotation opportunities for staff, including those outside the Cluster or centre providing the service, to facilitate career development of staff and service enhancement.

Upkeep Existing Equipment

In addition to the introduction of technology we will continue to upkeep the standard of existing medical equipment. This includes the replacement of medical equipment from wear and tear, which can be accelerated through changes in the care delivery model or instrument processing methods. For example regarding endoscopy services, the shift towards day procedures will result in increased wear and tear of endoscopes through more frequent use. Besides, we will continue to prioritise the phased replacement of obsolete or outdated medical and laboratory equipment in order to keep up with contemporary standards of medical care.

Key Actions on Modernising HA

- Remain a "consensus adopter" of technology and maintain a cost-effective approach to technology adoption
- Centralise the planning of new technology and services, with advice and input from COC / CCs
- Adopt a mechanism to guide the selection of centres for provision of specialised services
- Systematically replace outdated medical and laboratory equipment

Promote Partnerships with Patients

Patient engagement and participation in their care is an integral and indispensable part of delivering patient-centred care. This involves good communication between healthcare staff and patients and their families / carers so that decisions and choices about their care can be made together in partnership. It also encompasses empowering patients to actively participate in managing their own health through self-care. At the same time, the experience and views of patients about the care and services they receive will provide us with insight on what matters to them and how we can improve our services to meet their needs.

In this connection, in the coming years we will focus efforts on (i) empowering patients to support self-care; (ii) engaging patients in shared decision-making; and (iii) engaging patients to support service improvements.

Empower Patients for Self-Care

Patients who are more informed about their conditions and given the necessary knowledge and skills to be in control of their health are likely to be healthier, and even participate in providing mutual support for others. This is especially true for patients with chronic diseases, where optimal management of the conditions is contingent on patients themselves being knowledgeable and activated in managing their own health, according to the Wagner's Chronic Care Model[7]. Hence to improve chronic disease management, HA is putting in efforts to empower patients for self-care, in addition to providing protocol-based multidisciplinary care and community support for patients.

The Wagner Chronic Care Model comprises these inter-linked elements:

- Self-management support for informed and activated patients
- Community resources to meet patient needs
- Proactive multidisciplinary teams supported by clinical information systems and disease-based protocols

7 Wagner, E.H. (1998). Chronic disease management: what will it take to improve care for chronic illness? *Effective Clinical Practice*; 1:2-4.

In this regard, as outlined in the HA Review Action Plan, we will continue to leverage on collaborations with NGOs in the delivery of structured patient empowerment programmes (PEP) to improve patients' knowledge of their condition and enhance their self-management skills. Currently patient empowerment programmes cover diabetes and hypertension; we will consider extending the programme to cover other common chronic diseases such as heart disease and chronic respiratory disease.

At the same time, we will seek to align and enhance the roles of our Patient Resource Centres in supporting patients and their families / carers, including facilitating the connection with patient groups and self-help groups for mutual support. In particular, we will leverage on the valuable contribution patient groups play in helping to educate and motivate their fellow patients in promoting self-care.

In parallel, we will explore ways to further enhance existing platforms for providing information and patient support. This includes for example, extending the Community Health Call Centre to cover chronic disease patients from other settings in addition to the current target groups of post-discharged high risk elderly patients and diabetic patients in primary care. The SmartPatient Website will also be revamped to strengthen its function as a one-stop information gateway for patients, carers and the public to obtain information concerning disease education, health care and community resources.

In addition, developments in mobile technologies and electronic health will be leveraged as ways to support the dissemination of information to patients for enhancing self-care, including recognising the signs and symptoms of deterioration of their conditions so that they can seek appropriate healthcare services promptly. For example, for pharmacy services this includes strengthening drug information for patients and supporting medication compliance, such as through accessing information on medication side-effects by barcode scanning of prescriptions using smart phones, enhancement of patient information leaflets, and personalised medication management calendars.

Engage Patients in Shared Decision-Making

Patients should be at the heart of all that we do and be involved in their care as our key partners, including participation in the planning and decision-making at every step of their healthcare journey. Shared decision-making is about a collaborative process that allows patients and their healthcare team to make decisions together, taking into account the patient's values and preferences,

balanced with best available practice. The process provides patients with the support they need to understand their care options and to make the best individualised care decisions. The key to the success of shared decision-making lies in the interactions and conversations each patient has with their healthcare team during the course of their care.

Accordingly, we will strengthen staff training to enhance communication and engagement skills with patients and their families, so as to support more patient-centred practices. This includes effective information sharing with patients and carers to support collaborative decision-making and to help inform patients on the choices for healthcare and on the outcomes that matter to them. It also involves the development of skills in listening to the concerns or anxieties of patients and carers about their care and discussing the different care options available to them.

At the same time, patient information and education on HA services can enable patients to participate more fully as equal partners in their care and care planning. As such, the initiatives to empower patients for self-care will also help to reinforce the engagement of patients in shared decision-making.

Engage Patients to Support Service Improvements

We place great value in the role of patients and patient representatives in helping us to improve our services. We have already established a Patient Advisory Committee under the HA management structure to seek feedback and input from members on the development of HA services. In the coming years we will pursue initiatives to further nurture and engage patient leaders, such as involving them in advisory platforms and in service development. Separately, we will continue to make use of the corporate Patient Experience and Satisfaction Survey to proactively collect patient views on HA services and to identify areas for focused improvements to the quality of our services.

Key Actions on Promoting Patient Partnerships

- Empower patients to participate in self-care and enhance the roles of Patient Resource Centres
- Engage patients in shared decision-making about their care
- Nurture and engage patient leaders in advisory platforms and in service planning

Strategic Goal: Optimise Demand Management

Complementary to the strategies for improving service quality, we will also strengthen measures for optimising demand management. This includes targeted increase in the capacity of priority services of HA, as well as sharing out the demand.

Raise the Capacity of Priority Services

To address growing demand for priority services, there will be targeted and paced development of capacity within the HA system, tied in with the planning of manpower and other resources. The major strategies in this respect include expanding the provision of high demand services, and rolling out service enhancements to improve access to time-critical care for patients with life-threatening conditions.

Increase Capacity of High Demand Services

We will continue to build up service capacity for inpatient and outpatient services so that they better match the existing and future demand from local communities, especially in light of population growth and ageing and the rise in chronic diseases. In particular, efforts will be placed on strengthening our convalescent / rehabilitation service capacity to meet service needs.

Besides opening additional beds in our existing hospitals, we continue to adopt a long-term capital planning approach to guide hospital (re)development and expansion projects in view of their long lead time. Examples of capital projects coming to fruition in the coming years include the commissioning of services in the new Tin Shui Wai Hospital when its construction works complete in 2016, and the new Hong Kong Children's Hospital expected to commence service in 2018.

In addition, we have formulated a 10-year capital plan in 2015 to meet future service needs, in which a total of around 5,000 additional beds and over 90 new operating theatres will be provided through the (re)development and expansion projects of 12 hospitals, including the phase one development of a new acute hospital at the Kai Tak Development Area, planned to be completed in 2021. The service commissioning of the hospital development projects is expected to be carried out in phases in accordance with the prevailing service needs of the community and resource availability, which will be deliberated through the corporate annual planning mechanism.

At the same time, we will continue to enhance the service capacity of GOPC, SOPC and diagnostic imaging services, so as to help address the access and waiting time issues of these high demand services. This includes renovating existing GOPC to create more space for capacity increase, while on the other hand active planning of new GOPC/community health centres in districts, including North District, Shek Kip Mei and Mong Kok, is in progress to help meet rising demand and facilitate the delivery of patient-centred multi-disciplinary care in the community setting.

Roll out Service Enhancements for Time-critical Care

Service coverage for life-threatening conditions will continue to be enhanced, where early detection, assessment and management of patients are essential to improve outcomes. In addition to emergency services such as trauma, transplant and emergency surgery, this also covers interventions for specific conditions such as for heart disease, stroke, cancer and renal failure. In addition, we will explore ways to enhance the coordination with and support from other services, such as AED, ICU / High Dependency Unit and radiology and rehabilitation services, so as to build up capacity and capability within the system to manage emergency patients at different phases of their care.

With regard to trauma, transplant and emergency surgery, we will continue to enhance the provision of services to ensure adequate capacity and coverage to deal with emergency and time-critical cases when they arise. This includes looking at the capacity and session management of operating theatres to optimise scheduling and the use of facilities for meeting growing demand.

Turning to specific conditions, with regard to coronary heart disease, service development will continue in line with the SSF for Coronary Heart Disease. The central theme of the framework is on enhancing services for the reduction, acute management and comprehensive rehabilitation of patients with the most severe form of heart attack, namely ST-elevation myocardial infarction (STEMI). A key focus is on improving access to PPCI for the emergency treatment of STEMI patients. Following the implementation of extended-hour PPCI service in at least one hospital in all seven Clusters over the past few years, we are seeking to develop 24-hour PPCI service at designated hospitals by phases. The long-term objective is for the 24-hour service to eventually cover the whole of Hong Kong through a networking system in accordance with the SSF for Coronary Heart Disease.

With regard to stroke, after incorporating 24-hour thrombolytic service at designated hospitals in all seven Clusters for the benefit of acute ischaemic stroke patients over the past few years, further enhancements will be carried out with a target of improving the service's coverage as well as door-to-needle time.

For cancer care, the focus will be on enhancing access to investigations as well as the capacity of cancer surgery, radiotherapy and chemotherapy services, so as to support timely diagnosis, treatment and ongoing management by tackling bottlenecks in the care pathway. For example, under the expansion project of United Christian Hospital, a seventh oncology centre will be developed in HA to enhance the provision of cancer services, particularly in the Kowloon East region. Efforts will also be made to strengthen the overall coordination of cancer services, such as by exploring the setting up of Cluster-level committees to oversee cancer service developments, and reviewing the role and scope of cancer case managers to ensure their effectiveness in coordinating complex care and supporting patients throughout the course of their illness. In addition, satellite day chemotherapy services will be enhanced, so as to improve service access and convenience for patients.

To enhance the care for patients with end stage renal failure, efforts will be made to further strengthen haemodialysis capacity and access, including different options for patients to receive haemodialysis in the community, and enhancing dialysis coverage for renal patients in extended care settings.

Underpinning these strategies, we will enhance clinical support services, such as radiology, pathology, pharmacy, blood transfusion services, etc. as well as allied health services, in order to ensure their capacity development aligns and keeps pace with the service enhancement of priority services.

Share out the Demand

Reinforce Public-Private Partnerships (PPP)

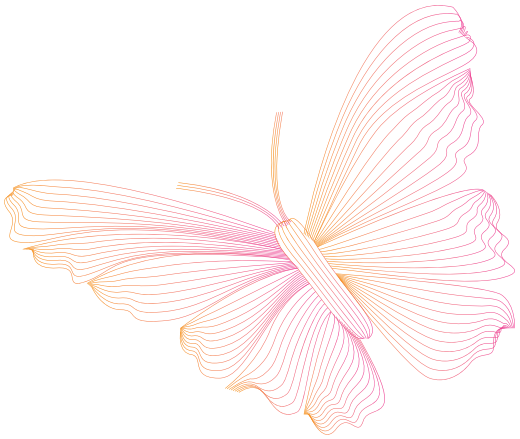
In line with the recommendations of the HA Review as well as the Government's policy direction, we will develop and enhance different initiatives of PPP with the private sector, NGOs and social enterprises in order to share out demand to help cope with rising capacity pressures, particularly for high volume, low complexity elective services. Developing collaborations with community partners to help supplement service capacity, in addition to the existing network of care by HA, will support patient-centred care by enhancing patients' access and choice to clinical services.

Whilst a number of initiatives are already underway and could be further leveraged to bring together the resources and expertise from both the public and private sectors, such as PPP in cataract surgery, haemodialysis, radiological imaging and primary care, we will also explore other services that could adopt shared care model for enhancing service capacity and quality, particularly in light of an ageing population and rise in chronic diseases. For example, private practitioners could be enlisted to provide part of the medical care for stable chronic patients of SOPC, including patients with common mental disorders. Furthermore, as outlined in the HA Review Action Plan, we will partner with NGOs to provide infirmary services to patients requiring long-term institutional health and social care through the pilot project of Infirmary Service PPP to be launched in 2017.

In the coming years, we will actively explore more clinical PPP opportunities and formulate long-term programmes taking into consideration the Government's pledge to allocate to HA a sum of $10 billion as endowment to generate investment return for funding PPP initiatives.

Key Actions on Capacity Enhancement

- Continue to open more beds according to projected demand
- Enhance the quota of SOPC, GOPC and diagnostic imaging services
- Commission by phases the services of hospital development projects
- Strengthen the provision of emergency and time critical services, such as for trauma, transplant and emergency surgery
- Develop a 24-hour PPCI service for STEMI patients
- Improve the coverage and door-to-needle time of stroke thrombolytic service
- Enhance access to investigation and treatment for cancer patients
- Strengthen haemodialysis capacity and access for renal patients
- Develop and enhance PPP with private sector, NGOs and social enterprises



Summary

Building on existing progress and dovetailing with the recommendations of the HA Review, a set of complementary strategies has been formulated to guide and shape the delivery of services in the coming years, in order to:

- Meet rising service demand as a result of population growth and ageing and increase in the prevalence of chronic diseases;
- Tackle issues related to service access and waiting times and responsiveness to patients' needs; and
- Provide a coordinated approach for keeping up with advances in technology and international standards.

The major strategic directions are to:

- Enhance access and efficiency;
- Improve safety and effectiveness;
- Modernise HA;
- Promote partnerships with patients;
- Raise the capacity of priority services of HA; and
- Share out the demand.

The inter-related strategies provide a synergistic approach to improving service quality and optimising the management of demand. In particular, the service transformation strategies for enhancing access and efficiency will provide a step change in driving towards more sustainable models of care. The aim is to accomplish the provision of patient-centred care and realise our vision of "Healthy People".

Develop a Committed and Competent Workforce

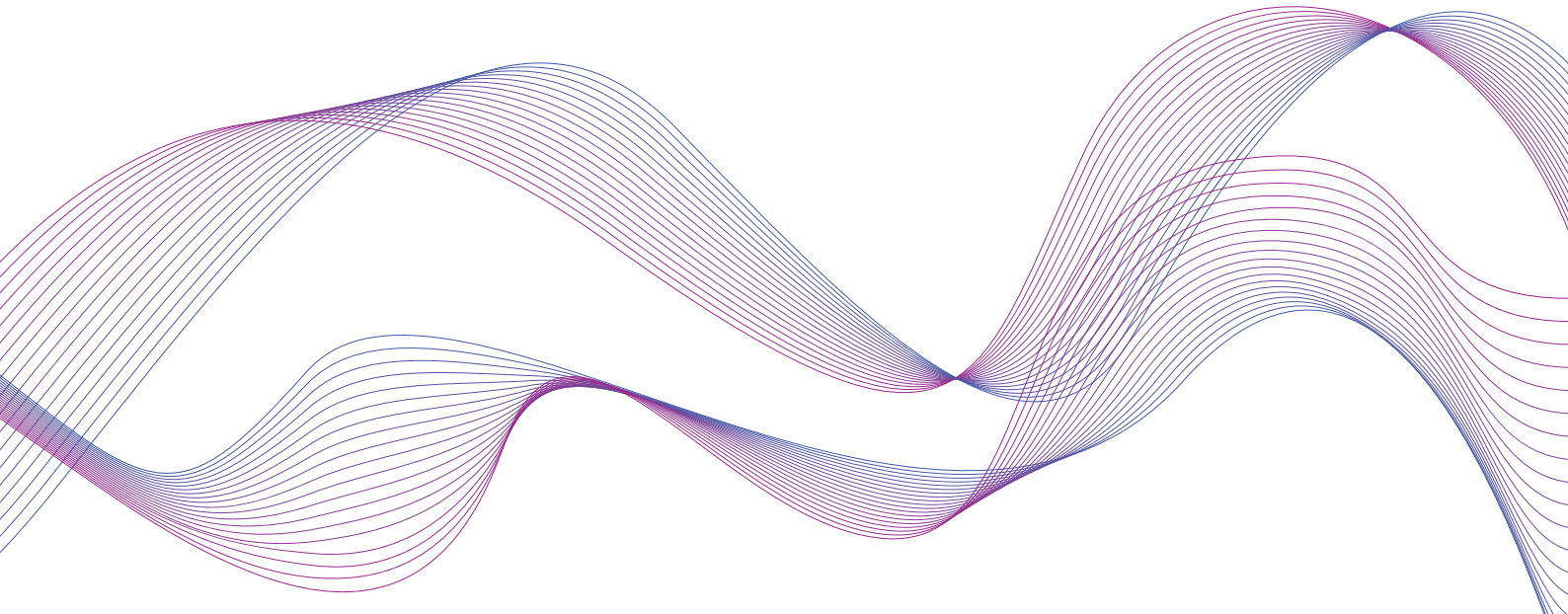
Our Strategic Goals

To develop a competent workforce with a shared sense of common purpose and values as members of "One HA" family through pursuing the strategic goals of (i) attracting and retaining staff, and (ii) enhancing staff training and development. To attract and retain staff, a multi-faceted approach will be adopted along the three strategic directions of improving staff management; promoting staff engagement and well-being; and fostering staff health and a safe working environment. On the other hand, staff training and development will be enhanced through the strategic directions of strengthening training governance and policy, and improving training quality.

Key Challenges the Strategies will Address

Through the strategies we will address the following key challenges:

- Manpower shortage and constraint in managing escalating service demand
- Inconsistency in staff management practice
- The need to strengthen staff training and development, as highlighted by the HA Review



Our workforce is the foundation of healthcare delivery by HA, and every day our staff members work tirelessly to provide high quality patient care across the many different communities in Hong Kong. It is our continuing ambition to build a committed and competent workforce, in which staff feel respected, valued, inspired and empowered to deliver high quality patient care. In particular, it is important to foster a growing sense of common purpose among staff, so that we are all striving towards accomplishing the same goals as "One HA" family, guided by our values of people-centred care, professional service, committed staff, and teamwork.

In the coming years the major goals will be to attract and retain staff, and enhance training and development, so as to tap into the talents and full potential of our staff. This is to ensure we have a robust workforce with the right mix of skills and competencies for improving the standard of care and patient outcomes.

Strategic Goal: Attract and Retain Staff

A multifaceted approach will be adopted in order to attract and retain staff, as part of continuing efforts to alleviate the manpower shortage and constraint. These are based on the three strategic directions of (i) improving staff management, (ii) promoting staff engagement and well-being, and (iii) fostering staff health and a safe working environment, as follows:

- Improve staff management through strengthening the governance and transparency of HR practices, offering more flexible work arrangements, and developing more structured succession planning.

- Promote staff engagement and well-being by developing more ways to better communicate and engage with our staff, as well as through building and sharing our corporate culture and values.

- Foster staff health and a safe working environment through reinforcing ways to support the health of staff and strengthening OSH.

Improve Staff Management

Substantial efforts in the coming years will go into strengthening our staff management practices. The main focus will be on improving the coordination and consistency of HR practices across HA, providing more flexible employment options to further attract and retain staff, as well as developing an internal pipeline to identify and nurture talents with potential for future senior roles.

Strengthen Human Resources Governance and Transparency

In line with the recommendations of the HA Review, emphasis will be placed on strengthening the governance and transparency of HR practices. This includes the Head Office of HA adopting a more central coordination role to ensure greater consistency, fairness and parity in HR management and practices in and among the Clusters. For example, a central panel led by HAHO for the creation and deletion of directorate positions as well as for Nursing Consultant positions has been established, so as to better balance the considerations of local needs with that of HA overall. In the coming years, we will consider further extension of this mechanism to other grades and ranks as appropriate.

In conjunction, we will strengthen structured and regular communication between Clusters and Head Office to ensure common understanding on corporate HR policies and to minimise inconsistencies in implementation. This will be facilitated by dissemination and sharing of information and standard practices, as well as through promoting an open reporting culture. In this connection, a system of HR audit has been established to look into the policies, guidelines, procedures and practices in selected disciplines of the HR function to help identify gaps and areas for improvement.

Meanwhile, we will seek to improve the transparency in the staff promotion and transfer process. In this regard, Head Office representation in Cluster's selection boards will be strengthened. Looking forward, we will ensure clear criteria and guidelines are available, together with the delineation of the roles and responsibilities of the Head Office representatives in the selection boards, and refine these as necessary.

Facilitate Flexible Working

In order to tap into the potential workforce in the latent market and also offer a viable retention option for some existing staff members who might need to cut down on work commitment due to family commitment or other reasons, we will explore different options of flexible work arrangements that could cater to different staff groups and care settings while at the same time meeting the operational needs without compromising service quality and safety. Examples could include part-time employment, job share, etc. In parallel, the development of flexible employment opportunities will be linked with a mechanism to facilitate job matching, so that staff with flexible work preferences can be assigned to suitable posts.

Develop Structured Succession Planning

Succession planning of senior management and clinical positions will continue to be taken seriously. In particular, a structured mechanism to identify and groom candidates for senior executive and clinical leadership positions will be enhanced so as to ensure a sufficient stream of high calibre staff is available and ready to assume key roles within the organisation. This will be facilitated through the enhancement of staff development programmes for senior managerial and clinical staff, whereby senior staff will be given wider exposure through different postings.

Promote Staff Engagement and Well-being

Promoting staff engagement and well-being is an important focus for HA in retaining staff and reinforcing their commitment, morale and job satisfaction. This is especially important given that some of the strategies outlined in this Plan will require changes to established practices in the way some services are delivered. At the same time our workforce consists of a diverse range of perspectives, talents and ideas, which we consider a source of great strength to tap into. The relevant strategies in the coming years are therefore to build and share corporate culture and values, and develop ways to better engage and communicate with staff.

Build and Share Corporate Culture and Values

Various initiatives will be undertaken to improve the sense of belonging and sense of pride of HA staff, with emphasis placed on promoting the VMV of HA, particularly in working towards achieving the common goal of providing patient-centred care. For instance, we will explore practical and meaningful ways to promote the concept of "Care for the Carers" in support of our "Happy Staff" ethos, such as through enhancing the welfare and well-being of staff. An example is improving the quality / functionality of staff uniforms. At the same time, initiatives to foster better staff recognition will be developed, such as implementing an award scheme to recognise small but good deeds. In addition, to promote corporate identity and team spirit, we will continue to organise more corporate-wide events, including the New Year Run, Dragon Boat Race, etc.

Dovetailing with the HA Review Action Plan, we will also promote the concept of "One HA" to enhance the sense among staff that they are part of one united HA family, rather than just a member of an individual Cluster or hospital. This will include structured job rotations for senior management and clinical staff, as well as intra-specialty rotations for clinicians to broaden exposure, facilitate mutual understanding among staff in different Clusters, and to better support HA's service.

Develop Ways to Better Engage and Communicate with Staff

Effective staff communication is essential for an organisation's success, especially for large organisations like HA. Various communication channels at corporate and Cluster level have already been put in place to disseminate corporate directions, strategies / policies and key challenges of the organisation. In the coming years, advanced technology will be adopted to further enhance communication and enable a mobile workplace. HR mobile solutions will be introduced to modernise staff communications, the development of which will include modules for staff health records, leave application, staff welfare, staff training, retirement benefits and job opportunities.

In addition, face-to-face communication with frontline staff will be improved on key HA or HR initiatives so as to strengthen the transparency and consistency of information dissemination. To facilitate this, we have developed a Staff Communication Guidebook to outline our communications framework, including practical tools and checklists in carrying out comprehensive communication planning and strengthening mechanisms to collect staff feedback. We will regularly review and refine our staff communication approaches, so as to ensure they remain a two-way process, which reflects the value placed on the contribution of staff views and ideas.

Furthermore, to better understand staff concerns and to receive feedback on areas for improvement in terms of developing a competent and committed workforce, the HA-wide staff survey will be rolled-out once every four years. In between the HA-wide staff survey, we will also conduct focused surveys in order to monitor the progress of specific HR strategies and initiatives, and to inform on areas for improvement or refinement.

Foster Staff Health and a Safe Working Environment

We are committed to safeguarding the safety and health of our staff. This is achieved through fostering a safe and secure working environment by strengthening OSH, and reinforcing ways to support staff health.

Reinforce Ways to Support the Health of Staff

To support staff health, attention will be devoted to enhancing staff access to the services of HA staff clinics, including enhancing the telephone appointment system as one of the ways to optimise quota utilisation. At the same time, we will further develop and refine the electronic and mobile Staff Health Record to better empower staff in managing their own health. For staff on long-term sick leave, we will explore different means to support their return to work, such as by reviewing the governance of sick leave management and arrangement of Medical Assessment Board, and ways to accommodate staff return. We will also review the pre-employment medical check mechanism for newly recruited staff.

Strengthen Occupational Safety and Health

To strengthen OSH, we will follow up the review of the OSH management structure to address the areas for improvement and to beef up relevant expertise. At the same time, we will embark on a number of specific initiatives to improve workplace health and safety, including:

- Enhancement of chemical safety through the development of monitoring protocols for commonly used chemicals, chemical hazard assessment and management tools;
- Improvement of occupational health through continuous nitrous oxide monitoring at labour wards and other clinical areas; conducting heat stress assessment in kitchens and laundries; reviewing Safety Manual on Medical Laser, etc.; and
- Further emphasis on developing risk assessment e-tools for Manual Handling Operations for supporting services, clinical services and clerical works.

Moreover, to protect our staff from workplace violence, greater efforts will be devoted to developing and providing various types of training courses for frontline and supervisory staff, such as on ways of preventing workplace violence and how to forestall and deal with the issue appropriately. This includes continuing to arrange workplace violence drills in high risk areas to improve staff preparedness. Moreover, taking forward the development of anti-workplace violence checklists for outreach services, GOPC, SOPC and wards, we will look into refining and extending the practice to other settings where appropriate.

Key Actions on Attracting and Retaining Staff

- Strengthen the central coordination role of HAHO in HR management and practices
- Enhance communication between HAHO and Cluster HR
- Develop more flexible employment options
- Enhance the current mechanism for robust succession planning
- Promote the concept of "One HA" through different means
- Enhance staff communication and engagement
- Develop ways to support staff health and well-being
- Reinforce OSH

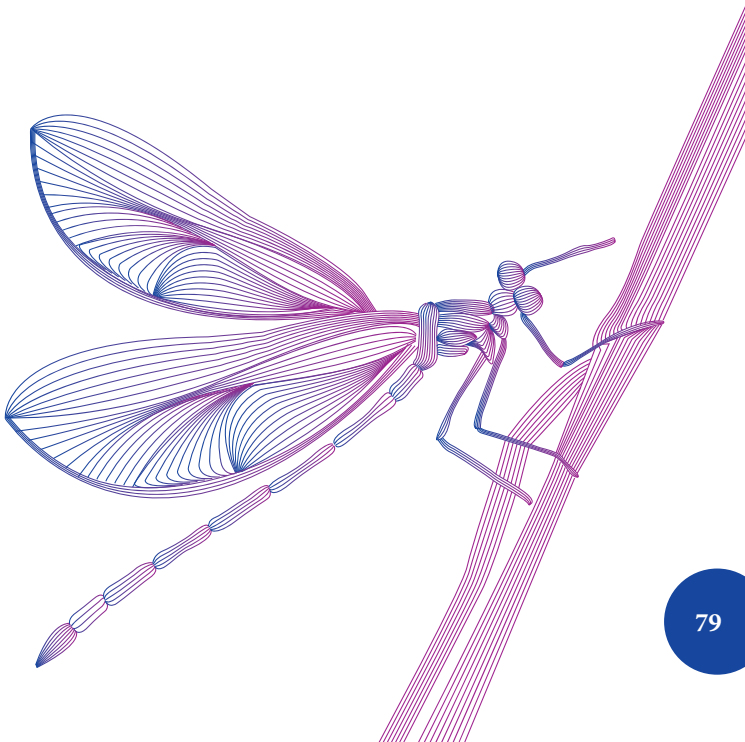
Strategic Goal: Enhance Staff Training and Development

The training of healthcare professionals is of paramount importance to sustaining the Hong Kong healthcare system and enabling the continued improvement of healthcare services. In this regard, HA takes a leading role in the training and development of the local healthcare workforce.

Furthermore, nurturing a positive and supportive workplace culture that allows the development and maintenance of a workforce with the right skills, in the right place, is an essential part of delivering high quality healthcare, driving innovation and improving service performance. To this end, HA encourages and supports staff in achieving their full potential by providing relevant learning and development opportunities aimed at building their talents, capabilities and encouraging the behaviours needed to deliver our strategies.

Besides training and development of clinical professionals, such as doctors, nurses, allied health and pharmacists, this also includes the training and development of non-clinical professionals, such as in the fields of IT, HR, finance, capital planning and business support, who play an essential role in supporting frontline staff and services.

The strategic directions in the coming years are to (i) strengthen training governance and policy, and (ii) to improve training quality in order to nurture a competent workforce for improving the standard of care and patient outcomes, while at the same time leading to greater job and career satisfaction for staff.



Strengthen Training Governance and Policy

To ensure the effective function of HA in providing its leading role in the training and development of local healthcare professionals in Hong Kong, the overall governance and policy of staff training will be enhanced through (i) coordinating the governance and organisation of staff training, and (ii) establishing a mechanism to align training with career development.

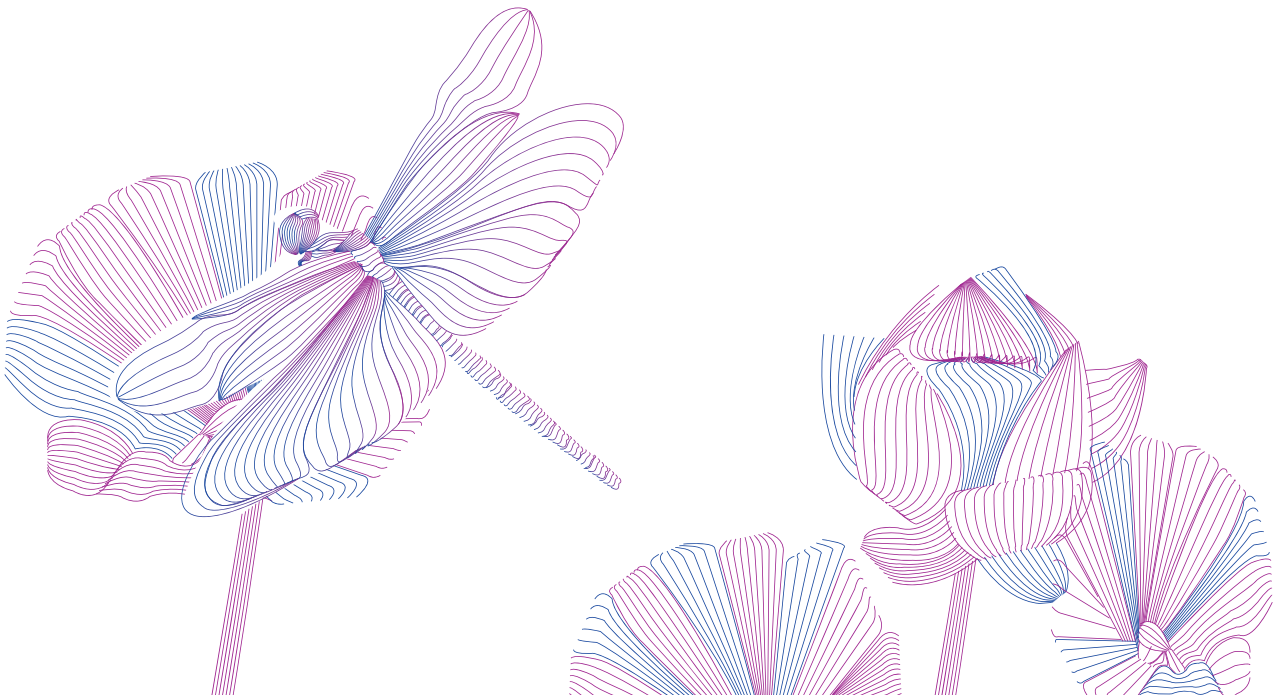
Coordinate the Governance and Organisation of Staff Training

As outlined in the HA Review Action Plan, training governance will be enhanced through the establishment of a high level central committee under the Human Resources Committee of the HA Board for the planning and coordination of different levels of training, covering clinical and non-clinical training as well as simulation training. The committee has been set up in November 2015 and is overseeing the development of an overall HA training policy and the effective utilisation of training resources. The committee also helps provide advice on enhancing the alignment of practices across HA in terms of selection and funding arrangements in training opportunities. Going forward, the key actions will be to implement the training committee's policies and monitor the utilisation of training resources so as to guide further refinement and prioritisation of training in HA.

At the same time, through a phased approach we are continuing to develop our training information management system for accurate and appropriate records management, so as to meet various professional / service training requirements, and to better facilitate the identification and forward planning of new training programmes.

Establish a Mechanism to Align Training with Career Development

In parallel, we are setting up a structured mechanism to improve the link between skill enhancement, career path and succession planning. This will ensure that the training provided is appropriate to the professional needs of staff and matched to a career development structure, as well as supports the current and future operational requirements of HA. This includes the development of training and orientation programmes for clinical staff taking up management roles, such as COS or Ward Managers, etc.



Improve Training Quality

In addition to strengthening training governance and organisation, emphasis will be placed on improving the quality of training through quality assurance measures and the development of training themes.

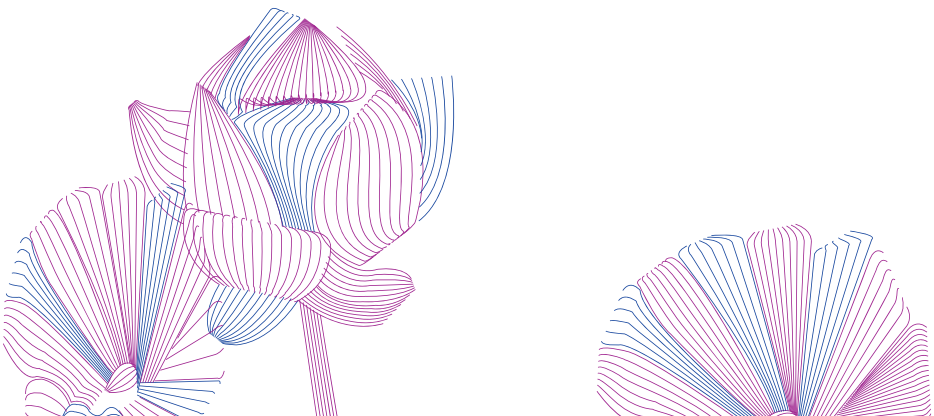
Develop a Quality Assurance Framework and Raise Staff Training Opportunities

The development of a quality assurance framework for training and trainer competency is crucial given the growing number of different training opportunities available to staff. For example, to enhance the capacity and capability of both clinical and non-clinical training, more structured collaborations with external parties, such as Hong Kong Academy of Medicine and local universities, will continue to be explored, requiring quality assurance. Besides, in the coming years training opportunities for clinical staff will be beefed up through strengthening training support, such as scholarships, commissioned training programmes, sponsored simulation training courses, doctors' overseas training, etc.

Moreover, the current staff rotation programme will be strengthened and extended to different staff grades in addition to the existing programmes for Cluster Chief Executives, Hospital Chief Executives, Chief Managers, Cluster General Managers and Senior Managers in HAHO for the Finance, HR and Administration Grades. This will include career development programmes with rotation opportunities for senior management and clinical staff so as to widen their exposure to working in different dynamic environments and promote the grooming of a talent pool across HA.

Also, dovetailing with the strategy to implement technology in a timely and coordinated manner for improving service quality, a rotation mechanism will be established to enhance the training opportunities for relevant staff in different hospitals in HA on the use of new technology / equipment, in order to develop the expertise and capabilities of our workforce. As mentioned in the HA Review Action Plan, the mechanism will be developed in consultation with COCs. Similarly, training activities for highly specialised services in HA will also be centrally coordinated.

Alongside the above, we will explore different ways of supporting training relief so that more staff can be released from their duties to attend training, particularly for frontline clinical staff.

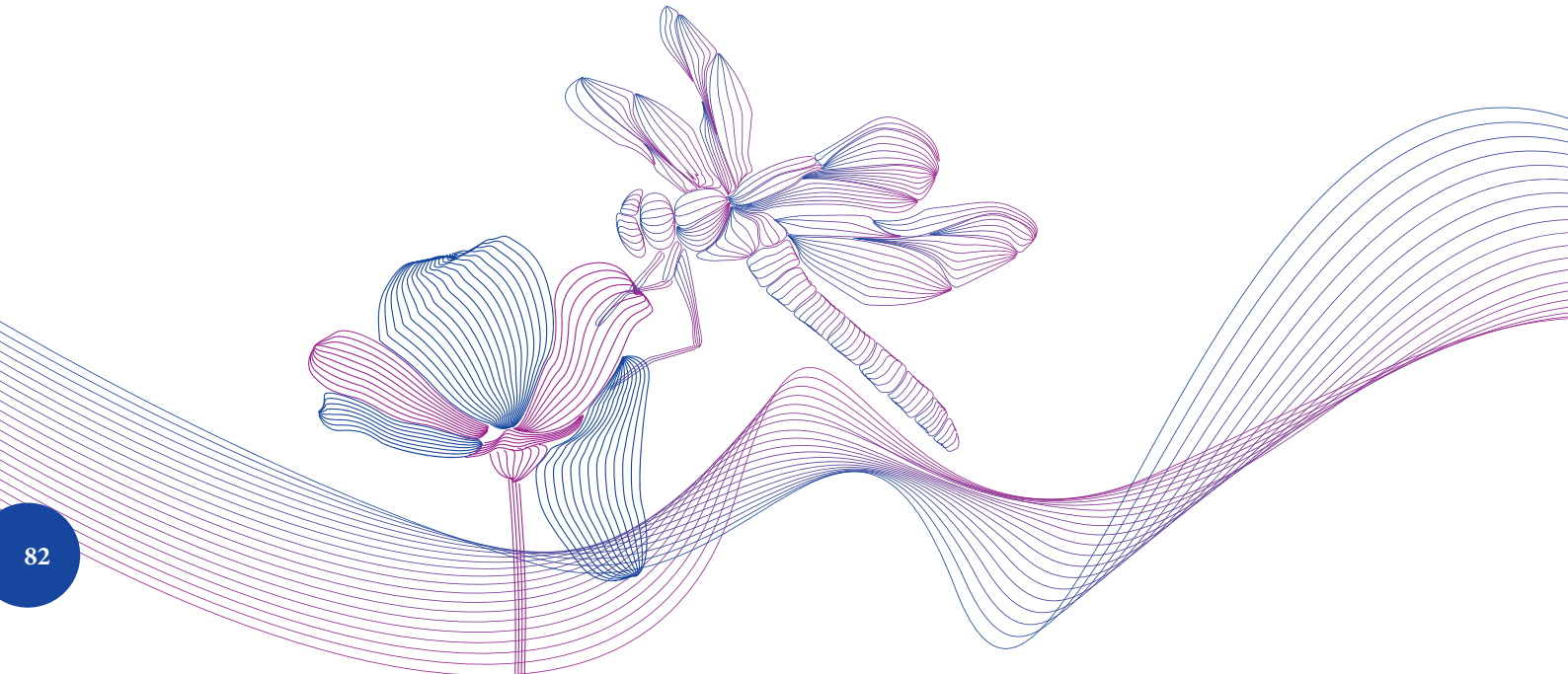


Develop Training Themes to Reinforce the Corporate Purpose and Values

In order to support the staff engagement strategies of building and sharing corporate culture and values, we will embark on developing training themes to inculcate among staff the HA VMV, to promote a shared sense of purpose and goals. The aim is to help re-orientate the mind-set of staff from being hospital / Cluster centric to one that embraces a shared corporate identity emphasising the "One HA" family culture, with a focus on working towards the overall objectives of HA. For example, training themes such as "working towards total patient care" are candidate areas for development.

Key Actions on Training and Development

- Implement training policies developed by the Central Training and Development Committee
- Monitor the use of training resources for effectiveness
- Develop a training information management system
- Align training with professional development and the operational needs of HA
- Quality assure staff training and development programmes and courses
- Continue to strengthen staff rotation and training opportunities
- Develop training programmes to support HA's VMV and promote a shared sense of common purpose



Summary

The people management strategies outlined in this chapter aim to:

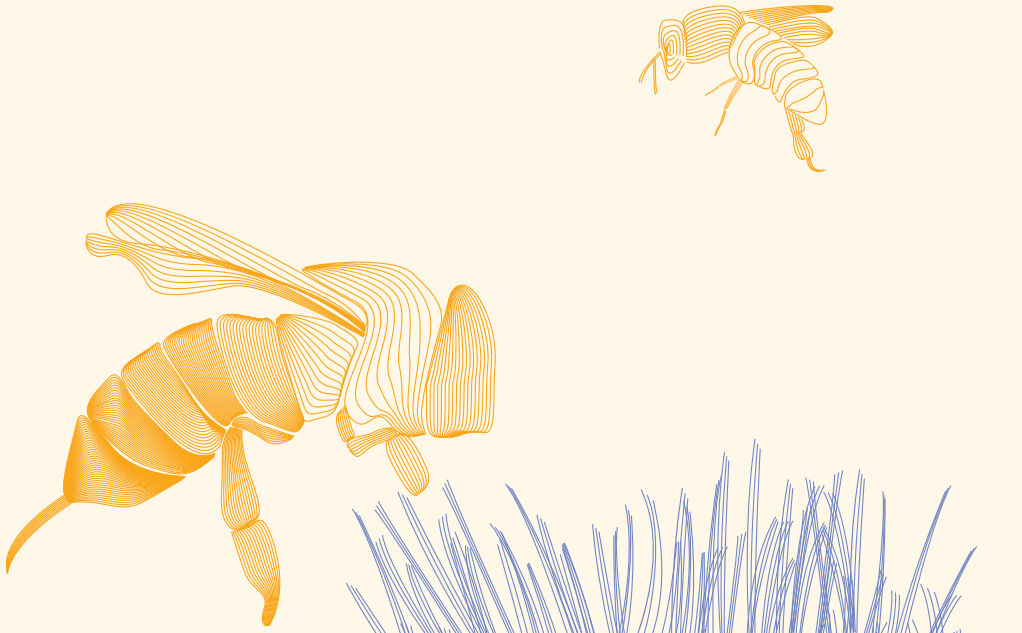
- Strengthen the management of our workforce to help flexibly meet the needs of rising service demand against the backdrop of manpower constraints;
- Improve the governance and transparency of HR practices across the organisation;
- Better engage and motivate our staff and support their safety and well-being;
- Build and share our VMV and promote a shared sense of purpose and goals; and
- Enhance staff training and development to support a workforce with the right skills, in the right place, so as to improve the standard of care and patient outcomes.

The major strategic directions for achieving these are to:

- Improve staff management;
- Promote staff engagement and well-being;
- Foster staff health and a safe working environment;
- Strengthen training governance and policy; and
- Improve training quality.

Collectively the strategies will contribute to our goals of attracting and retaining staff, as well as enhancing staff training and development. The aim is to continue developing a committed and competent workforce belonging to "One HA" family in which staff feel supported and have a shared sense of common purpose and values, ultimately contributing to our vision of "Happy Staff".

Enhance Financial Sustainability



Our Strategic Goal

To drive accountable and efficient use of financial resources for maintaining and enhancing our overall financial sustainability through the strategic directions of (i) improving financial planning and (ii) enhancing transparency and equity in resource allocation.

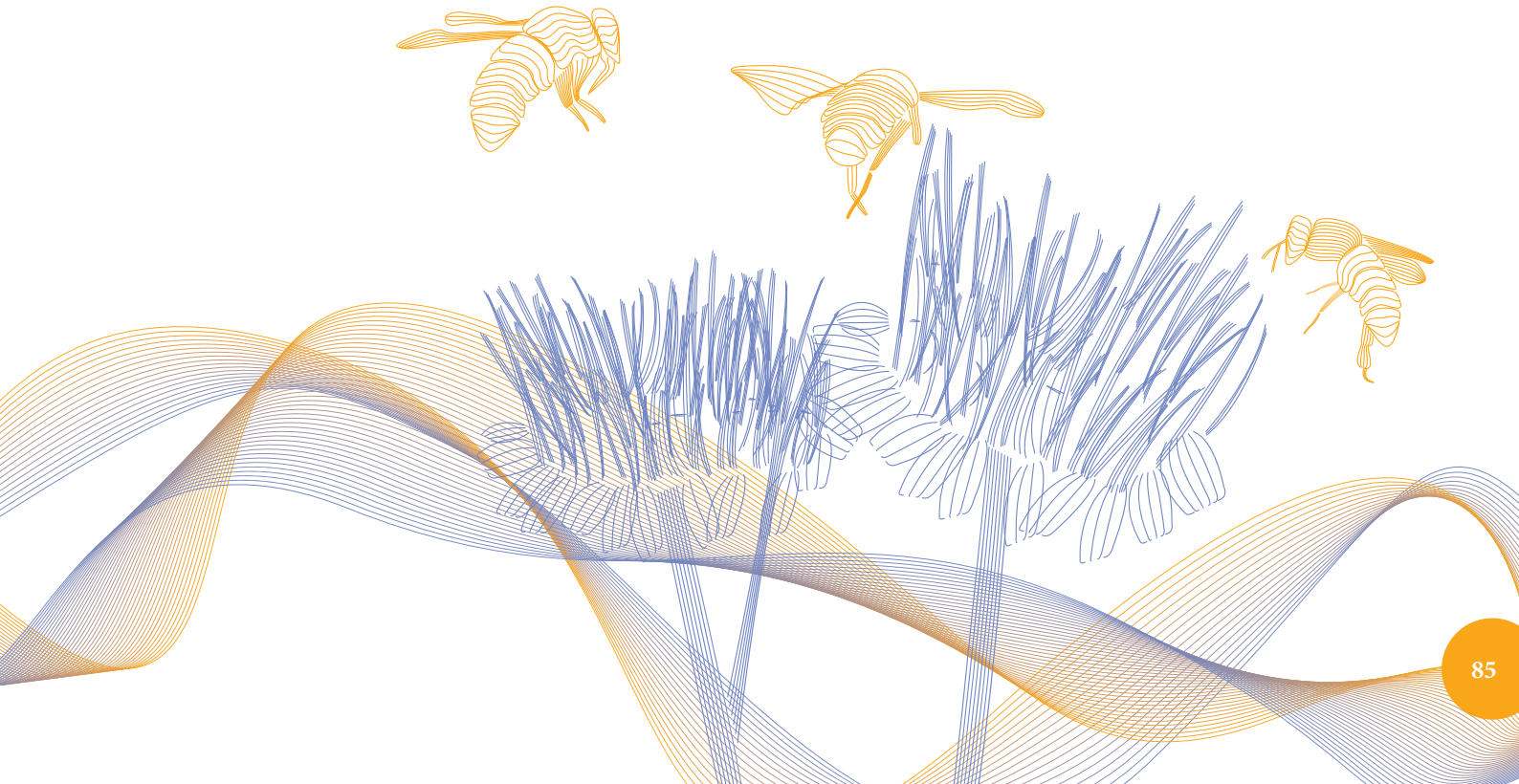
Key Challenges the Strategies will Address

Through the strategies we will address the following key challenges:

- Financial sustainability: The need for predictable and steady funding growth from the Government to facilitate HA's short- and long-term planning for the anticipated rising healthcare demand from a growing and ageing population.

- Transparency and equity: The need for more participative and transparent planning processes, and a sound and robust evaluation framework for resource allocation to address concerns over fairness and consistency in resource distribution to Clusters from the population perspective, as is highlighted in the HA Review.

- Service efficiency: The need for identifying efficiency and inefficiency in the healthcare system and different delivery models in order to facilitate our service strategies for patient-centred care.



Strategic Goal: Drive Accountable and Efficient Use of Resources

Being the sole provider of public hospital services in Hong Kong, HA acts as a safety net in the provision of healthcare for the population. It has to advise the Government of the needs of the public for hospital services and of the resources required to meet those needs. Moreover, HA has a statutory obligation to use its resources accountably and efficiently in order to provide hospital services of the highest possible standard within the resources obtainable.

Financial planning and resource management are getting increasingly important in view of the rising healthcare expenditure resulting from the growing and ageing population, as well as medical inflation from rapid advances in medical technologies and drugs. Similar to other public health systems around the world, HA must strive to manage its finite resources more efficiently to cope with the foreseeable rising service demand in the future. Against this background, besides conveying HA's financial position and health care funding needs to the Government, it is equally important for HA to continuously explore more efficient ways to run its services.

Moreover, in the years ahead HA will pursue a host of inter-related strategies to improve service quality and optimise demand management. This includes reengineering the way in which services are delivered to make them more streamlined and responsive to the healthcare needs of patients so that they are more patient-centred and delivered at the right place and time. This service transformation requires a system-wide approach, including the planning and allocation of financial resources to help facilitate an environment that supports the changes.

As part of an overall strategy to strengthen resource management for financial sustainability, as well as responding to the recommendations of the HA Review, the strategic directions in the coming years are to (i) improve financial planning, and (ii) enhance the transparency and equity in resource allocation, so as to work towards the strategic goal of driving accountable and efficient use of financial resources.

Improve Financial Planning

Considering the magnitude of public healthcare spending, it is crucial for HA to perform robust financial planning through regular assessments and judgments on its financial position, population demand for HA services and the corresponding resource need, as well as possible financial outlooks under different scenarios including options of mobilising internal resources to meet operational needs, and to convey them to the Government for the annual review of Government subvention exercise.

Moreover, as part of an integrated approach to the planning and provision of patient care, we will explore options to help support changes in the service delivery model. For example, taking reference to the cost of service and in consideration of the potential effect of user fees on the healthcare utilisation of patients, we will regularly examine the fee structure of HA services in light of the service transformation strategies outlined in this Plan.

Refine HA's Financial Projection Model

We will refine our rolling medium-term (three to five year) financial projection model to improve financial planning, and facilitate discussions with the Food and Health Bureau on the level of Government subvention in the coming years and guide the Annual Planning exercise. Specifically, cash flow projection will better reflect HA's year-to-year financial outlooks whereas the projection model will be refined to incorporate both demand-driven and supply-driven analyses, as well as possible different scenarios, such as:

(a) changes in baseline spending for maintaining the existing level of workforce and services;

(b) unavoidable increases in expenditure such as those relating to drugs, medical devices, infrastructure maintenance, infection control, inflation; and

(c) service demand growth as projected by population-based model as well as by supply-driven projections, taking into account of system and manpower constraints and committed development plans such as major hospital capital projects.

At the same time, refined projection of our financial position in the coming three to five years will also be used to assess the need to mobilise internal resources for meeting operational needs. In this regard, the use of one-off internal resources can serve as an interim measure to support our funding needs in the short-term as part of the overall approach in the planning for budget control measures.

Assess the Fee Structure in Relation to Service Models

The setting of fees and charges in HA is subject to the direction of the Government. In accordance with our statutory functions, we will continue to advise the Food and Health Bureau regularly of the cost of service provision and on the need for fees and charges revision, having regard to the principle that no person should be prevented, through lack of means, from obtaining adequate medical treatment.

Correspondingly, along with efforts to reengineer services in order to facilitate the provision of the appropriate level of care in the right setting according to patient needs, we will examine the fee structure along with the service model changes. In addition, we will explore application of the fee structure as a means to encourage appropriate use of public healthcare services, for example, more judicious use of AED services, and promotion of day and community services to help reduce the reliance on inpatient care.

Key Actions on Financial Planning

- Perform medium-term financial projections with analysis of different scenarios
- Project financial positions to assess the need for mobilising internal resources
- Examine the fee structure of HA services and assess its alignment with the service models

Enhance Transparency and Equity in Resource Allocation

HA being a public organisation is accountable for using its resources efficiently to provide hospital services of the highest possible standard within the resources obtainable. In this regard, equity in public healthcare financing and delivery are subjects of public concern. For example, concerns were raised in the HA Review regarding perceived unfairness in the existing resource allocation approach, which did not emphasise resource allocation that was commensurate with the corresponding population in Clusters. Thus, along the lines of the recommendations from the HA Review, we are revisiting our resource allocation model from the population perspective and will use it to analyse resource needs, as well as to compare the resource utilisation of individual Clusters. This will serve to provide an analytical tool of resource distribution between Clusters so as to make available relevant information to inform our service planning and budget allocation processes, and for public scrutiny as may be requested.

Refine HA's Internal Resource Allocation (IRA) Approach

In accordance with the HA Review Action Plan, a refined population-based IRA model will be developed to compare the resource allocation among Clusters, with adjustment of relevant factors such as designated services provided at specific Clusters, as well as the demand generated from cross-cluster movement of patients. The purpose of this is to facilitate service planning to address the healthcare needs of the present and future population under the Cluster framework for delivering public hospital services.

Using the refined IRA model, we will compare the resource utilisation of Clusters and perform time-trend analysis of Clusters' resource need and utilisation. In relation, measures will be taken incrementally through various planning activities, such as capital works planning, equipment planning, workforce planning, and new service initiatives in the annual planning exercise, to help Clusters found to be relatively disadvantaged in resources to catch up in those specific areas. Subject to its development, the refined IRA analysis will be incorporated into the annual planning exercise starting from the 2018-19 planning cycle, and will be one of the key considerations for the vetting of resource bids. This will also provide a further level of information to enhance the transparency of the resource bidding and allocation process.

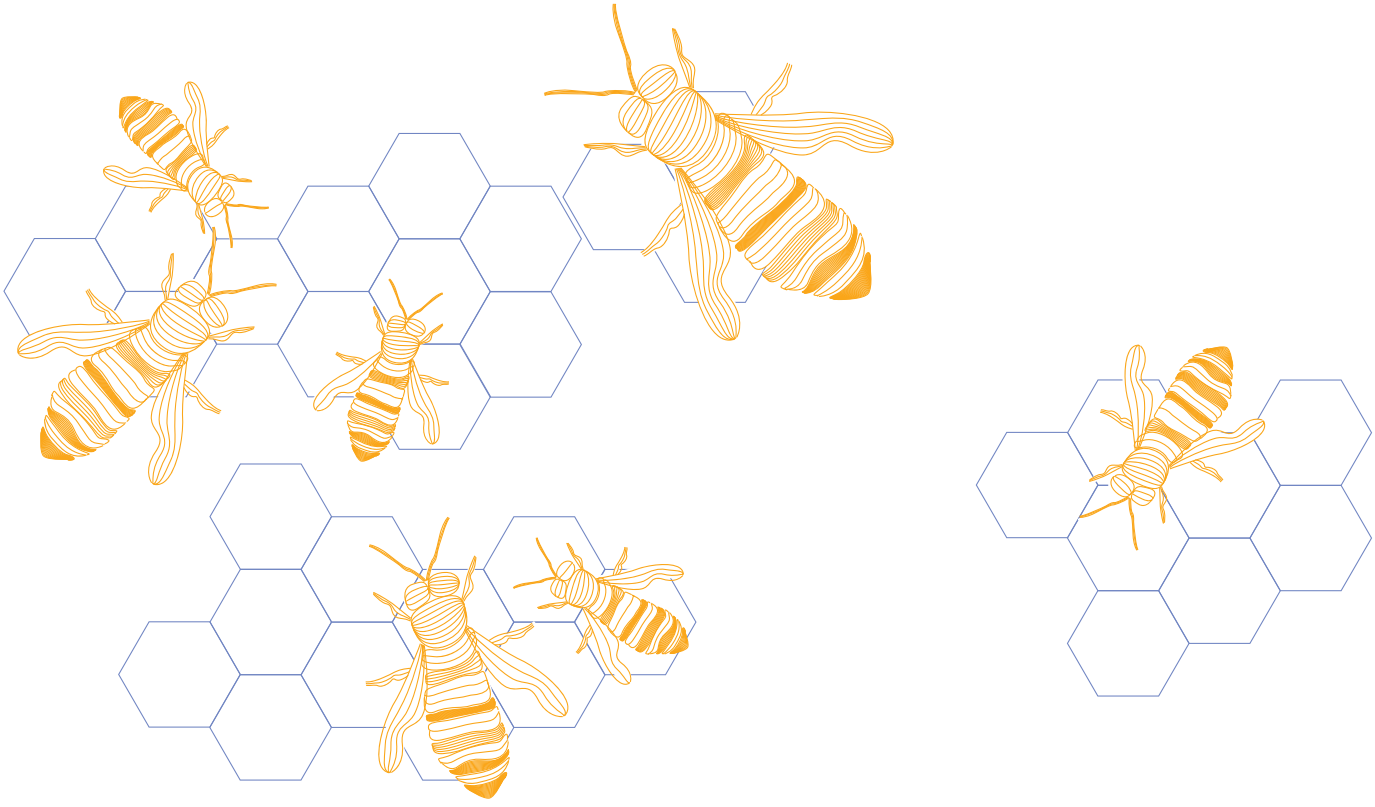
Correspondingly, we will use time-trend analysis of IRA to shed light on whether resource management in HA is improving the parity between Clusters. Ultimately, this will help to provide the direction for making continuous and sustainable improvements to resource management and service planning under the refined population-based approach.

Enhance Development and Use of Costing Information

In recent years we have seen a rise in demand for more detailed costing information (such as down to hospital level, by age and target disease group, etc.) from external parties, as well as the need for internal benchmarking. As a first step, we will consolidate the existing oversight mechanism for costing information into a common framework. To ensure continued validity of the costing methodology and generation of meaningful costing information to aid informed decision making, clinical leaders and hospital management will be engaged to ensure that costing development is kept abreast of care practice changes and external needs. This will lay the foundation for linking resource and cost information to activity data and performance measures so as to identify efficiency, inefficiency and opportunities for service enhancement / transformation.

Key Actions on Resource Allocation

- Develop a refined population-based IRA model
- Conduct time-trend analysis of IRA among the Clusters
- Enhance the development and use of costing information



Summary

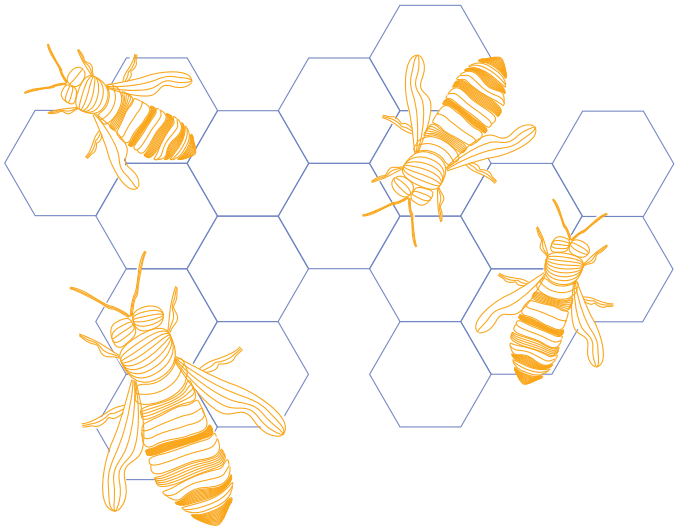
In a nutshell, the strategies outlined in this chapter aim to:

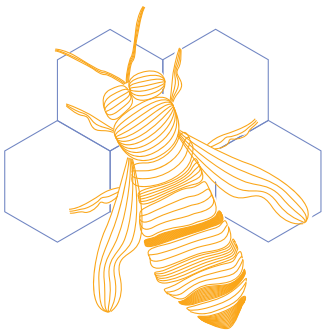
- Support our financial sustainability given the backdrop of increasing healthcare expenditure, finite resources and rising service demand;
- Enhance our resource management and address concerns on the transparency and equity in the distribution of resources to Clusters, as highlighted in the HA Review; and
- Contribute to creating an overall environment that facilitates our service transformation strategies through the provision of relevant costing information and analysis as appropriate.

The key strategies in the coming years for achieving these are to:

- Refine HA's financial projection model;
- Assess the fee structure in relation to service models;
- Refine HA's IRA approach; and
- Enhance the development and use of costing information.

Overall, the strategies will contribute to improving our financial planning approach and enhance the transparency and equity in resource allocation across HA. These measures for achieving efficient use of resources will help to position HA in the coming years and beyond for greater financial sustainability and ultimately contribute to our vision of "Trusted by the community".





Key Enablers

Successfully accomplishing the strategies outlined in this plan will require a number of key enablers of HA services to support the enhancements, drive change and facilitate transformation in models of care and practices. The key enablers include:

- *Capital works and facility improvement*
- *Business support services*
- *Information technology and health informatics*

Capital Works and Facility Improvement

The physical facilities of our hospitals and clinics have a profound influence on the capacity and capability of our services, as well as the ways in which care is delivered and people and services interact. In general, they impact on the workflow and efficiency of our services, as well as our ability to meet future healthcare demands and accommodate the introduction of new services and technologies. At the same time, a safe and comfortable physical environment plays an important role in reinforcing positive patient experience and health outcomes. It also supports staff occupational health and well-being. Accordingly, the ongoing development and improvement of our facilities and infrastructure remains a key enabler to the strategies and directions outlined in this Plan.

In support of the demand management and quality improvement initiatives in service delivery, our capital works and facility improvement projects in the coming years will be geared towards the three major objectives of (a) meeting growing demand for healthcare services; (b) modernising the physical facilities of public hospitals and clinics; and (c) making buildings safer.

HA manages a building stock comprising some 300 buildings covering a total floor space of 2,800,000 m^2, which range from new facilities specifically designed for modern healthcare to premises which can trace their roots back over 100 years. This represents one of the largest and most complex building stocks in Hong Kong.

Meet Growing Demand for Healthcare Services

The development of major capital works projects for hospital and clinics will primarily aim at facilitating capacity increase in order to meet the projected growth in service demand. In this regard, we have worked with the Government to draw up an overall development plan for our hospitals and clinics, and it was announced in the 2016 Policy Address that $200 billion would be put into implementing the plan in the next 10 years. A total of around 5,000 additional beds and over 90 new operating theatres will be provided through the hospital development projects. In addition to projects that have already commenced, including the redevelopment of Kwong Wah Hospital and Queen Mary Hospital and the expansion of United Christian Hospital, the development plan for the coming decade also includes the following projects:

- Construction of an acute general hospital in the Kai Tak Development Area
- Redevelopment of Kwai Chung Hospital, Prince of Wales Hospital, Grantham Hospital, and Our Lady of Maryknoll Hospital
- Expansion of Tuen Mun Hospital Operating Theatre Block, Haven of Hope Hospital, North District Hospital and Princess Margaret Hospital Lai King Building
- Development of new Community Health Centres in North District, Shek Kip Mei and Mong Kok

At the same time, the hospital development projects will be leveraged to incorporate physical design and purpose-built facilities that will support our service transformation strategies, such as the promotion of a day service model and an integrated model of rehabilitation care. Accordingly, a large ambulatory care centre offering a comprehensive range of day services will be incorporated in the development of acute hospitals. Moreover, in line with the SSF for Rehabilitation Services, opportunities will be taken in the development projects to co-locate a rehabilitation wing or block in acute hospitals, and to provide purpose-built facilities for day rehabilitation services and ward-based rehabilitation. In addition, barrier-free and elderly-friendly designs will be adopted in all our new or redeveloped facilities where appropriate, for the convenience and comfort of a diverse range of patients as well as to cater for the growing number of elderly patients.

Capital projects of hospital development require a long lead-time of 7 to 10 years through the various stages of planning, design, tendering, construction and commissioning. Hence long-term planning is essential in order to facilitate timely commencement, progression and completion of hospital development projects for meeting future service needs.

Meanwhile, we will continue to make use of the one-off grant of $13 billion from the Government that was approved in 2013 for carrying out minor works projects in our existing hospitals and clinics to improve their condition and environment and to enhance their service capacity where appropriate. It includes renovation to GOPCs, creating more space to increase capacity and improve service workflow.

Modernise the Physical Facilities of Public Hospitals and Clinics

Alongside efforts to meet growing demand, we are committed to the modernisation of the physical facilities and environment of our hospitals and clinics. This includes facilities which are deficient in terms of statutory compliance, or fall below established benchmarks in physical condition or energy efficiency, or those in which the existing buildings cannot physically accommodate the level of change and improvement required for delivering modern patient-centred care.

For example, we are carrying out the refurbishment of Hong Kong Buddhist Hospital in order to bring the facilities up to prevailing standards, while also improving their designs and space to cater for future service needs. Similarly, the redevelopment of Kwai Chung Hospital will provide a new hospital campus offering therapeutic environment as part of the modernisation of mental health services.

At the same time, to ensure the smooth running of our buildings, the major engineering systems on our premises will continue to be reviewed and assessed on a regular basis to make sure they perform properly, reliably and efficiently. If there is a need for replacement or updating of the systems, they will be carried out in a timely manner. In case of engineering system-related incidents, the lessons learnt will be thoroughly reviewed so as to strengthen the risk mitigation measures and service continuity of our systems.

Moreover, as part of our modernisation efforts we will foster a greener environment through incorporating various environmentally friendly measures and practices in the capital works projects for both new and existing buildings. For example, a systematic energy management mechanism will be established to formalise the deliberation and introduction of applicable energy conservation measures and emerging new technologies in order to optimise the energy efficiency of our hospitals. As part of an overall approach to improving our environmental performance, these initiatives will help us to reduce our carbon emissions and offset the rising trend in energy consumption incurred by new and bigger facilities as well as increases in hospital activities.

Make Buildings Safer

Safety of the built environment is fundamental to the provision of safe and high quality healthcare services, and we will continue to place priority on formulating and putting in place different measures to make our buildings safer. On the one hand, this includes ensuring safety standards are upheld in all major and minor capital works projects, as well as incorporating physical designs that support safer service delivery and movement of patients and staff within HA premises. On the other hand, it also includes ensuring safe and reliable round-the-clock operations in hospitals through the systematic upgrading or replacement of major electrical and mechanical engineering installations, such as main distribution switchboards, emergency generators and lifts, by implementing the safe engineering programme.

Key Actions on Capital Works and Facility Improvement

- Implement major hospital and clinic development projects within a budget of $200 billion in accordance with the 10-year plan
- Develop purpose-built facilities to support day services, rehabilitation services, barrier-free access and elderly friendly environment
- Carry out minor capital works projects with one-off government grant of $13 billion
- Establish a systematic energy management mechanism
- Implement the safe engineering programme

Business Support Services

The smooth day-to-day running of our hospitals and clinics depends on a wide spectrum of business support services that range from providing food to patients, to maintaining the proper functioning of medical equipment. To tie in with our strategies of expanding and transforming clinical services, opening new hospitals, and implementing advanced technologies as outlined in this Plan, business support services will be enhanced accordingly as a key enabler to support the increased service needs.

HA's Business Support Services cover the following functions:

- Hospital support services – including patient food, laundry, security, waste management, etc.
- Procurement, logistics and supply management
- Equipment management and maintenance
- Biomedical engineering services

Enhancements to business support services in the coming years will target at the main areas of patient food production, laundry, transportation service, and biomedical engineering services for the maintenance of medical equipment. In particular, we are looking at developing a supporting services centre to further expand our laundry and patient food production capacity. Moreover, we will leverage the adoption of advanced technology to enhance the management of assets like medical equipment so as to optimise their use.

Enhance Patient Food Production

In response to the growing patient load in HA hospitals there is a need to enhance our cook-chill food production capacity to meet the increased demand for patient food services. For instance, the patient food Central Production Unit located at Castle Peak Hospital is currently catering for hospitals in New Territories West Cluster as well as Queen Elizabeth Hospital, but will be extended to cover North Lantau Hospital as well. It will further cater for the new Tin Shui Wai Hospital and Hong Kong Children's Hospital when they commence service in 2017 and 2018 respectively.

Develop a Supporting Services Centre

It is envisaged that in the long run, our existing patient food production facilities will not be able to cope with the immense growth in service demand, as is the case for our laundry services. Hence, we are planning the development of a Supporting Services Centre in Tin Shui Wai in order to house a centralised patient food production unit to meet our longer-term service requirements and to enhance the quality, safety and cost-effectiveness of patient food services. The Centre will also accommodate a laundry to meet the projected increase in service demand, as well as provide HA with surge capacity for clean linen during risk-related events such as pandemic alerts, alongside improved risk management in handling infected linen. The laundry will be used to re-provision the Chai Wan Laundry currently located next to Pamela Youde Nethersole Eastern Hospital, so that the vacated site could allow for an expansion of the hospital to meet the projected clinical service demand. Besides, it will provide the opportunity for us to rationalise smaller laundry services and will also provide backup services for other laundries if needed.

Moreover, the Supporting Services Centre will house a central emergency store of key linen items and personal protective equipment (PPE) to enhance risk management and facilitate reliable deployment of these items in times of crisis, such as during infectious disease outbreaks, major incidents, or due to sudden surges in demand. It will also enable some storage space in hospitals to be freed up for addressing clinical service needs.

Reinforce Transportation Service

At the same time, transportation services for patients such as the Non-emergency Ambulance Transfer Service (NEATS) will be strengthened where necessary in order to aid our service transformation efforts in developing day rehabilitation services and facilitating early discharge of patients. Specifically, transport support improves the access and convenience for frail patients or patients with disability to attend day rehabilitation programmes, thereby facilitating their early discharge from hospital and recovery in the community. Moreover, for patients who need to be transferred from acute to extended care hospitals or to residential care homes for the elderly, transportation services will be important to facilitate their timely discharge from hospital.

Strengthen Biomedical Engineering Services

Our major direction for enhancing biomedical engineering services in the coming years will be on reviewing and reorganising the various maintenance service arrangements for medical equipment in HA, which include in-house service, outsourcing to original manufacturers, and Service Level Agreement with the Government's Electrical and Mechanical Services Trading Fund (EMSTF). The main objective is to strengthen our maintenance strategy for high risk medical equipment so as to support clinical service enhancements, improve patient safety, and align the safety standards of medical equipment among hospitals. Besides, we believe that greater diversification of service arrangements will help to reduce over-reliance on a single provider, thereby strengthening the quality, reliability and cost-efficiency of equipment maintenance.

Improve Asset Management

In order to enhance asset management, we will explore the application of advanced technology to improve our product tracking and tracing capability as part of the drive to support better utilisation of available resources, such as for medical equipment. This will be carried out through collaboration between the Business Support Services Department, Information Technology and Health Informatics Division, and Central Technology Office.

Key Actions on Business Support Services

- Extend the patient food services of the Castle Peak Hospital's Central Production Unit to more hospitals
- Conduct planning and development of a Supporting Services Centre in Tin Shui Wai
- Strengthen transportation services for patients, such as NEATS
- Review and reorganise the maintenance service arrangements for medical equipment
- Explore applicability of advanced technology to improve asset management

Information Technology and Health Informatics (IT&HI Services)

Information technology continues to transform the way in which HA functions, through improved connectivity, information sharing, intelligent software and use of mobile devices. Nearly every aspect of the clinical care delivered to patients, as well as non-clinical support like the business support and administrative functions of HA are influenced by rapid advances in IT.

Correspondingly, IT permeates across all strategies outlined in this Plan as a key enabler and crucial component for their successful implementation, and maintaining the security and availability of the IT systems is essential for smooth operations and patient safety. Specifically, we will continue to develop and enhance our IT systems with a focus on supporting initiatives in clinical service transformation, improvement of service standards, technology adoption, community partnerships, as well as in people and resource management.

IT Support for Service Transformation

We will develop the fourth generation of our Clinical Management System (CMS) harnessing the power of IT to support our service transformation initiatives. This will extend the underlying electronic architecture to facilitate improved effectiveness in information sharing, communication and coordination between teams across hospitals and community settings. The next generation of CMS is especially important for the development of Cluster / network-based services as well as multidisciplinary and integrated models of care.

IT is essential for enabling a high level of responsiveness to the ever increasing demand on public healthcare services and modernising care delivery. Innovation is central to supporting HA's future service directions with new strategic enablers including mobile computing, telecare, and data analytics.

In particular, efforts will be placed on enhancing the interface and integration of CMS and other clinical systems of different specialties and disciplines to make them more seamless and user friendly, and in improving the interface of different IT systems towards common electronic platforms in support of new service models. This includes improving the interface with IT systems for medical equipment and devices used for investigations and procedures so as to support the electronic recording and analysis of clinical data.

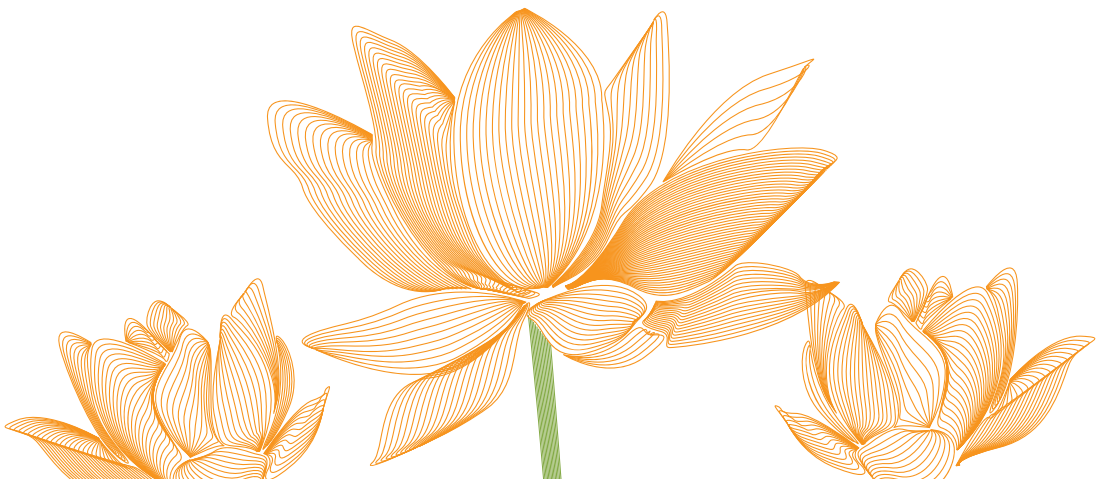
For example, along with the centralisation of certain clinical services, common electronic platforms will be set up to support more centralised reporting, such as for radiological imaging, with the possibility of exploring home reporting by clinicians as a way to further enhance service throughputs. With rapid advances in pathology services, IT solutions will be explored to cater to increasing laboratory automation, electronic reporting and more centralised recording of pathology investigation results, including a shift towards digital imaging. Moreover, in the development of day service models, a centralised IT system for referral, scheduling and cancellation will be established to enable the smooth operation of high volume procedure-based services like day surgery.

In light of the emphasis towards multidisciplinary working, the ability to digitally capture the workloads of different specialties and disciplines in multidisciplinary services, such as joint or combined clinics, will be improved. This is supplemented by IT systems for facilitating the smooth operation of back-of-house functions such as Non-emergency Ambulance Transfer Service (NEATS) and pharmaceutical services that are necessary for supporting clinical service enhancements.

Common electronic platforms will also be developed for optimising the use of facilities and workflow efficiency so as to assist in addressing access and waiting time issues. These include central booking and management systems for operating theatres; systems for facilitating bed management and coordination; and integrated electronic discharge summaries for enhancing patient transfer and coordination across different care settings. Moreover, in line with the HA Review Action Plan, we will continue to develop and refine our SOPC IT systems for coordinated triage, e-referral and e-scheduling, with built-in functions that enable the advanced monitoring and management of waiting lists and waiting time.

IT Support for Improving Service Standards

IT has and will continue to play a key role in enabling improved quality and safety of our services by strengthening systems for governance, monitoring and standardisation. In particular, we will further harness the use of IT as a platform for electronic-based protocols, algorithms and assessment tools to support more standardised care and enhanced patient flows. In addition, to support clinical governance, risk management and accountability, we will further refine our IT systems to enhance reporting and performance monitoring, including facilitating data analytics and the development of audits and outcomes monitoring for certain services. For example, dovetailing with the HA Review Action Plan, we will continue to refine the IT system and functional modules to enhance the accessibility and dissemination of information on KPIs to different levels of staff in order to promote organisation-wide learning and sharing of best practices.



IT Support for Technology Adoption

IT services will be developed with a longer-term view on how best to support the future delivery of healthcare services and in the building of the Smart Hospital of the future. This includes horizon scanning for innovations in the areas of data analytics, transformation to mobile interfaces, use of wearable devices, sensors and microcontrollers in patient care, as well as further use of robotic and automation technology.

In particular, we will explore the growing application of tele-care, tele-medicine and tele-monitoring in the delivery of healthcare. Examples include the use of tele-consultation to RCHE, such as video conferencing by allied health professionals in the provision of dietetic advice, or for remote patient monitoring in terms of blood pressure or glucose levels. This will assist to provide us with more versatile patient management options within the community and improve patient convenience by providing alternatives to hospital or outpatient visits.

We will also look into the feasibility of migrating more of our clinical and non-clinical activities to paperless and mobile platforms, where appropriate. For example, in hospitals this could include exploring shifts to paperless ward rounds through the use of tablet interfaces for reviewing patient records, to support clinical management decisions.

At the same time we will explore the use of mobile-health technologies and mobile apps to support more efficient workflows and enhance patient education and empowerment. On the one hand for our staff, mobile apps have the potential to support more convenient appointment booking, medication ordering, clinical requests, and formulation of care plans or treatment regimes. On the other hand for patients, mobile apps can help provide information, education and empowerment, as well as offer greater convenience. For example, apps can help in delivering information on a disease or conditions to support self-care, directing patients to self-help groups and community resources, providing information on medication side-effects such as via barcode scanning of prescriptions using smart phones, as well as providing reminder and scheduling functions for clinic appointments or for collection of medicines from the pharmacy. For instance, HA's TouchMed app enables patients to check when their medicines are ready for collection and provides useful drug-related information. In accordance with the HA Review Action Plan, we are developing mobile apps to facilitate patients' choice on cross-cluster new case booking, such as BookHA which provides a mobile platform for the public to submit applications for SOPC new case appointments.

IT Support for Community Partnerships

Along with greater collaborations with community partners and the development of initiatives to share out demand, such as through PPP, social enterprises and joint projects, the ability to share appropriate and relevant patient information with due diligence to data privacy and security will become increasingly important. In this connection, we will leverage the eHR initiative to provide an information sharing infrastructure bridging the public and private sectors. Furthermore, we will explore ways to further improve our information sharing with Government Departments to facilitate more coordinated care, such as with the Department of Health and Social Welfare Department.

IT Support for People and Resources Management

Enhancements to our corporate IT systems will be pursued to improve the efficiency of our various administrative and management functions.

IT will be leveraged to support the HR Department in developing its central coordinating role via enhancing HR systems and refining electronic communication platforms between Head Office and Clusters, enhancing the manpower and training database, as well as supporting ongoing developments and provision of e-learning, e-simulation and procedure-based training resources.

Moreover, IT will become an increasingly integral part of our staff engagement and communication strategies, especially with the development of common electronic platforms that improve rapid information flows and shifts towards mobile and application-based interfaces. Examples going forward include development of the HA staff portal and exploration of a staff mobile suite of apps in relation to benefits, pay, staff rosters and duty lists, staff clinics, e-learning, circulars and alerts.

We will explore the development of business rule engines and interfaces for enhancing the visualisation of financial data. Similarly, we will continue to develop IT to support other areas of our operations, especially those functions which are particularly complex or of significant scale and impact to HA, for example in the management and maintenance of HA's building stock, as well as in the planning and project management of capital works and facilities improvement across HA.

Key Actions on Information Technology

- Develop the fourth generation of CMS using common electronic platforms to support new models of care and improve workflow efficiency
- Refine IT systems to enhance standardisation, reporting and performance monitoring
- Develop an innovation framework and IT systems as an integral component of future healthcare service delivery and a Smart Hospital
- Leverage eHR sharing infrastructure to bridge the public and private healthcare information gap
- Enhance corporate IT systems relating to HR functions, financial management and capital works projects

Corporate Governance

Underpinning the strategies laid out in this Plan is robust governance in ensuring that HA operates and delivers its services in an effective manner with integrity, transparency and accountability. The HA Board is committed to good corporate governance and will continue to reinforce its leading and managing role on HA, as recommended in the HA Review. Specifically, the major directions for enhancing corporate governance will be to strengthen the stewardship of the Board and to enhance risk management.

Corporate Governance refers to the processes by which organisations are directed, controlled and held to account. It encompasses authority, accountability, stewardship, leadership and control exercised in the organisation.[8]

Strengthen the Stewardship of the Board

The specific corporate governance structure of HA, including the role and structure of the Board, is largely driven by the provisions of the HA Ordinance. In this respect, the Board gives leadership and strategic direction, manages and controls the organisation and supervises the Executive Management, and reports on HA's stewardship and performance. To effectively perform its function in leading and managing HA, the Board has established 11 Functional Committees with clear roles and delegated functions in providing advice on specific subject areas.

8 Efficiency Unit. (2015). *Guide to Corporate Governance for Subvented Organisations* (Second edition), The Government of the Hong Kong Special Administrative Region.

To ensure HA is effective and efficient in delivering its functions and tackling the key challenges it faces, the Board emphasises strategic planning to chart the overall direction of the organisation.

Moreover, the Board has set out overarching policies to guide and provide scope for the Executive Management who are responsible for implementing the approved plans and managing HA's operations. Accordingly, the Board regularly receives and considers reports from the Management on a wide range of matters including HA's performance, plans and initiatives, internal administration, changes in the operating environment, risk management and control, etc.

In order to further strengthen the stewardship role of the Board, we will pursue the dual strategies of (i) reinforcing the governance structure and processes of the Board, and (ii) reinforcing the roles and skills of the Board.

There are 11 Functional Committees under the HA Board to enable optimal performance of its roles in corporate governance:

- Audit and Risk Committee
- Emergency Executive Committee
- Executive Committee
- Finance Committee
- Human Resources Committee
- Information Technology Services Governing Committee
- Main Tender Board
- Medical Services Development Committee
- Public Complaints Committee
- Staff Appeals Committee
- Supporting Services Development Committee

Reinforce the Governance Structure and Processes of the Board

As part of the drive for continuous improvement and best practices, the HA Board commissioned a few years ago an external consultancy study on HA's corporate governance arrangements, and has been implementing the study's recommendations. For example, the respective terms of reference of the Functional Committees have been reviewed and refreshed so as to facilitate the Board to more actively lead and manage HA. The Board and its Functional Committees are also actively involved in the developmental stage of strategy and planning, providing input on strategy, and debating priorities for service planning and development. In fact, long-term strategy and planning has become a standing item on the Board's, as well as Functional Committees' agendas.

Building on the progress already made in implementing the recommendations from the consultancy study, as well as in response to recommendations in the HA Review, we will pursue a number of measures to further reinforce the governance structure and processes of the Board and embed best practices. These include:

- Enhancing advice and executive support to the Board to ensure efficient and accountable Board operations;

- Reinforcing the governance processes of the Board and its Functional Committees to ensure timely and informed deliberations, such as by strengthening proactive and forward agenda planning; and

- Nurturing more active involvement of the Hospital Governing Committees in managing HA at the Cluster / hospital level and fostering more active links with the Board, such as through common membership and enhancing communication channels.

Reinforce the Roles and Skills of the Board

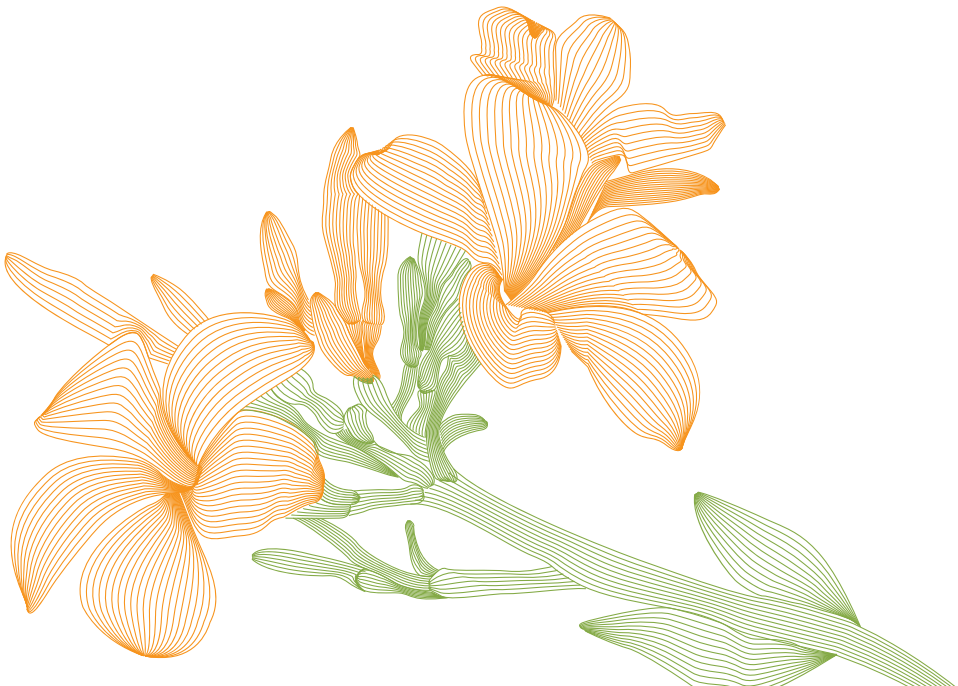
In parallel with strengthening the stewardship of the Board, steps will also be taken to further enhance its roles and skills, which include:

- Ensuring HA Board and its Functional Committees continue to have an active role at the developmental stage of strategies and in the formulation of policies and directions, including providing early input on strategy and service priorities. For example, by ensuring early engagement of the Executive Committee;

- Strengthening the role and participation of the Functional Committees in setting key standards, driving for best practices, and performance monitoring;

- Enhanced support for the Board to oversee and monitor the ongoing implementation of the HA Review Action Plan and other key performances; and

- Enhancement and broadening of the expertise and skills of the Board and its Committees by strengthening knowledge sharing, training, as well as Members' exposure to HA operations.



Enhance Risk Management

HA is committed to the management of risk and continuously improving the risk management process across the whole organisation, taking into consideration the complexity and scope of operations, the changing nature of the healthcare environment, and stakeholder interests.

> Risk is the possibility of an event or situation that has the potential to adversely impact the achievement of HA objectives, the delivery of services, or the implementation of HA projects.

Managing risk is an integral part of HA's overall approach to good corporate governance. It is recognised that rigorous risk management processes and systems provide the necessary foundations for the success and sustainability of HA in discharging its duties and caring for the health of the community.

Hence the Board has adopted an integrated approach to risk management to ensure the integrity of different organisational functions and reducing the likelihood of potential risks from happening. In this connection, an integrated organisation-wide risk management (ORM) framework has been developed and promulgated to enable proactive management of risk across HA. The ORM framework facilitates an integrated and standardised approach, which:

- Provides a holistic view of risks facing HA;
- Incorporates both clinical and non-clinical risks;
- Provides for risks to be managed at the appropriate level; and
- Achieves consistent processes for risk management across HA.

In terms of structure and process, at the Board level each Functional Committee receives a report on key risks identified in their ambit and corresponding mitigation actions planned for the coming year. At the corporate level, the Audit and Risk Committee considers an annual report on the key organisation-wide risks and the corresponding risk mitigation strategies, whereas the Executive Committee considers matters related to the overall risk management and facilitates the Board in discharging its responsibilities in this respect.

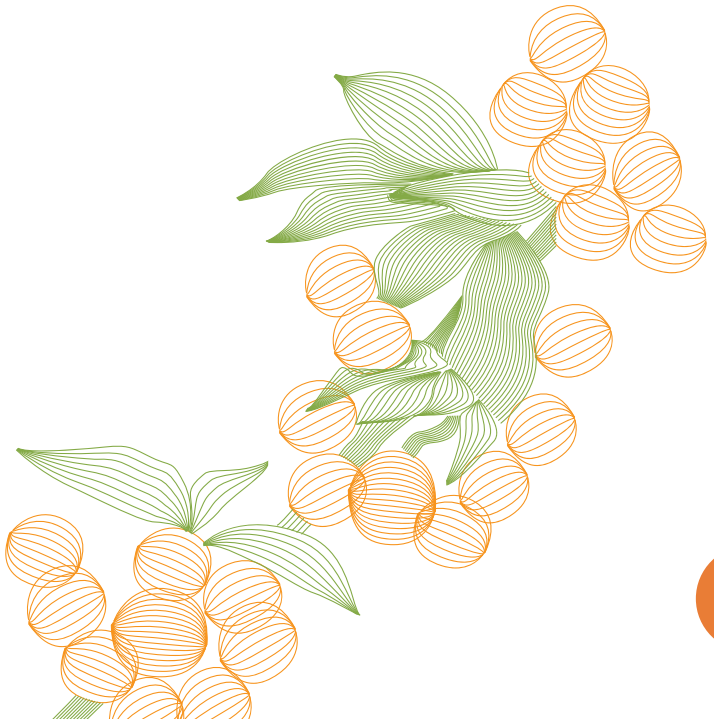
Building on our existing risk management structures and processes, the major strategy in the coming years is to strengthen and continuously improve the ORM Framework, so as to reinforce our capability and effectiveness in managing and monitoring risk. Specific foci for action are:

- Bringing together existing good practice, reinforcing and embedding the consistency of risk management practices across HA to better enable a consolidated organisation-wide view of risk to be formed and to develop corresponding risk mitigation strategies.

- Further integrating risk management practices with our planning, quality improvement and performance management processes, so as to help facilitate the prioritisation of initiatives and to support the drive towards ongoing improvements in quality and safety.

Key Actions on Corporate Governance

- Oversee and monitor the implementation of HA Review Action Plan
- Reinforce the governance processes of HA Board and its committees
- Broaden the expertise and skills of the Board and its committees
- Integrate risk management practices with planning, quality improvement and performance management processes



Implementation and Monitoring

Strategic Plan 2017-2022 serves as the overarching document for guiding all aspects of HA's development and planning in the coming five years, including our services, facilities, manpower, IT, business support, financial resources, etc. In particular, it provides the basis on which our clinicians and executives develop their programme initiatives through a longer-term planning approach.

Strategies and key actions of the Strategic Plan requiring addition or redistribution of resources will be implemented through the annual planning process. The Service and Budget Planning Committee (SBPC) chaired by the Chief Executive of HA and comprising all Directors and Heads and Cluster Chief Executives will steer the annual planning process to ensure the annual plans align with the Strategic Plan. In this regard, the five Annual Plans covering the period 2017-18 to 2021-22 will be the specific action plans for implementing the Strategic Plan.

In addition, the Strategic Plan will provide the overarching framework to guide the formulation of Clusters' Clinical Services Plan (CSP), which maps out the models of care, future service development and role delineation of hospitals in the respective Clusters. In this connection, HA will pursue major capital works projects along the lines of the 10-year plan for hospital and clinic development in the various Clusters, which will be implemented through the Government funding of $200 billion.

At the same time, HA continually takes into account and regularly reviews demographic and service statistics, with service demand projections covering the whole spectrum of HA services carried out at intervals to assess future trends. These data will help further inform and guide the implementation of the strategies, and whether any fine tuning is needed in working out the details of the various service programmes and initiatives.

Similarly, the manpower situation will be closely monitored in terms of turnover rates, vacancies, manpower strength and age profile to help facilitate workforce planning and deployment in the near term. In addition, manpower projections carried out at intervals will be used to inform about the longer-term staffing requirement of HA. Meanwhile, the recently rolled out staff satisfaction survey will be used to better understand staff concerns and views on areas HA can further improve on.

Monitoring of the implementation of the Strategic Plan will be led and overseen by the Board and its Functional Committees. Overall, a progress report will be submitted to the HA Board on a biennial basis on the implementation.

Besides gathering information from Head Office subject officers on the developments in their respective subject areas, the progress report will also take reference to other existing reports on HA's services and performance, including for example:

- Quarterly progress report on strategic priorities and programme targets of the HA annual plan;
- Quarterly progress report on KPIs, covering aspects of clinical services, HR and finance. This includes indicators on service growth, access, quality improvement, efficiency, manpower situation, staff wellness as well as budget performance;
- Reports of various audit and outcome monitoring programmes in HA, such as the SOMIP; and
- Survey reports on patient satisfaction and experience.

Moreover, many of the strategies and key actions laid out in the Strategic Plan dovetail with the HA Review Action Plan. Hence, the monitoring of those dovetailed areas will also be covered by the regular reports to the Executive Committee of the HA Board which will monitor the progress of the HA Review Action Plan.

Abbreviations

AED	Accident and Emergency Department
CC	Central Committee
CGAT	Community Geriatric Assessment Team
CMS	Clinical Management System
CNS	Community Nursing Service
COC	Coordinating Committee
COS	Chief of Service
eHR	Electronic Health Record
FMSC	Family Medicine Specialist Clinic
GOPC	General Outpatient Clinic
HA	Hospital Authority
HAHO	Hospital Authority Head Office
HGC	Hospital Governing Committee
HR	Human Resources
ICU	Intensive Care Unit
IT	Information Technology
KPI	Key Performance Indicator
NGO	Non-governmental Organisation
OSH	Occupational Safety and Health
PPCI	Primary Percutaneous Coronary Intervention
PPP	Public-Private Partnership
RCHE	Residential Care Home for the Elderly
SOMIP	Surgical Outcomes Monitoring and Improvement Programme
SOPC	Specialist Outpatient Clinic
SSF	Strategic Service Framework
STEMI	ST-elevation Myocardial Infarction
VMV	Vision, Mission and Values

Published by the Hospital Authority

We welcome your suggestions on the Hospital Authority Strategic Plan.
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This Strategic Plan can also be downloaded from the Hospital Authority website.

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