醫院管理局
HOSPITAL AUTHORITY

CLINICAL SERVICES PLAN

for the Kowloon East Cluster

將軍澳醫院
Tseung Kwan O Hospital

基督教聯合醫院
UNITED CHRISTIAN HOSPITAL

基督教靈實協會 靈實醫院
HAVEN OF HOPE CHRISTIAN SERVICE
HAVEN OF HOPE HOSPITAL

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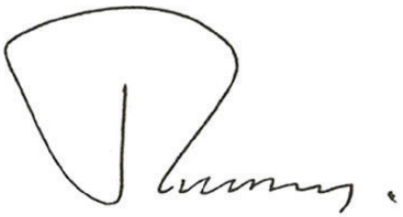
FOREWORD BY CHAIRMAN

With the staunch support from the HKSAR Government, public healthcare in the Kowloon region is undergoing exciting transformation. Particularly in the Kowloon East Cluster, we are carrying out a major redevelopment of United Christian Hospital to expand its capacity and to improve its services and facilities. Expansion and service enhancements are also currently underway in the Cluster's Tseung Kwan O Hospital and Haven of Hope Hospital.

At the same time, at the Kai Tak Development Area we are looking forward to completing the construction of the Hong Kong Children's Hospital, and actively planning for a possible new acute general hospital next to the Children's Hospital. Together, these will enrich and improve the healthcare services we can provide for the residents of Kowloon.

These new developments give us an opportunity to rethink the ways healthcare services are currently delivered in the face of ever-increasing demand from a growing and ageing population in the region. The challenge is for us to re-engineer our services and develop new models that could best cater for the long-term healthcare needs of the population.

It is hence opportune for the Kowloon East Cluster and the Head Office to formulate the Clinical Services Plan together to guide the changes and chart the Cluster's future service development. I am grateful for the vast support from the HA Board, Hospital Governing Committee members and colleagues in our change process. With the dedication and professionalism of our staff, I am confident we will see the fulfilment of more effective and efficient healthcare not only in the Kowloon East Cluster, but also in the whole Kowloon region.



Prof John C Y LEONG

Chairman
Hospital Authority

FOREWORD BY CHIEF EXECUTIVE

The Kowloon East Cluster Clinical Services Plan illustrates the Cluster's key strategies and directions for the provision of high quality and efficient services in meeting the community's long-term healthcare needs. Throughout the consultation process in developing the Plan, our Cluster colleagues have consistently expressed their commitment and wish for enhancements in the services they can provide for their patients. Their aspirations are epitomized by the new service models highlighted in the Plan that are conducive to the delivery of patient-centred care.

With the strong support from the mother boards of the hospitals, the Kowloon East Cluster has a distinct culture of fostering a close relationship with the local community. Building on the strength, new collaborative models are developed, which extend the legacy of the United Christian Hospital as a "Hospital Without Walls" as well as further enhance and showcase the close collaboration with community partners in the future service development of the Cluster.

Overall, high levels of collaboration and networking are the hallmark of this Clinical Services Plan. Taking cancer care as an example, integrated services will be provided by multi-disciplinary teams working across and rotating among the three hospitals in the Cluster and in partnership with non-governmental organisations. In fact, riding on the development of a new cancer centre in the United Christian Hospital expansion project, cancer services will be the new flagship service of the Cluster.

My sincere gratitude goes to the wide range of colleagues and patrons who have contributed to the development of the Clinical Services Plan. We count on your continued support and commitment in turning the strategies and aspirations into reality.

Dr P Y LEUNG

Chief Executive
Hospital Authority

PREFACE

The Clinical Services Plan for the Kowloon East Cluster has been jointly developed by colleagues from the Cluster and the Strategy and Planning Division of the Head Office. Formulated through a highly participative process of staff consultation, this Clinical Services Plan represents the thoughts and aspirations of frontline healthcare professionals in the Cluster and a wide range of stakeholders. It portrays how the staff believe clinical services in the Cluster should be developed to bring about better services for their patients.

Based on the overall direction of developing cluster-based services, colleagues in the Cluster have crystallised their aspirations for more integrated and coordinated patient care through the multi-specialty and cross-hospital clinical programmes highlighted in the Plan. Through enhanced teamwork and collaboration among the specialties and disciplines, the aim is for better alignment of services across the hospitals and hence synergy in the delivery of care that is more orientated towards the needs of the patients. The strategies reflect the concerted efforts among the staff in the Cluster to transform the way care is provided so as to better address the healthcare needs of the local community.

We would like to express our gratitude to the large number of frontline healthcare staff who have dedicated their time and efforts to the development of the Clinical Services Plan. In particular, we wish to thank the Co-chairs and members of the Clinical Work Groups for their immense contributions in formulating the service models of the clinical programmes. We are also much appreciative of the support from members of the Advisory Panel, who have provided us with invaluable advice throughout the formulation process.

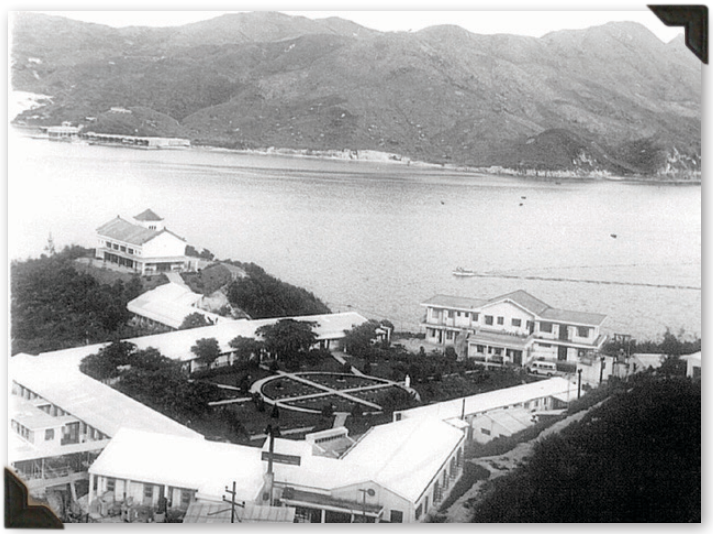
Dr T Y CHUI

Cluster Chief Executive,
Kowloon East Cluster /
Hospital Chief Executive,
United Christian Hospital

Dr S V LO

Director,
Strategy & Planning Division,
Hospital Authority Head Office

Early Days of the Hospitals...



Haven of Hope Hospital in 1960s

United Christian Hospital in 1980s

Tseung Kwan O Hospital in 2000s

EXECUTIVE SUMMARY

OVERVIEW

The Clinical Services Plan (CSP) for the Kowloon East Cluster (KEC) sets out the key strategies and service directions the KEC will pursue to meet the healthcare needs of the local community and to support the provision of high quality and effective services on an efficient and sustainable basis. The CSP has been formulated through a broad engagement process with staff from across the Cluster, and aims to address the key gaps and challenges the KEC faces.

The overarching service development strategies for the KEC are to (i) promote ambulatory services, (ii) develop cancer services, and (iii) strengthen collaboration. High levels of collaboration are the hallmark of the CSP, with a direction towards cluster-based approaches to service delivery a unifying theme. Moreover, riding on the development of a new cancer centre in the expansion project of United Christian Hospital (UCH), cancer services will be the flagship service of the Cluster.

The strategies underpin the aspiration of the KEC staff for more integrated and coordinated patient care by facilitating better alignment and hence synergy of services across the hospitals in the Cluster. This will enable services to better balance accessibility through more localised care, with the benefits of concentrating expertise and technology for improvements in safety and efficiency.

BACKGROUND

The KEC manages three hospitals, namely, UCH, Tseung Kwan O Hospital (TKOH) and Haven of Hope Hospital (HHH), as well as four specialist out-patient clinics (SOPCs) and eight general out-patient clinics (GOPCs), in the Kwun Tong and Sai Kung districts of Hong Kong, which covers a population of just over one million people (around 15% of the Hong Kong population).

To cater for the growing healthcare needs of the community, the hospitals in the KEC are undergoing expansion. The new ambulatory block at TKOH was completed in 2012, whereas the expansion project of UCH is currently underway, guided by a CSP published in 2012 for the hospital's redevelopment. Besides, the expansion project of HHH is also under planning for reprovisioning of its infirmary beds and to enhance its convalescent / rehabilitation capacity.

At the same time the Kowloon region is undergoing significant transformation, including new infrastructure and residential development projects, as well as the construction of the Hong Kong Children's Hospital (HKCH) and planning for a possible new acute general hospital at the Kai Tak Development Area (Kai Tak). Correspondingly, these are anticipated to have an impact on the service utilisation patterns of the hospitals in the vicinity, especially UCH.

In view of the above, the Hospital Authority (HA) commenced in January 2014 the development of the KEC CSP in order to map out the future service directions of the Cluster and update the service profile of UCH, so as to provide up-to-date information for the hospital expansion project, while at the same time optimising the provision of services and use of resources across the Cluster to better meet the needs of the local community.

PROJECT GOVERNANCE AND METHODOLOGY

The project has been overseen by a Project Committee, with regular reporting to the Directors' Meeting (DM) which provided overall steering for the project. The Project Committee comprised KEC senior clinicians and management, as well as members of the UCH, TKOH and HHH Hospital Governing Committees and senior management staff from the HA Head Office (HAHO).

To carry out and coordinate the project, a planning team was formed with members from both KEC and the HAHO. The planning team was supported by an experienced overseas healthcare service planner engaged as an external consultant to help carry out the consultation process and provide input to the project.

In addition, a workgroup comprising the Chiefs of Service in KEC was established to deliberate and align service proposals in the development of the CSP. Moreover, an Advisory Panel was formed to review and comment on the observations and recommendations made by the external consultant and to provide advice to the Project Committee.

The KEC CSP was developed through a structured process involving a wide range of stakeholders and clinical staff from the Cluster. The methodology involved "vertical specialty-based" consultation, followed by "horizontal programme-based" consultation that involved cross-specialty and multi-disciplinary stakeholders. Collectively the exercise included staff briefings, questionnaire survey, face-to-face interview sessions with frontline healthcare professionals, and formation of ten multi-disciplinary / cross-hospital clinical work groups (CWGs) to deliberate on the future development of clinical programmes. A one-day seminar marked the culmination of the CWG deliberations and conclusion of this phase of consultation.

The draft KEC CSP was made available to around 530 key stakeholders between 2 September and 5 October 2014 to solicit feedback and suggestions. The stakeholders included management staff and clinicians from the KEC, the Hospital Governing Committees of the KEC hospitals, and senior executives from the HAHO. Responses received were carefully reviewed and deliberated by the KEC CSP Project Committee and used as a basis to refine the CSP.

Following formulation, the KEC CSP was submitted to the DM for endorsement, followed by the Medical Services Development Committee (MSDC) for approval.

KEY CHALLENGES

The KEC is operating in an increasingly challenging environment of intensifying demand for services, and three overarching challenges were highlighted for action.

First, escalating service demand from the local community, driven by rapid population growth and ageing. This includes the increasing burden from chronic diseases and diseases common among the elderly.

Second, accessibility issues and capacity contraints in service delivery. For example, due to bed capacity issue, a significant number of patients requiring rehabilitation services are transferred outside of the KEC for management,

which affects the continuity of care. Also, due to currently limited cancer services in the KEC, patients need to be referred to Queen Elizabeth Hospital (QEH) in the Kowloon Central Cluster (KCC) for certain diagnostics and therapeutic interventions.

Third, with the establishment of the HKCH and planning for the possibility of a new acute hospital at Kai Tak, there is a need to consider the anticipated effects on services in the KEC, as well as future networking arrangements for tertiary and quaternary services.

GUIDING PRINCIPLES

A set of guiding principles were crystallised during the consultation process to form a common basis for staff to develop the strategies and service directions for tackling the key challenges faced. They are as follows:

(i) Services should be *patient- and family-centred*, which are organised and orientated towards the needs of patients, their families and carers in a way that is convenient to them and engaging them as active participants in their care. This includes the development of one-stop services for patients as well as enhancement of the collaboration among primary care, hospitals, non-governmental organisations (NGOs) and other community partners in supporting patients' transition back to the community.

(ii) Services should be *well-integrated and coordinated* to streamline the provision of care across different settings and at different stages of a patient's clinical pathway. Wherever possible, there should be collaboration among specialties, hospitals and clusters to support the delivery of patient-centred care and to facilitate more efficient use of manpower and facilities, such as through developing cluster-based services.

(iii) Service planning should be based on the principle of *"localise where possible and centralise where necessary"*, the aim being to strike a balance between achieving better service accessibility for patients through more localised care on one hand, and harnessing the benefits of concentrating expertise and technology for the improvement in safety and efficiency on the other.

STRATEGIC FRAMEWORK

Leading on from the guiding principles, the overarching strategies for the development of services in the KEC are to (i) promote ambulatory services, (ii) develop cancer services, and (iii) strengthen collaboration. Together, the strategies underpin more integrated and coordinated care by facilitating better alignment of services across the hospitals in the Cluster to harness the full potential of staff and efficient use of resources for the maximum benefit of patients.

Promote Ambulatory Services

Riding on the pioneering work and positive outcome of KEC in developing ambulatory services at UCH as a safe and effective alternative to hospital admission, the new emphasis is that the possibility for ambulatory care should be considered for each and every patient before in-patient admission. This will apply to urgent as well as elective cases, and it entails the development of one-stop services covering diagnostics and therapeutic interventions provided in an ambulatory care setting according to the patient's needs and urgency.

Moreover, extending the concept of one-stop service, a general medical care model can also be developed for chronic disease management and elderly care in order to reduce the need for multiple patient visits and to reserve specialists' time for complex medical care. For example, an elderly patient with concurrent diabetes, hypertension and osteoporosis can be managed

by an internal medicine specialist or geriatrician without the need to attend other specialist clinic sessions.

Develop Cancer Services

The development of a new cancer centre in the UCH expansion project will not only fill the current oncology service gaps in the Cluster, it has also created in KEC a new vision to develop an integrated model of cancer services for the whole Cluster which will become the new flagship service.

A comprehensive range of cancer services will be provided by multi-disciplinary teams working across and rotating among the three hospitals in KEC and in partnership with NGOs. Thus, by the time radiotherapy service is commissioned at UCH, cancer patients will no longer need to travel to QEH for their radiotherapy sessions. Furthermore, a cluster-based arrangement will allow for cancer surgery and chemotherapy to be performed at both UCH and TKOH, thereby providing more localised and patient-centred care. Finally, for palliative care the three hospitals in the Cluster will work collaboratively to provide a seamless service for patients and their families / carers.

Strengthen Collaboration

To further address the key challenges, opportunities have been identified in the Cluster to develop collaboration among different specialties, hospitals and clusters so as to maximise the utilisation of facilities and to concentrate manpower and share expertise for the provision of efficient and high quality services.

The strategy includes cross-cluster collaborations particularly for tertiary and quaternary services; cross-hospital collaborations within the Cluster such as developing a surgical collaborative between UCH and TKOH to optimise the use of operating theatres (OTs) and developing cluster-based call teams for the treatment of life threatening conditions like stroke and acute myocardial infarction; as well as cross-sector collaboration including primary care, private practitioners and NGOs to support the transition of patients back to the community.

CLINICAL SERVICE PROGRAMMES

The ten CWGs have formulated the following service models for their respective clinical programmes requiring multi-specialty and cross-disciplinary collaborations, particularly those catering for the healthcare needs of a rapidly ageing population, having regard to the guiding principles for the CSP and by capitalising on advances in clinical practice and technologies and contemporary models of care.

Service Models in Response to Population Ageing

Ambulatory Services

It is recommended that ambulatory care should be considered for every patient to avoid or shorten unnecessary in-patient stay. The aim is to minimise in-patient stay through the provision of safe and effective alternatives. Applying to urgent as well as elective cases, this model requires the input of competent decision makers during the early part of the patient care pathway and prompt access to diagnostic facilities and other supportive services, in order for medical conditions that traditionally require in-patient care to be managed safely and effectively in an ambulatory setting.

Chronic Disease Management

A tiered and interfaced approach to care is recommended for the management of chronic diseases, in which the level of service provision is matched with the level of disease complexity and patients with need. Overall, the focus is on supported self-care for the large volume of patients with early, mild and uncomplicated disease through to integrated chronic disease management for patients with moderate

disease, and a case management approach for the comparatively smaller group of complex patients with severe impairments arising from complications.

Gastroenterology and Hepatology Services

To tackle the issues of growing hepatitis case-loads and access to endoscopy services, the focus is on strengthening joint collaborations among primary, secondary and tertiary care relating to gastroenterology (GI) and hepatology services in the Cluster, especially between UCH and TKOH, so as to match the level of care to patients' needs. A key feature of the model is maximising access and service capacity through a coordinated triage / booking scheme for primary and secondary care based on pre-defined pathways.

Elderly Services

With anticipation that the majority of patients served by the Cluster in the future will be elderly people, the recommendation is to develop elderly-focused services across the continuum of care, geared towards supporting health maintenance and independence within the community. The intensity of care provided should be matched to patients' needs and will focus on early assessment and intervention, discharge planning and mobilisation of community resources for patient support. Moreover, building on the concept of one-stop service, a general medical care model can be developed for managing older patients. In particular, in the management of chronic diseases for elderly patients, this will help to reduce the need for multiple patient visits and thus reserve specialists' time for complex medical care.

Musculoskeletal Services

Using inflammatory arthritis as an example, the recommended model for the management of musculoskeletal illnesses is the re-organisation of care to provide cross-specialty and multi-disciplinary care for coordinated patient assessment and referral, coupled with integrated care pathways focusing mainly on ambulatory care. To improve musculoskeletal rehabilitation, a seamless service is suggested, extending from the pre-admission phase through to community to address the bio-psycho-social needs of patients.

Other Service Models

Cancer Services

An integrated model of cluster-based cancer services is recommended, which will be provided by multi-disciplinary teams working across the three hospitals in KEC and in partnership with NGOs to provide coordinated care across the whole patient journey. Key components of the model include rapid assessment and triage of patients with suspected cancer, coupled with integrated cross-specialty care planning to expedite the treatment and holistic management of confirmed cancer patients. This requires a seamless provision of diagnostic facilities including endoscopic, radiological and pathology services to support timely diagnosis and treatment planning for cancer patients. Besides, case management will facilitate the provision of personalised and coordinated care for complex cases.

Critical Care Services

Inter-cluster and cluster-based collaborations are proposed, involving the concentration of tertiary emergency services at one location, and supported by a dedicated transfer service for the transport of critical care patients. It is also suggested to establish a separate department for intensive care services at TKOH to address service needs, as well as for the Cluster to develop special care beds to bridge the care gap between adult intensive care unit (ICU) and general wards.

(i) Emergency Percutaneous Coronary Intervention

A cluster-based service model is recommended for the provision of primary percutaneous coronary intervention (PPCI) for patients with ST-elevation myocardial infarction (STEMI). Cardiac teams at UCH and TKOH will form a combined team to make up the call-roster, so as to manage the demand and to facilitate more efficient use of facilities and share expertise. The ultimate aim is for STEMI patients in the KEC to have access to PPCI on a 24-hour basis through a networking arrangement.

(ii) Emergency Stroke Services

The recommendation is for an integrated multi-disciplinary 24-hour acute stroke service in the KEC, involving a collaborative cluster-based secondary care service between UCH and TKOH, along with designated stroke teams and acute stroke unit. Neurosurgical support will be provided by the KCC. To optimise patient recovery, reduce complications and support reintegration into the community, rehabilitation and secondary prevention will be strengthened along the care pathway.

Peri-operative Services

The CWG recommends re-organising and rationalising the peri-operative service in KEC to an integrated and multi-disciplinary cluster-based service, so as to align the utilisation of the OTs at UCH and TKOH. The peri-operative service will cover the whole patient journey, from the point at which a decision for surgery has been made through to when a patient has recovered and rehabilitated from surgery. This will be facilitated by one-stop nurse-led and protocol-driven Peri-operative Centres (POCs) to be established at the two acute hospitals as the coordinating hubs of the service. Leveraging on their strengths, UCH will focus on surgeries requiring longer post-operative recovery or the use of hybrid theatres, whereas TKOH will concentrate on day, short-stay or fast-track surgeries. Nevertheless, TKOH will continue to provide 24-hour Accident and Emergency (A&E) and acute services, including acute general surgery.

Obstetrics and Perinatal Services

Safe and sustainable services are the pre-requisite for the future obstetrics and perinatal service arrangement in the KEC. The consensus is for maintaining a single maternal and neonatal unit in the Cluster, with multi-disciplinary support. In this regard, the maternal and neonatal unit will remain at UCH before such service is available in the possible development of a new acute hospital at Kai Tak. Should the development go ahead for the new acute hospital, a review of the possible relocation of the unit to TKOH is recommended prior to service commencement of the new hospital. Also, there will be close collaboration with the HKCH and if developed, the new acute hospital at Kai Tak in the management of complicated pregnancies.

Mental Health Services

A collaborative model involving different specialties and different service units at various levels is proposed to optimise resources in a recovery-oriented and shared-care approach for mental health services. Accordingly, a proactive approach is taken to assess and manage patients at sources of common referral to the psychiatric out-patient service. At the same time, active involvement of patients and their carers in the recovery process will be facilitated, with rehabilitation programmes extending from in-patient settings through to the community covering the continuum of care.

HOSPITAL ROLE DELINEATION

Overall, the strategies and service directions set out in the CSP affirm the role of UCH as the tertiary referral centre of KEC. The development of a new cancer centre in the UCH expansion project will be the flagship service for the whole Cluster, whereas complex ultra-major surgeries will be concentrated at UCH as part of a cluster-based approach to peri-operative services. It will also be the main hospital in the Cluster for the provision of PPCI.

On the other hand, TKOH will continue as the district general hospital within the Cluster, providing 24-hour A&E and acute services, including acute general surgery. It will also continue to provide secondary care services to the local community. In addition, leveraging on its strengths, TKOH will develop services with a focus on promoting ambulatory care and expanding its role in the Cluster for high volume day- and short-stay procedures. At the same time, the hospital has a key role alongside UCH in the overall strategy for the provision of cluster-based time-critical services for life-threatening illnesses, including an acute stroke service and PPCI. Similarly, the provision of cancer care at TKOH will be enhanced in collaboration with UCH and according to service demand requirements.

Complementing the two acute hospitals, HHH will continue its role as the main hospital in the Cluster for extended care. Through more collaborative working, the hospital will provide convalescent, rehabilitation, palliative and infirmary services, well-integrated along the care pathway with UCH and TKOH.

IMPLEMENTATION ENABLERS

Many of the changes necessary to bring about the service directions can begin now and in some cases are already underway. Imminent planning will be required to draw up proposals for implementing the service recommendations outlined by the CWGs so as to put in place the key enablers for implementation, including facilities development, workforce planning, organisation and management of clinical service programmes, and development of information and communications technology (ICT). In connection, many of the CWGs propose setting up cluster-based taskforce or working groups to oversee the development of their respective programmes.

CONCLUDING REMARKS

Formulation of the strategies and service models laid out in the KEC CSP stems from the wisdom, professionalism and expertise of KEC staff and their dedication and enthusiasm in driving forward service innovations and improvements in patient care. It also builds on the strong tradition in the Cluster for fostering more community-orientated care through collaborations and partnerships, based on the philosophy of “Hospital Without Walls” for more integrated care with the community. With new perspectives generated through the KEC CSP, there is a renewed impetus among staff for re-organising and re-energising their services to meet the expanding and evolving healthcare needs of the local community they aspire to serve.

摘要

概覽

九龍東聯網臨床服務計劃闡述九龍東聯網的主要策略和服務方針，讓聯網在高效能和可持續發展的基礎上，提供優質和高成效的服務，以滿足區內的醫療服務需求。聯網內不同層面的員工廣泛參與制訂本計劃，旨在改善聯網的服務，以及更有效應付所面對的挑戰。

九龍東聯網的整體服務發展策略包括：(i) 提升日間醫療服務；(ii) 發展癌症服務；及 (iii) 加強協作。本計劃的重點是透過緊密的協作，發展以聯網為基礎的醫療服務。此外，藉著基督教聯合醫院（聯合醫院）擴建後將成立的新癌症中心，癌症服務將會成為聯網的旗艦服務。

聯網員工希望為病人提供更周全和更一致的服務；本計劃的策略是透過改善聯網內各醫院之間的服務安排和協同效應，協助員工達致這個期望。這將有助當區醫院提供常用的醫療服務以方便居民，亦可以集中專長和科技，從而提升醫療服務的安全性和效率。

背景

九龍東聯網轄下共有三間醫院，包括聯合醫院、將軍澳醫院、靈實醫院，以及四間專科門診診所和八間普通科門診診所，分布於觀塘及西貢區，人口逾100萬（約佔香港總人口的15%）。

為迎合區內與日俱增的醫療需求，聯網內的醫院正進行擴建。將軍澳醫院的日間醫療服務大樓已於2012年落成；而聯合醫院正按2012年發表的醫院重建臨床服務計劃進行擴建。另外，靈實醫院現正規劃擴建項目，以重置療養病床及改善療養／復康服務。

與此同時，九龍區正在急速發展，包括新的基建和住宅發展項目、香港兒童醫院興建工程，以及研究在啟德發展區興建新急症全科醫院。這些發展預料會影響鄰近醫院的服務使用模式，而對聯合醫院的影響尤甚。

有鑑於此，醫院管理局（醫管局）於2014年1月展開制訂九龍東聯網臨床服務計劃，訂立聯網未來的服務發展方針，並更新及闡述聯合醫院的服務範疇，為其擴建提供最新資訊，同時希望優化聯網的服務和提升資源運用的成效，滿足區內居民的醫療服務需求。

項目管治及執行方法

本計劃的制訂過程由一個項目委員會負責監督，而醫管局的總監會議則提供整體策導，並聽取項目委員會定期匯報進度。項目委員會的成員包括聯網的資深臨床及管理人員；聯合醫院、將軍澳醫院和靈實醫院的管治委員會成員，以及醫管局總辦事處高級行政人員。

聯網及總辦事處聯合組成一個規劃小組，負責統籌及制訂本計劃，並由一名資深的海外醫療服務策劃專家擔任顧問，協助進行諮詢和提供意見。

此外，聯網內的部門主管亦組成一個工作小組，負責研究及協調本計劃的服務發展建議。我們亦成立了顧問委員會，負責檢視專家顧問提交的諮詢結果及建議，並向項目委員會提供意見。

本計劃的制訂過程嚴謹，由聯網內不同持份者和臨床人員廣泛參與。所用方法是先進行專科為本的縱向諮詢，然後進行跨專科臨床項目的橫向諮詢。一連串的諮詢工作包括員工簡報會、問卷調查、與前線醫護人員面談，以及成立十個跨專科／跨醫院的臨床工作小組，研究臨床項目的未來發展。最後，我們舉辦了為期一天的研討會，總結臨床工作小組的建議及這個階段的諮詢結果。

本計劃的初稿於2014年9月2日至10月5日向約530位持份者蒐集回應和建議。這些持份者包括九龍東網的管理層和前線人員，聯網醫院管治委員會成員，以及醫管局總辦事處高級行政人員。項目委員會在詳細分析及討論所得的建議後，優化了計劃的內容，並提交總監會議審視，以及由醫療服務發展委員會通過。

主要挑戰

醫療服務需求激增，令九龍東聯網的運作環境充滿挑戰，以下是聯網須應對的三項主要挑戰：

一、區內人口急劇增長和老化，令醫療服務需求大增，包括慢性疾病和常見的老年病患所造成的壓力。

二、服務規模及便捷度不足，例如病床不足，導致不少復康病人須轉往其他聯網的醫院接受治理，影響治療的連貫性。此外，由於聯網目前只能提供有限度的癌症服務，故須將病人轉介到九龍中聯網的伊利沙伯醫院接受特定的診斷及治療。

三、因應鄰近啟德發展區內正在興建的香港兒童醫院，以及規劃中的新急症醫院，需要考慮這些發展對九龍東聯網服務的影響，以及第三層和第四層醫療服務未來的網絡安排。

指導原則

在諮詢過程中，我們得出一系列的指導原則。針對各項主要挑戰，聯網人員在制訂策略及服務方針時，均以這些指導原則為基礎：

(i) 服務應**以病人及其家人為中心**，切合病人、家人及照顧者的需要，制訂合適及便捷的安排，並鼓勵他們積極參與治療和護理角色。這包括為病人提供一站式服務，以及促進基層醫療、醫院、非政府機構和其他社區夥伴的協作，幫助病人重新融入社會。

(ii) 服務應**妥善整合及協調得宜**，務求病人在治療過程中於不同設施和階段皆能獲得順暢的服務。這有賴各專科、醫院及聯網之間提升協作，提供以病人為中心的服務，並更有效運用人手和設施，例如發展以聯網為本的服務。

(iii) 服務規劃應以**「在可行情況下於本區提供，在需要時集中處理」**為原則。在本區提供服務，能方便病人；而將專長和科技集中，則可提升服務安全性和效率。服務規劃應為兩者取得平衡。

策略性框架

以這些指導原則為基礎，九龍東聯網的整體服務發展策略為：(i) 提升日間醫療服務；(ii) 發展癌症服務；及 (iii) 加強協作。這些策略有助改善聯網醫院之間的服務安排，善用人手和資源，以提供綜合及協調的醫療服務，讓病人獲得最大效益。

提升日間醫療服務

聯網轄下的聯合醫院內科已率先發展日間醫療服務，在病人無需入院的情況下，提供另一個安全和有效的選擇，而且成效理想。藉著這項成果，醫院應考慮擴展其服務範圍。日間醫療服務適用於不同專科的緊急及非緊急個案，並涉及發展一站式的診斷和治療服務。

推展一站式服務的理念，對於慢性疾病及老年病人，亦可採納普通內科醫療模式為病人提供一站式服務。除了可減少病人多次求診的需要，亦可以讓專科醫生有更多時間處理複雜病症；例如一名患有糖尿病、高血壓及骨質疏鬆的老年病人，可由內科或老人科醫生跟進，而毋須到其他專科診所求診。

發展癌症服務

聯合醫院擴展項目新建的癌症中心，既可填補聯網現時腫瘤服務的不足，亦為聯網確立發展綜合癌症服務的新願景。這將成為聯網新的旗艦服務。

跨專業的醫療團隊將在聯網內的三間醫院提供全面的癌症服務。當聯合醫院的放射治療服務啟用後，區內病人將毋須前往伊利沙伯醫院接受放射治療。此外，透過聯網為本的服務安排，病人可在聯合醫院及將軍澳醫院接受癌症手術及化療，獲得更切合病人需要的本區服務。紓緩治療方面，聯網內的三間醫院亦會進行協作，為病人及其家人或照顧者提供有連貫性的服務。

加強協作

為進一步應對主要的挑戰，九龍東聯網將加強跨專科、醫院及聯網之間的協作，務求善用設施、集中人手及共用專長，以提供高效率和高質素的服務。

這方面的策略包括：跨聯網合作，特別是第三層和第四層醫療服務的合作；聯網內醫院的合作，例如聯合醫院與將軍澳醫院發展外科手術協作模式，以善用手術室；設立聯網為本的急症團隊，處理中風及急性心肌梗塞等危疾；以及跨界別協作，包括與基層醫療、私家醫生及非政府機構的合作，協助病人病癒後重返社區。

臨床服務項目

根據上述的指導原則，十個臨床項目工作小組就著需要跨專科及跨專業協作的臨床服項目，制訂了以下的服務模式。這些服務模式特別針對因人口老化導致醫療需求增加的項目。在製訂過程中，工作小組參照了本計劃的指導原則、臨床醫療和科技的發展，以及現代化的醫護模式。

應對人口老化的服務模式

日間醫療服務

對於每位病人，應先考慮是否能以安全及有效的日間醫療服務提供治療或護理，以避免或減少非必要的住院。日間醫療模式適用於緊急及非緊急個案，當中需要適時使用診斷設施和其他支援服務，在病人接受診治初期作出確切及專業判斷，以便過往需要入院治療的病症，可於日間醫療中心得到安全和有效的治理。

慢性疾病管理

建議採用分層及遞進方式管理慢性疾病，即按疾病的複雜性及病人的需要提供相應的服務。整體的服務重點是：對於患有初期、輕微及非複雜病症而數量較多的病人，着重協助他們加強自我照顧的能力；對於病情屬中度的患者，則採用綜合的慢性疾病管理；對於出現疾病併發症而病情較嚴重和複雜的較少數病人，則採用個案管理模式。

腸胃科及肝臟科服務

為應付不斷增加的肝炎個案及內窺鏡服務需求，我們將會重點加強聯網內與腸胃科及肝臟科有關的基層、第二層和第三層醫療服務的協作，特別是聯合醫院與將軍澳醫院的合作，以配合病人的服務需要。此模式的特點，是根據既定的治理流程，制訂一個協調基層和第二層醫療服務的分流和預約機制，加大病人流通量及服務量。

長者醫療服務

預期未來使用九龍東聯網服務的病人以長者居多，建議發展切合長者需要的醫療護理服務，重點是協助他們保健及維持獨立自主的生活。為病人提供的服務視乎個別需要而定，重點在於早期評估和介入、出院規劃，以及利用社區資源支援病人。此外，推展一站式服務的理念，為年長病人發展普通內科醫療模式，特別是管理長者慢性疾病方面，以減少病人多次求診的需要，同時讓專科醫生有更多時間處理複雜的病症。

肌肉骨骼系統疾病服務

以類風濕性關節炎為例，建議的肌肉骨骼系統疾病管理模式，是透過重整服務，以跨專科和跨專業方式，為病人提供協調的評估和轉介，並配合綜合的治理流程，重點提供日間醫療服務。為改善肌肉骨骼系統疾病的復康進度，建議由病人入院前以至出院後重返社區的整段期間，提供連貫的服務，照顧病人的生理、心理及社會需要。

其他服務模式

癌症服務

建議以聯網為本發展癌症服務，由聯網內三間醫院的跨專業團隊與非政府機構合作，為病人協調整個治療過程。主要服務包括：為早期懷疑癌症患者評估和分流，並為確診患者接受跨專科綜合治療進行規劃，讓病人盡早獲得治療及全面的照顧。這需要無縫的診斷服務，包括內窺鏡、放射檢查及病理學服務，為癌症病人及早作出診斷和制定治療方案。對於複雜的癌症，則可採用個案管理模式，提供個人化的照顧及增強個別服務之間的協調。

重症服務

為加強對重症病人的治理，建議進行聯網之間及聯網為本的協作，包括在指定地點集中提供第三層急症服務，並設立專屬的病人載送服務，運送危重的病人。此外，亦建議在將軍澳醫院設立獨立的深切治療部以應付服務需求，以及在聯網內增設加護病床，以填補成人深切治療部及普通科病房之間的服務缺口。

(i) 緊急冠狀動脈介入治療

建議為急性心肌梗塞病人提供聯網為本的緊急冠狀動脈介入治療。聯合醫院及將軍澳醫院的心臟科團隊，將成立一支24小時候召的聯合隊伍以應付需求，務求更有效使用設施和共用專長。最終目標是透過建立服務網絡，讓聯網內的急性心肌梗塞病人可獲得24小時緊急冠狀動脈介入治療。

(ii) 急性中風治療服務

建議以聯網為本，透過聯合醫院及將軍澳醫院的協作，並配合專責的中風醫療團隊及急性中風部門，提供24小時的跨專業急性中風綜合醫療服務，並由九龍中聯網提供神經外科支援。此外，為促進病人康復、減低併發症機會及協助病人重新融入社會，將會在治理流程中加強復康及預防再次中風。

手術服務

臨床工作小組建議重整及理順聯網的手術服務，採納綜合、跨專業及聯網為本的模式，協調聯合醫院及將軍澳醫院手術室的使用。兩間急症醫院將設立護士主導的一站式、規程為本的手術支援中心，統籌有關服務，讓病人由作出手術決定，以至復元及接受復康護理的整段期間，均獲得適切的照顧。兩間醫院將發揮各自優勢，聯合醫院會專注於需要較長康復期、或需要在混合型手術室進行的手術；而將軍澳醫院則會專注於日間或短暫住院手術。此外，將軍澳醫院會繼續提供24小時急症室及急症服務，包括急症外科手術。

婦產科服務

聯網婦產科未來的服務安排，着重於提供安全及可持續的服務。根據共識，聯網內會維持一個婦產及新生嬰兒部，並備有跨專業支援。就此，將會保留聯合醫院的婦產及新生嬰兒部，直至可能於啟德發展的新急症醫院落實興建及投入服務；同時建議在新醫院投入服務前，應研究是否將婦產及新生嬰兒部遷往將軍澳醫院。再者，聯網的婦產及新生嬰兒部將與在啟德新建的香港兒童醫院，以及可能興建的新急症醫院緊密合作，處理複雜的懷孕個案。

精神健康服務

建議採用跨專科及跨服務單位的協作模式，推行復元為本的精神健康服務，以善用資源，並在轉介源頭進行積極主動的評估和診斷。同時，透過將住院病人的復康活動推展至社區，鼓勵病人及照顧者積極參與病人的復元過程，達致連貫的照顧。

醫院的角色定位

整體而言，臨床服務計劃載列的策略和發展方針，確立了聯合醫院為九龍東聯網的第三層醫療轉介中心。聯合醫院擴建項目中的新癌症中心，將成為整個聯網的旗艦服務。除此以外，大型複雜手術亦會集中在該院進行，以配合聯網整體的手術服務方針。聯合醫院亦將是聯網內提供緊急冠狀動脈介入治療的主要醫院。

將軍澳醫院將繼續是聯網的急症醫院，提供24小時急症室及急症服務，包括急症外科手術，並繼續為區內提供第二層醫療服務。憑着現有優勢，將軍澳醫將主力發展日間醫療服務，並加強其於聯網內的角色，處理用量大的日間及短暫住院手術服務。同時，該院會與聯合醫院配合，為急性中風治療及緊急冠狀動脈介入治療等以聯網為本的重症治療，擔當重要角色。將軍澳醫院亦會與聯合醫院合作，因應需求加強癌症服務。

靈實醫院將繼續是聯網內提供延續醫療服務的主要醫院，並透過加強協作，配合聯合醫院及將軍澳醫院的治療流程，為病人提供療養、復康、紓緩治療及護養服務。

落實推行

為實施這些服務方針而需作出的各項變動，現時已可展開。聯網亦須盡快規劃及制訂方案，以便落實推行臨床工作小組提出的服務建議。這包括設施配置、人力規劃、臨床服務項目的籌劃和管理，以及資訊和傳訊技術開發。就此，多個臨床工作小組建議成立以聯網為本的專責小組或工作小組，負責制訂個別項目。

總結

九龍東聯網臨床服務計劃所制訂的策略及服務模式，體現了聯網人員的睿見、專業和幹練，以及他們對創新和改善醫療服務的決心和熱誠。本計劃秉承聯網一直以來持守的「無牆醫院」理念，以及促進醫療協作的深厚傳統，推展綜合社區醫療服務。由此衍生的新觀點，為員工帶來新動力重整及革新現有服務，以滿足區內不斷增加和改變的醫療需求。

INTRODUCTION

BACKGROUND AND PURPOSE OF PLAN

There are three hospitals in the KEC, namely, UCH, TKOH and HHH. The Cluster also manages four SOPCs and eight GOPCs.

The hospitals in the KEC are undergoing expansion in order to meet growing service demand from the community. The new ambulatory care block of TKOH was completed in 2012. The expansion project of UCH is currently underway and is guided by a UCH CSP published in early 2012, with funding for the preparatory and decanting works approved in July 2012. The expansion of HHH is also under planning for the re-provisioning of its infirmary wards and enhancing capacity for convalescent / rehabilitation care.

At the same time, construction of the HKCH, formerly known as Centre of Excellence in Paediatrics, has commenced at the Kai Tak Development Area in the latter part of 2013. In addition, in the 2014 Policy Address the Government announced that strategic planning studies were underway on the possible development of a new acute general hospital at Kai Tak.

The development of the HKCH and possibly a new acute hospital at Kai Tak is expected to have an impact on the service utilisation pattern of other hospitals, particularly for nearby hospitals and clusters, such as the KEC and in particular, UCH. The Kai Tak area is close to Wong Tai Sin and Kwun Tong districts and will be easily accessible to their residents. Therefore, if the new acute hospital at Kai Tak were to go ahead, parents may be more likely to bring their sick children to this hospital for medical treatments due to the magnet effect of the HKCH.

In view of the above, the HA has formulated this CSP for the KEC in order to map out the future service directions of the Cluster and to update the service profile of UCH in a timely manner to provide up-to-date information for the hospital expansion project. The CSP also serves to delineate the roles of the three hospitals in the KEC and align their services so as to optimise the utilisation of facilities and resources to better suit the healthcare needs of the local community.

The KEC CSP hinges heavily on the expertise and professionalism of the staff in the KEC. To gather their views on current services as well as aspirations on future models of care and service developments in the Cluster, a highly interactive and broad engagement approach has been taken to consult doctors, nurses, allied health professionals and pharmacists from across the KEC as well as Cluster executives and members of Hospital Governing Committees.

The formulation of the KEC CSP also builds on previous service development initiatives, in particular the UCH CSP published in 2012, to strengthen alignment and collaborations in optimising operation efficiency and effectiveness in the delivery of high quality and safe services within the Cluster and between clusters.

ABOUT THE KOWLOON EAST CLUSTER

The hospitals and clinics of KEC are located in and mainly serve the community of the Kwun Tong and Sai Kung districts. Their locations are indicated in *Figure 1*. The Cluster's four SOPCs and eight GOPCs together provide out-patient and day-patient services.

The KEC has sought to develop collaborative roles and services among its hospitals so that they are complementary and contribute to improving the efficiency and quality of patient care. In addition, the KEC collaborates with hospitals in other clusters to provide care for its patients, including Pamela Youde Nethersole Eastern Hospital in the Hong Kong East Cluster, as well as QEH and Kowloon Hospital (KH) in the KCC.

District Population

The populations of the Kwun Tong and Sai Kung districts are 634,000 and 441,000 respectively (2012)[1], which together account for approximately 15% of the overall Hong Kong population. The characteristics of the residents of these two districts are quite different. For example, the population of Kwun Tong district is relatively older (16% aged 65 years or over) compared to Hong Kong overall (14% aged 65 years or over), with lower than average median domestic household income and lower proportion of the population aged 15 years or over with post-secondary educational attainment. On the other hand, Sai Kung district has a relatively younger population with a lower proportion of elderly people (9% aged 65 years or over) compared to Hong Kong overall, a higher than average median domestic household income, and higher than average post-secondary educational attainment for the population aged 15 years or above.[2]

Service Statistics

The Cluster manages a total of 2,487 available beds as at March 2014[3] through a workforce of around 6,500 staff.[4] These include 1,839 acute beds, 452 convalescent / rehabilitation beds, 116 infirmary beds and 80 psychiatric beds.[3] In terms of service volume, in 2012-13 the Cluster managed approximately 307,470 A&E first attendances; 120,640 in-patient discharge episodes[5]; 46,500 day patient discharge episodes[5]; 745,930 SOPC attendances; and 920,600 GOPC and Family Medicine clinic attendances. In the same period there were around 4,940 live births in the KEC (the Government policy of not admitting non-entitled pregnant women was implemented in 2013), accounting for 11% of the total live births in HA.[6] Certain specialist services are supported by other clusters, such as trauma, neurosurgery, radiotherapy and other HA quaternary services.

The Cluster manages a high proportion of elderly patients. For example, around 60% of in-patient bed days in the Cluster were occupied by patients aged 65 years or over. Most services delivered in the KEC are provided to residents from the Kwun Tong and Sai Kung districts. For example, approximately 90% of the Cluster's in-patient services (including acute, convalescent and rehabilitation and local infirmary) and A&E first attendances were provided to the residents from these two districts in 2012.

Kwun Tong and Sai Kung residents are also supported by other clusters in terms of tertiary

1 Mid-2012 population estimates by the Planning Department.
2 2011 Population Census by the Census and Statistics Department.
3 HA Quarterly Bed Report (as at March 2014), Statistics and Workforce Planning Department.
4 Number of full-time equivalent staff (as at March 2013), HA Annual Report 2012-2013.
5 Includes discharges and deaths.
6 HA Statistical Report 2012-2013, Statistics and Workforce Planning Department.

and quaternary services, and convalescent, rehabilitation and local infirmary services. In particular, for cancer patients in the KEC, they are referred to other clusters for radiotherapy treatments as the facilities are not currently available within the KEC hospitals. In addition, according to historical arrangement, KH in the KCC is providing convalescent and rehabilitation beds to support the extended care needs of KEC patients. With regard to A&E first attendances, around 16% of the residents in the two districts use services provided by other clusters, mainly the KCC and the Kowloon West Cluster (KWC).

Figure 1. Map of institutions of the Kowloon East Cluster

		Hospital/ Institution	Specialist Outpatient Clinic	General Outpatient Clinic
1	United Christian Hospital	●	●	△
2	Tseung Kwan O Hospital	●	●	
3	Haven of Hope Hospital	●	●	
4	Yung Fung Shee Memorial Centre (UCH)		●	
5	Kowloon Bay Health Centre GOPC (UCH)			●
6	Kwun Tong Jockey Club Health Centre GOPC (UCH)			●
7	Lam Tin GOPC (UCH)			●
8	Mona Fong GOPC (TKOH)			●
9	Ngau Tau Kok Jockey Club GOPC (UCH)			●
10	Shun Lee GOPC (UCH)			●
11	Tseung Kwan O (Po Ning Road) GOPC (TKOH)			●
12	Tseung Kwan O Jockey Club GOPC (TKOH)			●

HOSPITALS AND INSTITUTIONS OF THE CLUSTER

The hospitals and institutions in the KEC provide a wide range of services to patients. A brief profile of each hospital is set out below to support the context of service planning outlined in the ensuing chapters. The current organisational structure of the Cluster is presented in *Appendix 1*, and a list of the services provided by its hospitals is presented in *Appendix 2*.

UNITED CHRISTIAN HOSPITAL

Opened in 1973 and founded through the cooperation of the Hong Kong Christian Council and the Alice Ho Miu Ling Nethersole Hospital, UCH is an acute general hospital located in the Kwun Tong district of Kowloon. It provides a wide range of services including in-patient, day-patient, out-patient and community care services.

Clinical Services

UCH is the Cluster regional hospital and serves as the tertiary referral centre for the KEC. The hospital manages 1,403 available beds [7] through a workforce of around 4,330 staff [8].

The hospital also manages five GOPCs and the geriatric day hospital, physiotherapy, psychiatry and radiology services of the Yung Fung Shee Memorial Centre, as well as the occupational therapy and pharmacy services of the Pamela Youde Polyclinic at Cha Kwo Ling Road. The five GOPCs are Kowloon Bay Health Centre GOPC, Kwun Tong Jockey Club Health Centre GOPC, Lam Tin GOPC, Ngau Tau Kok Jockey Club GOPC and Shun Lee GOPC.

UCH operates a 24-hour A&E service, with on average around 490 first attendances daily. [9] The A&E Department (AED) is a significant driver of hospital in-patient activity and on average around 30% of AED first attendances were admitted to in-patient wards for further treatment. In addition, UCH manages around 1,440 SOPC (clinical) attendances per day and 1,710 GOPC and Family Medicine Specialist Clinic attendances per day. [10]

[7] HA Quarterly Bed Report (as at March 2014), Statistics and Workforce Planning Department.
[8] Number of full-time equivalent staff (as at March 2013), HA Annual Report 2012-2013.
[9] Based on 2012/13 A&E first attendances, HA Statistical Report 2012-2013.
[10] HA Statistical Report 2012-2013, Statistics and Workforce Planning Department.

The hospital has been a pioneer of community-oriented services and community partnerships since the early 1970s. It promotes the concept of "Hospital Without Walls", which refers to the philosophy that although UCH is an acute hospital, it is integrated with the community. As such, services are developed with consideration of the community, where appropriate. Major examples include the Community Nursing Service (CNS), volunteer service, and geriatric and psychiatry outreach teams.

Special Services

The United Christian Medical Service (UCMS), an NGO and the former Governing Board of UCH, supports the work of the hospital. For example, the service of UCH is supplemented by three special services operated under the UCMS, namely the Chaplaincy Service, Child Care Centre and United Christian Nethersole Care Home. UCH and UCMS work closely together to improve the service for patients and the community, as well as provide support to staff.

At the same time, the hospital is a training centre for healthcare professionals, including medical, nursing and allied health. It currently houses the UCH Enrolled Nurse (General) Training School, as well as serving as an affiliated academic unit of both the Ear, Nose and Throat (ENT) Surgery of the Chinese University of Hong Kong and the Ophthalmology Department of the University of Hong Kong.

The hospital also provides territory-wide services in cleft lip and palate treatment for children, and 24-hour toxicology consultation service provided by the Hong Kong Poison Information Centre. In addition, a territory-wide umbilical cord blood collection site has recently been established at UCH, improving the stem cell service of the Blood Transfusion Service.[11]

Hospital Expansion Project

Currently underway is the expansion project of UCH to meet the rising demand for ambulatory and in-patient services arising from population growth and ageing demographics in the KEC. Following the Legislative Council's approval of funding in July 2012, preparatory works for the hospital expansion project are currently in progress. Based on the UCH CSP published in 2012, the expansion project aims to improve cancer, ambulatory, rehabilitation and convalescent services, as well as streamlining emergency services.[12] The expansion project is expected to be completed in 2021 and will further support the hospital's strategic direction *to become a community-orientated tertiary hospital of the 21st century*.

[11] HA Annual Report 2012-2013.
[12] Clinical Services Plan for the Redevelopment of United Christian Hospital (2012).

TSEUNG KWAN O HOSPITAL

Opened in 1999, TKOH is an acute general hospital, providing secondary care services mainly to the population of the Sai Kung district (which includes Tseung Kwan O), which has a population size of around 441,000.[13]

TKOH was the first institution in HA to adopt a triangular ward setting, creating a central open area for clinical staff to observe patients for more effective patient care and making more efficient use of space. In addition, facilities have also been designed to facilitate the efficiency of clinical services. For example, the AED is located adjacent to the Department of Radiology, whereas the OTs are directly linked up with the ICU for more efficient patient care.

Clinical Services

The hospital manages 623 available beds (comprising 557 in-patient beds, 46 day-patient beds and 20 A&E observation beds)[14] through a workforce of 1,490 staff [15]. The hospital also manages the Mona Fong GOPC, Tseung Kwan O (Po Ning Road) GOPC, and Tseung Kwan O Jockey Club GOPC.

The hospital's 24-hour A&E service has on average 350 first attendances daily.[16] In addition, a comprehensive range of services are provided to the community including in-patient services, specialist out-patient services, day ward services, day surgery services, integrated rehabilitation services and community services.

The Ambulatory Surgery Centre of TKOH, which is located in the main block of the hospital, commenced operation in 2007. The collaborative service design of the centre has provided a supportive work platform to multiple

specialties and surgical operations. The centre also adopts a one-stop peri-operative care approach in providing pre-anaesthetic assessment, post-operative clinical management and discharge support. In addition, the KEC Cataract Centre in TKOH, which was fully operational in 2011, is one of the two designated centres in HA performing high volume cataract surgeries, handling around 5,000 cases of cataract surgery per year.[17]

In addition, the hospital has set up a new Magnetic Resonance Imaging (MRI) Centre in 2012. An angio-suite will also be commissioned

[13] Mid-2012 population estimate by the Planning Department.
[14] HA Quarterly Bed Report (as at March 2014), Statistics and Workforce Planning Department.
[15] Number of full-time equivalent staff (as at March 2013), HA Annual Report 2012-2013.
[16] Based on 2012/13 A&E first attendances, HA Statistical Report 2012-2013.
[17] HA Annual Report 2012-2013.

in 2014-15 to be shared between the Cardiac team and the Radiology Department for invasive investigations and interventional services.

Meanwhile, new medical equipment and expertise to support intensive care, coronary and high dependency care are also being strengthened so that the hospital can provide a comprehensive range of acute and secondary care services for the community.

Hospital Expansion Project

The services in TKOH are expected to be enhanced and complemented by the completion of the new Ambulatory Care Block. Various ambulatory services have been scheduled to commence in phases since March 2012 when this new block was put into operation. Expanded service capacity for in-patient and specialist services has also been gradually built up to better meet the healthcare needs of the local community.

HAVEN OF HOPE HOSPITAL

Founded in 1955, HHH is a community / extended care hospital providing convalescent, comprehensive rehabilitation and long-term infirmary care under the auspices of Haven of Hope Christian Service and the HA. The hospital's mission is to care for its patients in a holistic, progressive and respectful manner and to help patients and their families face disease, pain and death with dignity and peace.

Situated in Tseung Kwan O, HHH manages 461 available beds, comprising 342 convalescent / rehabilitation beds, 116 infirmary beds, and 3 beds for providing acute service.[18] There are around 660 staff.[19] Moreover, it is the only hospital in the KEC providing local infirmary services. It also runs the only comprehensive pulmonary rehabilitation programme and a comprehensive tuberculosis laboratory in the KEC.

The clinical services at HHH are provided via the Department of Medicine through four medical sub-specialties, namely respiratory medicine, geriatric medicine, rehabilitation medicine and palliative medicine. In addition to the specialist services provided at the hospital, HHH also cares for discharged patients and other patients living in the community. This includes developing a network of community-based care services such as the Community Geriatric Assessment Team (CGAT), CNS, Palliative Home Care Teams, and partnerships with health and social service providers in the local community.

Hospital Expansion Project

The expansion project for HHH is currently under planning to increase the capacity of convalescent / rehabilitation beds, re-provision the infirmary wards, expand the geriatric day hospital capacity and set up an integrated carer support centre. The expansion project will also greatly enhance physical accessibility of the hospital complex to the community.

[18] HA Quarterly Bed Report (as at March 2014), Statistics and Workforce Planning Department.
[19] Number of full-time equivalent staff (as at March 2013), HA Annual Report 2012-2013.

PLANNING PROCESS

GOVERNANCE

The project to develop a CSP for the KEC began in January 2014. The project was overseen by a Project Committee, with regular reporting to the DM which provided the overall steer for the project. The Project Committee was jointly chaired by the Cluster Chief Executive of the KEC and the Director of the Strategy and Planning Division from the HAHO.

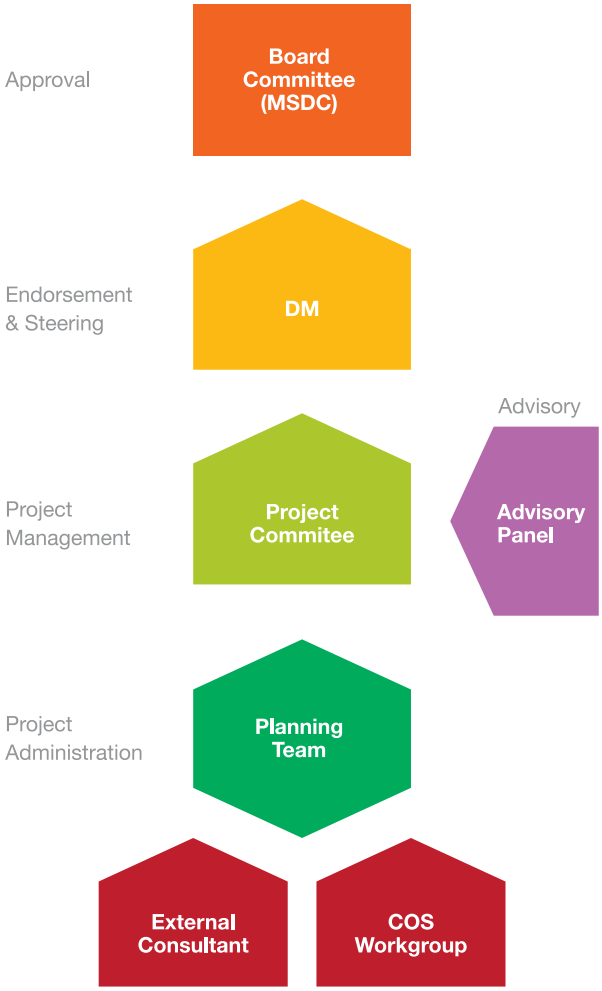
To carry out and coordinate the project, a planning team was formed with members from both the KEC and the HAHO. The planning team was supported by an experienced overseas healthcare service planner engaged as an external consultant to help carry out the consultation process and provide input to the project. In addition, a workgroup comprising the Chiefs of Service (COS) in the KEC was also established to deliberate and align service proposals in support of the development of the CSP.

Moreover, an Advisory Panel was formed to review and comment on the observations and recommendations made by the external consultant and to provide advice to the Project Committee. The memberships and Terms of Reference of the Project Committee, Advisory Panel, Planning Team, and COS Workgroup are set out in *Appendix 3*.

Following consultation, the KEC CSP was deliberated and submitted to the DM for endorsement, and the MSDC for approval.

The overall governance structure of the project is illustrated in *Figure 2*.

Figure 2. Project governance structure



METHODOLOGY

The KEC CSP was developed through a structured consultation process. A wide range of stakeholders and clinical staff from the Cluster was involved to generate the clinical strategies. The following sections briefly outline the methodology.

Staff Briefing

In February 2014, a Cluster Briefing Forum was held to introduce the development of the KEC CSP to the Cluster. Over 200 service heads, senior clinical staff and executives from across the KEC attended the forum. Staff members were briefed about the project and were invited to participate in the planning process.

After the briefing forum, a two-phase consultation process covering "vertical specialty-based" and "horizontal programme-based" consultations was carried out as described in the ensuing paragraphs.

Vertical Specialty-based Consultation

This phase of specialty-based consultation involved a questionnaire survey and face-to-face interviews. The aim was to consolidate views from staff and key stakeholders on the current service profiles, perceived key service gaps and future developments at the hospital, at cluster and cross-cluster levels. In particular, views on the anticipated effects of the HKCH and a possible new acute hospital at Kai Tak on KEC services were explored.

Survey

In March 2014, a questionnaire survey was distributed to each clinical unit, department and institution in the KEC. As a department of clinical oncology has yet to be set up at UCH, a Clinical Oncologist from KCC who has been supporting KEC by providing services at UCH and the Chair of the Clinical Coordinating Committee (COC) in Clinical Oncology were invited to complete the survey and give their views about the development of cancer services in KEC.

The overall response rate for the survey was 98% (out of a total of 203 recipients). The completed surveys formed the starting point of discussions for the subsequent face-to-face interviews.

Face-to-face Interviews

Two rounds of face-to-face interviews were held in April 2014. There were a total of 105 sessions. Altogether, 405 clinical staff members were interviewed, including service heads and frontline medical, nursing, allied health and pharmacy professionals and hospital management.

The first round of interviews was sessions with COS of the hospital departments and their sub-specialty team heads as well as Department Manager. In the second round, sub-specialty team heads and their team members were interviewed. In addition, views were also sought from the Chairmen of the three Hospital Governing Committees and the Hospital Chief Executives on the future service developments of their respective hospitals.

Horizontal Programme-based Consultation

The second phase of the consultation was conducted between May and June 2014 and involved the formation of ten programme-based CWGs. The purpose of the CWGs was to provide a platform for stakeholders from different disciplines, specialties and hospitals in the KEC

to formulate cluster-based proposals on the development of specific clinical programmes. The CWGs, chairmanship and composition were advised by the COS workgroup and reviewed by the cluster management and the external consultant in conjunction with the KEC and HAHO planning team. Altogether, 173 frontline colleagues were engaged in this phase of the consultation process.

A one-day seminar held on 20 June 2014 marked the conclusion of this consultation phase. The seminar was facilitated by the Deputising Director of the Strategy and Planning Division from HAHO and attended by around 270 participants, including the Chief Executive of HA, Cluster Chief Executives from KEC and other clusters, clinicians, nurses, pharmacists, allied health professionals and other HA executives. Proposals put up by each of the CWGs were presented and discussed. The ten CWGs were on ambulatory services, chronic disease management, cancer services, critical care services, peri-operative services, obstetrics and perinatal services, gastroenterology and hepatology services, elderly services, musculoskeletal services, and mental health services. Their proposals are summarised in the chapter on Clinical Service Programmes.

ROLE DELINEATION

Based on the information and deliberations from the two phases of consultation, the future roles of the hospitals in the KEC were delineated. In addition, there was an outline of service alignment of KEC with other clusters, with particular reference to the HKCH and a possible new acute hospital at Kai Tak.

DEMAND PROJECTION

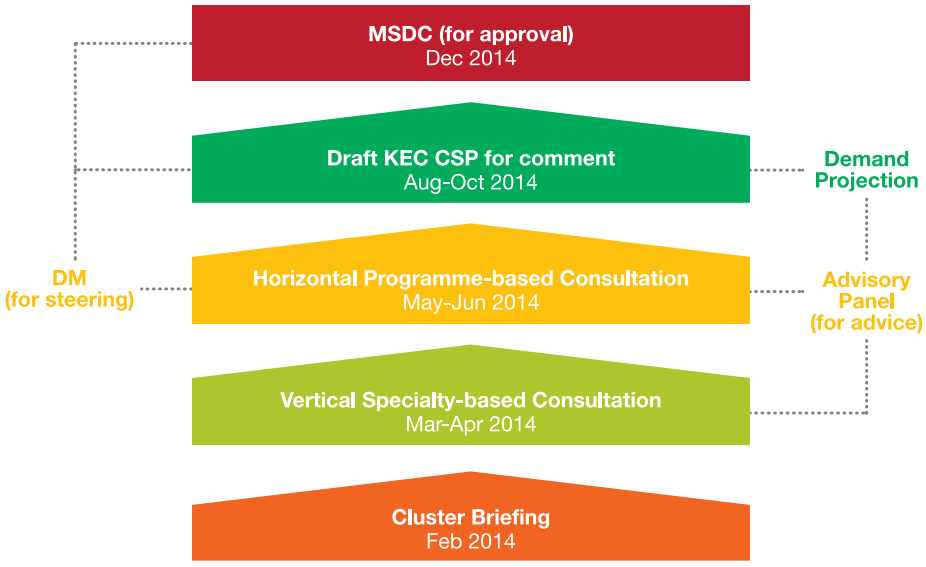
Projections on the service demand and bed requirements of KEC were estimated up to the year 2031. The projections took into account the demographic and population changes, past trends of HA-average and age-gender-specialty specific service utilisation, as well as the hospital patronage pattern across districts.

POLICY OVERLAY

Members of the DM provided policy overlay for the development of the KEC CSP. This involved decisions at high level, incorporating broad considerations of the views of various stakeholders, including relevant government bureaux and the HA Board.

An overview of the process and methodology for the development of the KEC CSP is illustrated in *Figure 3*.

Figure 3. Process and methodology for the development of KEC CSP



KEY CHALLENGES

The Kowloon region is undergoing significant transformation, which will have a profound effect on the healthcare services provided by the KEC. Among the changes, the Kai Tak Development Area is a major contributor. This includes new roads, residential flats, healthcare facilities and many other related developments which are being planned and built to link Kai Tak to the rest of Kowloon. In addition, old districts in Kowloon, such as Kwun Tong, are also being rapidly redeveloped.

Together with the planned developments in new towns such as Tseung Kwan O, the population and demographic characteristics of the districts being served by the KEC are rapidly altering. Given these challenges ahead, the staff in the KEC identified the need for a paradigm shift in the way care is provided in the Cluster in order to meet the evolving needs of the population. As the overarching blueprint for future service developments in the Cluster, the KEC CSP aims to address a number of key challenges, which are set out below.

RAPIDLY GROWING POPULATION AND CHANGING DEMOGRAPHICS

The population in the districts of Kwun Tong and Sai Kung (including Tseung Kwan O), where KEC hospitals and healthcare facilities are located, is growing rapidly. The total population in these two districts is projected to increase by 11% (from 1,075,000 to 1,190,400) between 2012 and 2021. The Kwun Tong population will increase by 8% and the Sai Kung population by 15%.[20]

These are contributed by major development projects in the Kwun Tong and Sai Kung districts. These include the Kwun Tong Town Centre Redevelopment Project where 2,000 residential flats will be provided by 2021[21], as well as the Anderson Road and the Anderson Road Quarry Projects which will lead to an increase in population of up to 48,000 and 25,000 respectively.[22] With regard to Tseung Kwan O, undeveloped areas at Town Centre South and Tiu Keng Leng will likely accommodate an increase in population of 25,000,[23] whereas there are also other private residential development projects at LOHAS Park.[24]

On top of the escalating numbers in population, the demographic characteristics of the population are also changing fast. For the same period between 2012 and 2021, the percentage increase of the population aged 65 years or over is 27% for the Kwun Tong district (from 104,500 to 133,000) and 68% for the Sai Kung district

[20] Projections of Population Distribution 2013-2021, Planning Department.
[21] Follow-up Action on PWP Item No. 111KA Government, Institution or Community Facilities in the Kwun Tong Town Centre Redevelopment – Additional Medical and Health Facilities, Follow-up paper for Legislative Council Panel on Development [Paper No. CB(1)487/12-13(01)], Development Bureau, January 2013.
[22] Planning Study on Future Land Use at Anderson Road Quarry – Final Recommended Outline Development Plan, Discussion paper for Legislative Council Panel on Development [Paper No. CB(1)580/12-13(07)], Development Bureau, February 2013.
[23] Tseung Kwan O further development – Infrastructure works at Town Centre South and Tiu Keng Leng, Tseung Kwan O, Discussion paper for Public Works Subcommittee of Finance Committee [Paper No. PWSC(2009-10)28], Development Bureau, May 2009.
[24] MTR Corporation www.mtr.com.hk/eng/properties/lohas_lohaspark.html (Accessed August 2014).

(from 41,700 to 69,900).[25] Furthermore, the number of births in Hong Kong has significantly reduced since the government imposed a zero birth quota for non-local mothers.

In view of the changes in the population profile, healthcare services required in the Cluster will likely be dominated by the need to manage diseases such as ischaemic heart disease, diabetes mellitus, cancers and stroke that are more common in the older population.

Furthermore, since around 60% of in-patient beds days in the Cluster are occupied by residents aged 65 years or over, increasing service demand arising from population growth and ageing presents a formidable challenge for the KEC. Despite efforts to develop alternatives to hospital admission, increase efficiency and to support patients in the community, the scale of the anticipated rise and changes in demand requires a fundamental rethink of the way services are organised and delivered in order to be sustainable going into the future.

SERVICE GAPS AND ACCESS ISSUES

In the KEC there is also a need to respond to growing expectations from the local community on areas such as access and the scope of services. For example, the media has previously reported on the long waiting lists of various specialties in the KEC. Although efforts have been made to improve the situation, a longer-term strategy is required to help address it. This is of particular importance given the growing and ageing population, which has the potential to exacerbate service access issues.

There are also expectations with regard to the scope of services provided by the hospitals in the KEC. For example, there are limited cancer services in the KEC and the Cluster is relying on QEH in the KCC for clinical management support and the provision of radiotherapy service. With the development of cancer services being one of the major focuses in the UCH CSP published in 2012 for its redevelopment project, enhancements in this regard are highly anticipated by both the staff and the local community.

In addition, there has been persistent pressure from the local community to provide obstetric services in TKOH. However, in the context of a prevailing shortage of manpower in both medical and nursing staff and the lack of a critical mass in the number of deliveries from the Sai Kung district, the demand for obstetric services in the district continues to be served by UCH, with TKOH providing antenatal and postnatal services for pregnant women and infants.[26]

CAPACITY CONSTRAINTS IN SERVICE DELIVERY

The in-patient occupancy rate in KEC has been high, and efforts were put into opening additional beds in the Cluster over the past few years. However, there are still capacity issues, particularly in terms of extended care beds. For example, in 2013 the occupancy rate for the KEC convalescent / rehabilitation beds reached 90%. A significant number of patients requiring rehabilitation services need to be transferred and managed at the KH in the KCC. The cross-cluster provision of extended care has posed a problem to the continuity of care for patients.

In this regard, the UCH is undergoing a major redevelopment project of hospital expansion but it will not be completed until 2021. The decanting, demolition and construction works during this period may in fact add to the capacity constraints of the hospital. Strategies

[25] Projections of Population 2013-2021, Planning Department.
[26] Legislative Council Panel on Health Services – Provision of Obstetric Services in Tseung Kwan O Hospital, LC Paper No. CB(2)486/12-13(04).

are required to minimise any disruptions to services, particularly for the OTs at UCH, which are currently running at almost full capacity.

Given the imperative to manage rising healthcare demand in the Cluster, there is a need to enhance the efficiency of care. From the cluster-wide perspective this includes the efficient utilisation of resources between the hospitals, such as facilities and manpower. For instance, to better manage the growing demand in operative procedures, strategies are needed to plan ahead on how to increase the efficiency of OT utilisation in the Cluster, taking into account available capacity at TKOH and expansion project of UCH.

IMPACT FROM HOSPITALS AT THE KAI TAK DEVELOPMENT AREA

In addition to the major challenges outlined above, the development of the HKCH and a possible new acute hospital at Kai Tak nearby will affect the utilisation patterns of KEC hospitals and have an impact on their future service profiles.

Specifically, the HKCH will provide tertiary and quaternary paediatric services for the whole of HA. Construction of HKCH has already started in August 2013 and is targeted to commence service operation by phases in 2018. The HKCH will operate through a hub-and-spoke model with other paediatric departments to form a paediatric service network in HA. The HKCH will serve as a tertiary referral centre for complex cases, while the paediatric departments in other hospitals will provide emergency care,

secondary services (including step-down care) and community paediatric care. In this regard, the provision of paediatric and paediatric-related services at UCH and TKOH will require a certain degree of rationalisation.

Should a new acute hospital be developed at Kai Tak, together with the magnet effect of the adjacent HKCH as well as the development of new road networks leading to Kai Tak, it is anticipated that emergency paediatric and high risk pregnancy cases will converge to this new acute hospital.

SUMMARY

A number of significant factors are affecting the environment that the KEC is operating in. From the perspective of the KEC staff, it is increasingly clear that the way services have been organised and delivered must be reviewed if they are to better meet the needs of patients now and into the future. The following chapters describe the clinical strategies formulated by the KEC to address the highlighted challenges, underpinned by a set of guiding principles.

GUIDING PRINCIPLES

A set of guiding principles underpin the development of the KEC CSP. Reflecting the strengths and visions of the Cluster in delivering healthcare services, the guiding principles have formed a common basis for the staff and stakeholders' deliberations on the future models of care and service directions. As such, they are the foundation of the clinical strategies formulated by the KEC, as set out in the ensuing chapters. The guiding principles are set out below.

SERVICES SHOULD BE PATIENT- AND FAMILY-CENTRED

Patients, their families and carers should be placed at the heart of the web of services they receive, and should be engaged and empowered as active participants in their care. It is important for services to be organised and orientated towards the needs of patients, their families and carers in a way which is convenient to them and in settings which are safe, welcoming and appropriate. For example, one-stop services can enable patients to have their different needs met conveniently during the course of a consultation or visit in facilities that are easy to navigate. In the same vein, collaborations among primary care, hospitals, NGOs and other community partners can help to support the patients' transition back to the community through a better use of community resources.

SERVICES SHOULD BE WELL-INTEGRATED AND COORDINATED

Services should be well-integrated and coordinated to streamline the provision of care by healthcare professionals across different settings and at different stages of a patient's clinical pathway. This ensures care is seamless and well-aligned, with the level of care provided matched to the needs of the patient. Furthermore, closer collaboration among specialties, hospitals and clusters in supporting the delivery of patient-centred care will also facilitate more efficient use of manpower and facilities in the Cluster. Hence, the development of cluster-based services will be an underpinning approach to enhancing coordination and greater alignment of services across the KEC.

SERVICE PLANNING SHOULD BE BASED ON THE PRINCIPLE OF "LOCALISE WHERE POSSIBLE AND CENTRALISE WHERE NECESSARY" [27]

The aim of this principle is to strike a balance between achieving better service accessibility for patients through more localised care on the one hand, and harnessing the benefits of concentrating expertise and technology for the improvement in safety and efficiency on the other.

[27] Darzi A, Healthcare for London: A Framework for Action. London: NHS London; 2007.

SUMMARY

For the KEC, the principles of collaboration and coordination of services are of particular importance in facilitating patient care, given the presence of two acute hospitals in the Cluster and the networking with hospitals outside of the Cluster for certain services (e.g. rehabilitation and psychiatric services). From a cluster-wide perspective, clear alignment of the roles and functions of the hospitals in the Cluster is essential to nurture the development of collaborative models of care and to strengthen the coordination of services, so as to better meet the needs of the local community.

In this regard, the development of cluster-based service is a unifying direction within the principles and underlies the strategies and recommendations within the CSP. It underpins more collaborative and coordinated care and better alignment of services and teams across the hospitals in the Cluster, which will facilitate the provision of more localised care while at the same time allowing for the concentration of expertise and technology for better safety and efficiency. Ultimately, the aim is to drive care that is more tailored to the needs of patients and to harness the full potential of staff and resources in the Cluster for the maximum benefit of patients.

In summary, the principles set forth in the KEC CSP provide a reference for staff in the KEC to deliver and develop their services so that they are well-coordinated, and with opportunities for collaboration and partnerships maximised for the support of patient-centred care.

STRATEGIC FRAMEWORK

Based on the guiding principles set out in the previous chapter and information collated from the consultation process, an overarching framework has been formulated to guide the development of clinical services in the KEC and address the challenges faced by the Cluster. The framework comprises the following three major strategies:

(a) Promote ambulatory services

(b) Develop cancer services

(c) Strengthen collaboration

The major strategies capitalise on the innovative service developments that have been formulated to guide the expansion project of UCH. For instance, enhancement of cancer and ambulatory services are among the key strategies outlined in the UCH CSP. Building on these, the KEC CSP takes into account the broader cluster-wide perspective on service development.

By and large the strategies aim to better align services across the Cluster hospitals, such as through the development of cluster-based services, to create synergy in the delivery of care that is more orientated towards the needs of patients. At the same time, they aim to optimise the full potential of staff, facilities and equipment across the Cluster, so as to maximise service efficiency and effectiveness for the benefit of patients and support the sustainability of services.

Overall, the strategies reflect the concerted efforts among the staff in the Cluster to transform the way care is provided so as to better address the healthcare needs of the local community. They will support the KEC to better manage growing demand and deliver high quality patient-centred services.

PROMOTE AMBULATORY SERVICES

Riding on the pioneering work and positive outcome of KEC in developing ambulatory services at UCH as a safe and effective alternative to hospital admission, the new emphasis is that the possibility for ambulatory care should be considered for each and every patient before in-patient admission. Advances in treatments and drugs as well as a multi-disciplinary and skilled workforce mean that many procedures which once would have required hospitalisation can now be undertaken in ambulatory or short-stay settings.

The model calls for one-stop services providing diagnostics, assessment, treatment, interventions and other patient support services according to a patient's needs and urgency. By bringing these services together, ambulatory care can enhance the interface between different professionals and teams and as a result streamline the organisation of patient care. This means more convenience to patients, their families and carers, since the care they receive can be coordinated in a way that it is timely and can be delivered during the course of the same visit. In addition, through promoting better synergy among services, ambulatory care

enables the development of more personalised and responsive care so as to meet the holistic needs of patients, with options for referral to other specialist services as required. On the other hand, for more vulnerable patients, such as the elderly, ambulatory services can help provide alternatives to hospital admission or reduce hospital stay, thus supporting their maintenance in the community and the preservation of their social and other support networks.

The strategy for ambulatory services applies to both urgent and elective cases, as well as to chronic disease management, which are briefly described below.

Urgent Ambulatory Services

Urgent ambulatory services is an alternative to hospital admission that involves the provision of direct and definitive care and care planning for patients presenting to the AED. Patients for which urgent ambulatory services could provide most benefit include those with acute episodic illness or exacerbations of chronic conditions.

The key features of the service include priority access to diagnostics, assessment and treatment, supported by an integrated team of professionals for expert input and close collaboration with specialties and disciplines for streamlined care and priority consultation.

Elective Ambulatory Services

Elective ambulatory services involve those activities that can be provided on a planned and scheduled basis. These include elective medical procedures, short-stay surgeries, diagnostics and consultations. Elective ambulatory care can also support early patient discharge. Such services often involve the input from a range of professionals, specialties and disciplines and therefore are particularly appropriate to be delivered through a multi-disciplinary, one-stop service model for high quality, safe and convenient care. In the meantime, some sub-specialties in the KEC, such as rheumatology, have already shifted towards ambulatory models of care.

Ambulatory Chronic Disease Management

The third component under the strategy of promoting ambulatory services is chronic disease management. It reflects part of the Cluster's overall response to managing the growing number of patients with single or multiple chronic diseases and other long-term conditions, in particular for the elderly.

On one hand, as outlined above, urgent ambulatory services can provide effective and efficient ways to manage patients with acute exacerbations of chronic illness. On the other hand, for the significant number of chronic disease patients requiring ongoing maintenance and management, the development of ambulatory services provides major opportunities to strengthen the quality of routine care.

First, chronic disease management involves a spectrum of care depending on the needs of the patient, from supported self-management through to integrated disease and case management.[28] The development of chronic disease management in ambulatory settings can facilitate bringing together all the different multi-disciplinary services, professionals, facilities, information and other resources a patient requires under "one-roof" and organised in a way to comprehensively address their holistic needs.

[28] The levels of care reflect those outlined in the risk stratification triangle developed by Kaiser Permanente.

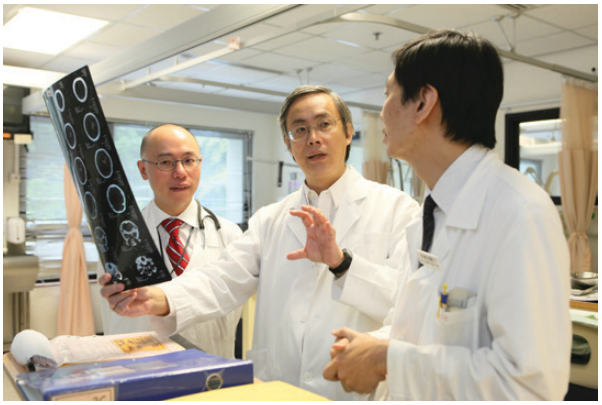
Second, the coordination provided through chronic disease management supports the development of accelerated protocol-drive pathways for referral, assessment, diagnostic work-up and management – all of which can be streamlined in an ambulatory setting.

Third, ambulatory settings can provide easily accessible and easy to navigate services for patients and their families in environments which are welcoming, and age- and culturally appropriate. The essence is to put patients with chronic diseases or other long-term conditions at the centre of the web of care they receive.

Extending the concept, a general medical care model can also be developed for chronic disease management and elderly care to reduce the need for multiple patient visits and to reserve specialists' time for complex medical care. In the model, patients with multiple co-morbidities will be managed by a single clinician with the knowledge and expertise to address their different healthcare needs, and with referral into specialist care for more complex management. In this regard, the general medical care model will require the specialists to take up general medical duties, and the generalists to strengthen their role in managing specific medical conditions. For example, an elderly patient with concurrent diabetes, hypertension and osteoporosis could be managed by an internal medicine specialist or geriatrician without the need to attend other specialist clinic sessions. While there is a need to restructure or reorganise the existing services in order to implement the model, care should be taken to avoid creating new services or even a new sub-specialty when doing so.

DEVELOP CANCER SERVICES

Development of an integrated cancer service is highlighted by staff in the KEC as one of the most important service developments for the Cluster to address the needs of a growing number of cancer patients from the local community.



Cancer Services as the New Flagship

The development of a new cancer centre in the UCH expansion project will provide a range of cancer services in dedicated state-of-the-art facilities, including diagnostics and different treatment options such as radiotherapy and chemotherapy, as well as services for pain and symptom management and support for the psycho-social and spiritual needs of patients.

Taking this further, the vision for cancer services has been extended for the whole Cluster, with cancer services becoming the new flagship service. The vision is for an integrated comprehensive cancer service, provided by multi-disciplinary teams working across and rotating among the three hospitals for the sharing of skills and expertise in the delivery of care. The aim is to provide seamless care through adopting a "whole patient" approach to treatment and management across the full continuum of patient care.

To realise the vision, cancer services will be developed through the formulation of protocol-driven clinical pathways and led by cluster-based multi-disciplinary teams for well-defined tumour streams, such as colorectal cancer and breast cancer. The teams will promote collaborations for treatment planning and management throughout the course of a patient's cancer care, bringing together all the professionals and disciplines involved, with patients and their family / carers at the heart of the multi-disciplinary teams as co-producers of their care.

Cancer services will be delivered in the Cluster on the principle of "localise where possible and centralise where necessary". Thus in terms of treatment both UCH and TKOH will have roles in surgery and chemotherapy, with UCH through its expansion project providing radiotherapy services.

Alongside these, psycho-social-spiritual support, rehabilitation, pain management, palliative services, end-of-life (EOL) and bereavement services are among the other services provided through collaborations among the three hospitals in the Cluster. Coupled with partnerships with NGOs and other community partners for complementary support and care, the aim is to provide comprehensive cancer care that meets the different needs of patients and their family / carers at the different stages of their illness.

Care Coordination

Given the complexities of cancer care, which often involve different specialties, disciplines and partners providing a range of services across different settings, care coordination is a crucial component to organise and streamline the provision and ensure continuity of patient care.

Cancer care involves different levels of service coordination depending on patients' needs. At one end, simply streamlining cancer care processes will suffice to minimise the need for patients to make multiple visits to obtain the necessary services. On the other end, for high complexity cases, such as those involving various different specialties or disciplines, or vulnerable patients with high levels of need, a case management approach will be adopted to provide more personalised care, with coordination of various services according to clinical pathways and patients' needs.

The case manager, who could be a nurse or allied health professional as part of a multi-disciplinary care team, can serve as the patients' advocate and support their navigation through the healthcare system, and provide links to other supporting services and community resources as part of a more holistic approach to care.

STRENGTHEN COLLABORATION

Strengthening the collaboration among specialities, hospitals and with other clusters have been seen by staff in the Cluster as opportunities to better manage growing demand and deliver high quality and safe services. This will maximise service efficiencies by making better use of staff competencies and facility capacities, while at the same time help to nurture a multi-disciplinary and skilled workforce.

These could make significant contributions to the care and experience of patients and their family / carers, such as the elderly or those with chronic diseases, as part of the continuum of care. For example, cluster-based collaborations among services can support timely access to assessment, treatment and management, and referrals to specialists when required, thus providing more effective and streamlined care.

However, traditionally many of the hospital departments and specialties in the KEC have operated independently, with little or varying degrees of collaboration. While some

specialties have already moved towards cluster-based services, such as ENT and ophthalmology, strengthening the collaboration across many other departments, specialties and services offers huge potential to support more coordinated and integrated patient-centred care, while at the same time enhancing service sustainability. The major strategies identified for strengthening collaborations are elaborated below.

Cross-cluster Collaboration

In the KEC, UCH provides obstetrics and gynaecology in-patient and delivery services, whereas TKOH provides obstetrics out-patient services. The CWG on Obstetrics and Perinatal Services extensively deliberated on the future provision and organisation of maternity and neonatal services within the Cluster. The consensus is one maternal and neonatal unit for the KEC that collaborates with the HKCH and, if developed, a new acute hospital at Kai Tak (in the KCC) for the management of complicated pregnancies.

Collaboration for Tertiary and Quaternary Services

For tertiary and quaternary services these are concentrated for reasons of caseload, maintenance of expertise, or because of location of advanced facilities or technology. The KEC will continue to strengthen its networking with hospitals in other clusters for the provision of these services and to enhance the coordination and continuity of care. These include networking arrangements for neurosurgery, cardiothoracic surgery, trauma, PET services and brachytherapy with the KCC. Networking arrangements will also be developed with the HKCH for tertiary and quaternary paediatric services, as well as paediatric surgery.

Cross-hospital Collaboration within the Cluster

From a cluster-wide perspective, strengthening the collaboration among the specialties and disciplines and across the Cluster hospitals has potential to unlock greater synergy in service delivery, particularly in concentrating expertise and maximising utilisation of facilities for efficient and high quality care.

Although there are differences in the way services have developed in the three hospitals in the Cluster, the shared goals by staff in the KEC for improving the quality of care and making best use of facilities has provided the impetus for greater cross-hospital collaboration and cluster-based services. This is especially the case for UCH and TKOH. As the two acute hospitals in the Cluster with AED services, there is significant scope for cluster-wide approaches to the joint planning of services, along the concept of “one service, two campuses”.

In particular, major strategies for the Cluster include a surgical collaborative and peri-operative model between UCH and TKOH to optimise the use of OTs and to manage the surgical load efficiently and safely through a redistribution of surgical cases. Also, for life-threatening conditions like stroke and acute myocardial infarction, which can happen at any time during the day, collaborations among

specialties and disciplines and across the acute hospitals (such as cluster-based call teams) will further strengthen and enhance the provision and resilience of time-critical services. At the same time, the development of cluster-based supporting services, such as radiology and anaesthesiology, will reinforce and complement greater cross-hospital collaboration in the provision of more joined-up, streamlined and efficient patient care.

Cross-sector Collaboration with the Community

Essential to the strategies outlined in the CSP is the enhancement of collaborations among hospital-based services, primary care, general practitioners in the private sector and NGOs, in order to support patients in the community through more joined-up systems of care.

For example, given the growing service demand in the KEC, a range of strategies beyond those that are focused purely on the roles of GOPC and Family Medicine are required to help manage and maintain patients in the community and the referrals to and from specialist care. Therefore, leveraging of community partnerships with NGOs and mobilising collaborations with general practitioners in the private sector are opportunities to augment the repertoire of care options available to help manage patients in the community. At the same time, the development of nurse-led and allied health-led services provides further alternatives for the ongoing maintenance of selected patients in the community.

Examples of cross-sector collaborations include enhancing the collaborations between mental health services and private practitioners to support the management of patients with common mental disorders in the community. Another example is the patient empowerment programme provided in collaboration with NGOs, aimed at improving patients' self-management skills and enabling them to be active participants in their care process.

The specific details of the service models recommended by the CWGs are presented in the following chapter on Clinical Service Programmes.

HOSPITAL ROLE DELINEATION

Following on from the overarching strategies above and the service recommendations by the CWGs outlined in the next chapter, as well as building on the service developments that have been formulated to guide the expansion project of UCH, the future role of each hospital in the Cluster has been distilled as delineated below.

United Christian Hospital

The strategies and service directions affirm the role of UCH as the tertiary referral centre of KEC, providing among other services acute, psychiatric and cancer care. Capitalising on the previous UCH CSP, the hospital expansion project will support the development of cancer, ambulatory, rehabilitation and emergency services (CARE), with cancer becoming the flagship service of the Cluster.

Based on the recommendations of the CWGs, complex ultra-major surgeries will be concentrated at UCH. It will also be the main hospital in the Cluster for the provision of PPCI.

Tseung Kwan O Hospital

TKOH will continue as the district general hospital within the Cluster, providing 24-hour A&E and acute services, including acute general surgery. It will also continue to provide secondary care services to the local community. Moreover, leveraging on its strengths, TKOH will develop services with a focus on promoting ambulatory care and expanding its role in the Cluster for high volume day- and short-stay procedures.

At the same time, the hospital has a key role in the overall strategy for the provision of cluster-based time-critical services for life-threatening illnesses, including acute stroke service and PPCI. Similarly, with the emphasis on cancer services as the flagship service of the Cluster, it is anticipated that the provision of cancer services and care at TKOH will be enhanced in collaboration with UCH and according to service demand requirements, thereby supporting more comprehensive and holistic patient care to the local community.

Haven of Hope Hospital

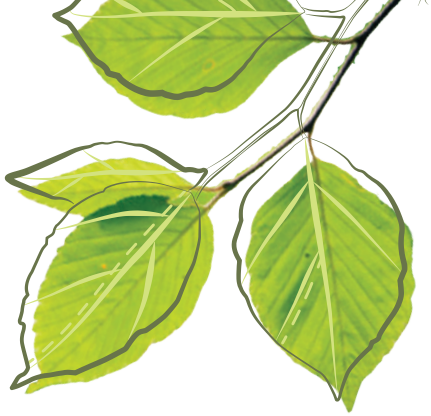
On the other hand, HHH consolidates its role as the main hospital in the Cluster providing extended care, with planning currently underway to increase the capacity of its convalescent / rehabilitation beds, re-provision its infirmary wards, expand its geriatric day hospital service, and set up an integrated carer support centre. Through better cluster-based collaboration, HHH will continue to provide convalescent, rehabilitation and palliative care expertise in the Cluster for more integrated and seamless patient care alongside UCH and TKOH.

SUMMARY

The strategies outlined in this chapter capitalise and build on the strengths of the hospitals in the KEC, with a cluster-wide perspective. Seeking to realign and re-orientate services, the strategies reflect the strong commitment of staff in the Cluster to innovate and improve their services so that they are more attuned to the expanding and evolving needs of patients.

At the same time the strategies form the foundation for developing more collaborative arrangement among the specialties, disciplines and hospitals on a cluster-wide basis, which will optimise the coordination, capacity and clinical expertise along the patient pathway. The aim is to support the delivery of high quality and sustainable care which meets the current and future service needs of the Cluster.

CLINICAL SERVICE PROGRAMMES



This chapter presents the consolidated summaries of the reports from the ten CWGs, which were formed during the development of the KEC CSP to formulate cluster-based proposals for the development of clinical programmes that require multi-specialty / cross-disciplinary collaborations.

The ten CWGs are as follows, and their summaries include the recommended models of care, service recommendations and implementation enablers of the respective clinical service programmes:

1. Ambulatory Services
2. Chronic Disease Management
3. Gastroenterology and Hepatology Services
4. Elderly Services
5. Musculoskeletal Services
6. Cancer Services
7. Critical Care Services
    a. Sub-group on Emergency Percutaneous Coronary Intervention
    b. Sub-group on Emergency Stroke Services
8. Peri-operative Services
9. Obstetrics and Perinatal Services
10. Mental Health Services

The CWG membership, involving a range of professionals, is listed in *Appendix 4*.

The recommendations of the CWGs were based on the guiding principles and with particular attention to how the roles and services at UCH, TKOH and HHH could be better aligned and optimised.

AMBULATORY SERVICES

Co-chairs

Dr C K LAU Consultant (Medicine) / Service Director (Day Medical Centre), TKOH

Dr W L NG Deputy Chief of Service (Medicine & Geriatrics), UCH

Recommended Models of Care

Ambulatory care is increasingly being recognized as a safe and cost-effective alternative to in-patient care. With aging population, increasing burden of chronic diseases, and soaring health care costs, over-reliance on in-patient service is unsustainable in the long run. It is recommended that ambulatory care should be considered for every patient to avoid or shorten unnecessary in-patient stay. This applies to urgent as well as elective cases, and entails the provision of one-stop services, including diagnostics, assessment, treatment, interventions and other patient support services according to a patient's needs and urgency, delivered by a dedicated multi-disciplinary team.

This model requires the input of competent decision makers during the early part of the patient care pathway and prompt access to diagnostic facilities and other supporting services, in order for medical conditions that traditionally require in-patient care to be managed safely and effectively in an ambulatory setting.

Service Recommendations

There are two main categories of ambulatory service for managing different types of cases.

Urgent Ambulatory Service

Urgent ambulatory service caters for patients presenting to AED whose medical conditions are not life-threatening or organ-threatening and have the potential to be resolved within a short time frame. This includes patients with medical problems requiring rapid risk-stratification according to protocols (e.g. chest

pain, suspected deep vein thrombosis, etc.) as well as patients with chronic medical conditions presenting with exacerbation of organ dysfunction (e.g. COPD, heart failure, etc.).

Based on defined care pathways with inclusion and exclusion criteria, suitable patients will be diverted directly from the AED to an ambulatory care setting that is closely linked to the AED and jointly managed by physicians and emergency care physicians. Once there, patients will be evaluated with rapid diagnostic workup and/or other point-of-care examinations, followed by arrangement of therapeutic interventions where appropriate. Close liaison with other relevant specialists and services, such as geriatric services, specialist nursing services (e.g. diabetic care, wound care, community nursing, etc.) and allied health services will help to ensure that a spectrum of appropriate and coordinated services are provided to patients to meet their needs.

The clinical pathways of urgent ambulatory service can be illustrated by the following two examples:

(i) A patient presented to AED with unilateral leg swelling suspected of deep vein

thrombosis will first be assessed by AED doctors to exclude other causes. Point-of-care examination with ultrasound by AED doctors experienced with the technique is performed, and if in doubt, an urgent formal ultrasound is performed at the Radiology department same day or within a short time frame. The patient is also assessed by the physician of the urgent ambulatory care team, and anti-coagulation therapy is commenced and titrated. Patient may require nursing and home support and this can be arranged in a one-stop manner by the ambulatory care team.

(ii) For a patient presented to AED with unilateral undiagnosed pleural effusion, after initial stabilisation, the patient will be seen by the physician of the urgent ambulatory care team. Prompt imaging is arranged and pleural tapping with or without pleural biopsy can be performed in the ambulatory setting. The patient can then be discharged and reviewed later on. In case of malignancy, surgical or oncological services can be arranged, or palliative service is referred where appropriate.

Elective Ambulatory Service

Elective ambulatory service caters for patients whose medical conditions are relatively stable and for which services can be scheduled and planned. Examples include day chemotherapy and blood transfusion. Although the ambulatory services are currently available in UCH and TKOH, there are much room for expansion in terms of their scope and scale. For instance, chest drainage for selected patients with pleural effusion can be performed safely in ambulatory settings. In addition, some parenteral antibiotics requiring multiple daily dosing can be administered through a home infusion therapy system. Hence, elective ambulatory care can also support early patient discharge. For example, patients presented with para-pneumonic effusions or empyema requiring hospital admission for initial stabilisation could be discharged early and have their monitoring and chest drainage carried out in an ambulatory setting.

Implementation Enablers

Short-term

It is recommended that a taskforce should be set up in the KEC to oversee the implementation and development of ambulatory service models. At the same time, the recommended service models will be put forward to the COC in Medicine for deliberation and consensus building at the corporate level.

The plan is to commence in the near time the recommended services on a small scale, with the enhancement of diagnostic facilities. In relation, there is a need to establish cluster-wide clinical pathways with mechanisms for the monitoring of performance and results. Meanwhile, efforts will be put into ensuring that appropriate facilities and setup for the one-stop ambulatory services are incorporated into the UCH expansion project currently underway.

Medium-term

In the medium term within the next two to three years, it is envisaged that the details of a sustainable operational model for ambulatory services will be worked out, together with an expanded list of clinical pathways and referral criteria. Besides, arrangements will be made to put in place the relevant manpower, training and skills required for service delivery.

Long-term

The long-term plan is to integrate ambulatory care into the routine organisation and structure of hospital services, with appropriate funding model and governance structure.

CHRONIC DISEASE MANAGEMENT

Co-chairs

Dr I T LAU Chief of Service (Medicine), TKOH

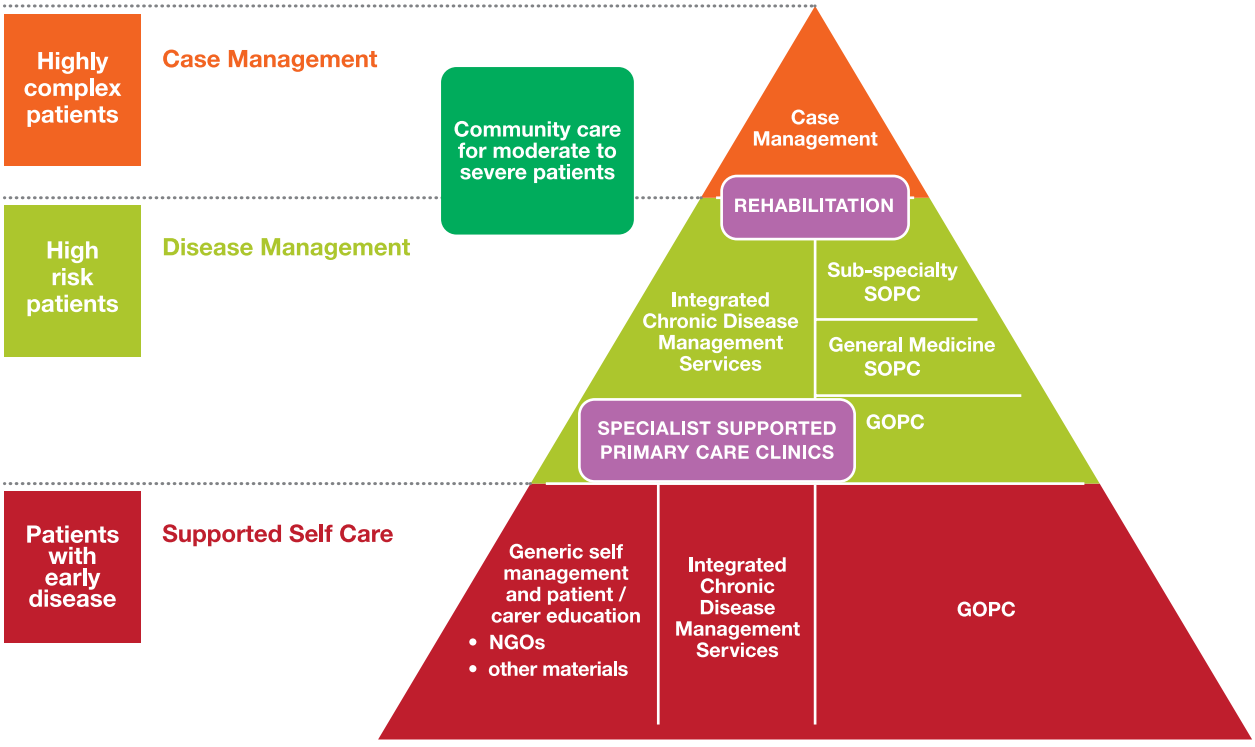
Dr K S CHAN Service Director (Primary & Community Health Care), KEC / Chief of Service (Medicine), HHH

Recommended Models of Care

The model recommended by the CWG aims to address the management of the high volume of chronic medical diseases, based on a tiered approach to the provision of care that is matched to the level of disease complexity and patient need.

Overall, the focus is on supported self-care for the large volume of patients with early, mild and uncomplicated diseases. This is achieved through patient education and empowerment. For patients with moderate disease that require more holistic and structured care, it will involve an integrated disease management approach. Then for the comparatively smaller group of patients with severe impairments arising from complications, care coordination in the form of case management will provide more intensive care. Furthermore, to ensure effective and coordinated care and seamless transitions of patients, a high degree of integration and collaboration among the different services and providers is crucial. The service delivery model is summarised in *Figure 4*.[29]

Figure 4.



[29] Based on the risk stratification triangle for chronic care service delivery, developed by Kaiser Permanente.

Service Recommendations

Self-management Programmes

Patients, their families and carers would be empowered through a range of evidence-based educational programmes and patient information tools that facilitate patient self-management. Courses such as Stanford and Flinders programmes can be provided by NGOs. Likewise, more intensive disease-specific education can be provided by nurses or allied health professionals to support disease control. Electronic and other media can also supplement the range of patient information resources available.

Integrated Chronic Disease Management Services

This is the development of one-stop services for multi-disciplinary management of chronic diseases at or in close proximity to the GOPCs or SOPCs. Patient care can be improved through integrated structured assessment and risk stratification, care planning, and empowerment programmes. The approach will be especially important for the initial intervention of newly diagnosed diseases and the management of uncontrolled diseases or newly developed complications.

Case Management

A dedicated team of medical, nursing and allied health staff should be formed and trained to provide case management for patients with complex diseases, based on the physical-psycho-social needs of the patients.

Interface with other Services

Interfacing with acute care, rehabilitation and community services are important elements in this service model. This is because an efficiently managed acute event followed by the restoration of functional status and holistic community support will help these patients maintain their health in the community.

Management of Diabetes as Illustration

Taking the management of diabetes as an illustration of the service model, the clinical pathway of a diabetic patient is as follows:

- The patient and their family members or carers will be arranged to undergo diabetes education in order to acquire basic knowledge on diabetes self-management, including diabetes diet, medication, glucose monitoring and lifestyle modification. This can be delivered through the Patient Empowerment Programme (PEP) run by NGOs.

- The patient will also go through structured complication assessment, risk stratification and targeted interventions carried out by a multi-disciplinary team comprising nurses and allied health professionals under the Risk Assessment and Management Programme (RAMP). The aim is to identify early complications and delay disease progression.

- For patients with complications arising from poor glycaemic control or comorbidity, referral will be made to specialist care or even hospitalised treatment. When these patients are discharged from the hospital, they will be provided with telephone support through the Community Health Call Centre (CHCC). Trained nurses will contact the patients to monitor their conditions as well as link them to ambulatory and community care services such as day rehabilitation service and CNS where required.

- For highly complex cases such as those with severe complications, a case manager will be assigned to provide intensive support for the patients and connect them with the required treatment and discharge support.

A better interface of primary care, specialist care and community care services will be required for the service model to run smoothly. In this regard, it is recommended that a diabetic centre be set up to facilitate the clinical governance and implementation of the service model.

Implementation Enablers

It is recommended that a taskforce be formed in the KEC to oversee the implementation and development of the chronic disease management model. At the same time, considerations should be given to the use of ICT to support clinical decision making, care planning and facilitate communication across care teams. Clear guidelines should also be developed to guide the clinical management of the different stages of diseases, risk stratification and triage of patients to different care settings.

GASTROENTEROLOGY AND HEPATOLOGY SERVICES

Co-chairs

Dr Steven TSANG Consultant (Medicine) / Service Director (Combined Endoscopy Unit), TKOH

Dr T P FUNG Consultant (Surgery) / Director (Endoscopy Centre), UCH

Recommended Models of Care

To tackle the issues of growing hepatitis caseloads and access to endoscopy services, the focus is on strengthening joint collaborations between primary, secondary and tertiary care relating to GI and hepatology services in the Cluster, especially between UCH and TKOH. A key feature of the model is maximising access and service capacity through a coordinated triage / booking scheme for primary and secondary care based on pre-defined pathways.

Service Recommendations

Gastroenterology

For colonoscopy and upper GI investigations, service capacity can be enhanced through joint collaboration between surgeons and GI physicians in the KEC to streamline the endoscopy list and optimise the utilisation of endoscopy and ultrasound facilities. At the same time, development of well-defined clinical pathways can help to ensure the appropriateness of new referrals and reduce unnecessary repeat referrals for investigation. In addition, protocol-driven open access of primary care physicians to endoscopy and upper GI investigations could help reduce new case referrals to specialist clinics and improve service efficiency.

Hepatology Service

An integrated hepatitis B service is recommended, in which patients are assessed and triaged to the appropriate level of care according to their disease severity, based on agreed referral and management guidelines. Key components of the services are:

- ***Primary Care (GOPC / Family Medicine)***
  Managing hepatitis B patients in an inactive carrier state or immuno-tolerant stage, the main features of care at the primary care level include regular surveillance and monitoring, with enhanced access to investigations and fast-track referral to secondary or tertiary care, based on well-defined and agreed referral and monitoring guidelines.

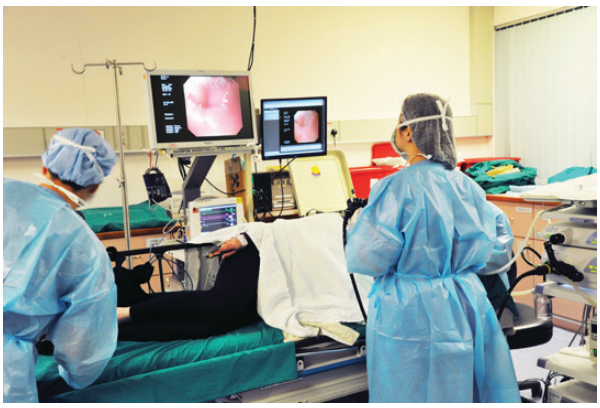
- ***Secondary Care***
  The key feature is a multi-disciplinary integrated assessment clinic for the triage of hepatitis B patients to the appropriate level of care. The secondary service would focus on supporting patients with chronic hepatitis or cirrhosis, through individual and group consultations, counselling, education, adherence support to drug therapy and monitoring.

The multi-disciplinary service, led by hepatologists, is geared towards a one-stop model to better meet the needs of patients. Depending on patients' disease severity they can be stepped-up to tertiary care or stepped-down to primary care for ongoing management.

- ***Tertiary Care***
  For patients with hepatocellular carcinoma or decompensated liver disease, a multi-disciplinary team involving hepatobiliary and pancreatic surgeons, GI physicians and hepatologists, diagnostic and interventional radiologists, oncologists and pathologists is proposed to develop individualised management plans. These could include surgical treatment with curative intent, palliative treatment or referral to transplant services. Currently weekly case meetings take place at UCH.

Implementation Enablers

Pre-defined patient management pathways for hepatitis B patients will need to be developed to facilitate the recommended hepatology service model. As for gastroenterology, enhanced endoscopist collaborations between surgeons and GI physicians are needed to streamline the endoscopy list, and to promote inter-hospital collaboration for better management of the long waiting list if it cannot be tackled by one hospital alone.



ELDERLY SERVICES

Co-chairs

Dr M F LEUNG Clinical Stream Coordinator (Medicine), KEC / Consultant (Medicine & Geriatrics), UCH / Service Director (Community Service and Planning), UCH

Dr T Y CHUI Former Hospital Chief Executive, HHH

Recommended Models of Care

With anticipation that the majority of patients served by the Cluster in the future will be elderly people, the recommendation is to develop elderly-focused services across the continuum of care, geared to supporting health maintenance and independence within the community.

Specifically, elderly-orientated services will span the different stages of care, from primary care to EOL care and across different settings (e.g. home care and hospital care). The intensity of care provided should be matched to patients' needs and will involve early assessment, intervention, care management to discharge planning and community support. Building on the concept of one-stop service, a comprehensive medical care model can be developed for managing older patients, particularly in the management of chronic diseases for elderly patients in order to reduce the need for multiple patient visits and reserving specialists' time for complex medical care. For example, an elderly patient with concurrent diabetes, hypertension, ischaemic heart disease and osteoporosis can be managed by an internal medicine specialist or geriatrician without the need to attend other specialist clinic sessions.

Service Recommendations

Overall, UCH will further consolidate its elderly services, extending geriatric specialist collaborations across other areas of hospital service. On the other hand, it is recommended for TKOH to significantly enhance its elderly medical services to meet the needs of the ageing Sai Kung district.

Primary and Preventative Care

Promoting health, reducing morbidity and supporting disease maintenance will help to reduce the reliance of elderly patients on hospital-based services and support them in the community. Enhancing the capacity of GOPC, Family Medicine private medical practitioners and development of community health centres are ways to improve the support of early chronic disease management for elderly patients, which also includes risk identification and intervention for falls prevention, medication management, cognitive assessment and psycho-social support.

Emergency Care

For frail elderly patients attending the AED, a geriatrician-led rapid assessment and triage team can provide a consultative service for timely assessment, care planning and post discharge support, so as to reduce unnecessary hospital admission. Accordingly, the presence of an assessment and planning unit can provide rapid multi-disciplinary assessment of elderly patients with fast-track investigations and early definitive care to support return to community.

In-patient Care

Elderly patients requiring hospitalisation should be managed with an aim for discharge as early as practicable to avoid the development of hospital acquired complications. In this regard, enhanced coordination by geriatric discharge planning coordinators, coupled with the Integrated Care Model, community nursing service and virtual ward can support the discharge of elderly patients at high risk of hospital readmissions. The Integrated Care Model is explained in further details at the end of this section. Facilitating the early discharge of elderly patients also requires the concomitant development of protocols to ensure medication reconciliation on discharge, rehabilitative service arrangements and guidelines for selecting cases that require continued management in extended care settings.

Inter-departmental Collaborations

Strengthening inter-departmental collaborations will enhance the provision of more comprehensive and coordinated elderly care especially for high risk elderly patients, addressing the different and often multiple needs of elderly patients. Proposed examples include joint care for orthopaedic-geriatric fracture, one-stop multi-disciplinary pre-surgical intervention assessment service and combined geriatric-oncology service. Moreover, with delirium being a common acute presentation or complication of elderly in-patient care which often results in prolonged hospitalisation, there is urgency in establishing guidelines for prevention, surveillance and management of delirium through joint efforts by geriatricians and psycho-geriatricians.

Community Care

Community resources should be mobilised as much as possible to support elderly patients, their families and carers, to help maintain health and prevent functional deterioration, particularly for high risk elderly discharged from hospital. This includes enhancing partnerships with NGOs and volunteers and the provision of rapid access multi-disciplinary clinics for common elderly problems, such as falls prevention and memory clinics. These will help to support elderly patients attending the AED or Community Health Centres. On the other hand, further strengthening the CGAT service will also enhance hospital avoidance strategies for the elderly living in residential care homes for the elderly (RCHEs).

End-of-life Care

Dignity at the end stage of life has often been neglected in the past. Provision should be given to support quality EOL care to terminally ill elderly patients living in the community or RCHEs, which includes advanced care planning, symptom control, and psycho-social support to patients and their caregivers.

Integrated Care Model for High Risk Elderly Patients

The Integrated Care Model aims at minimising the need of high risk elderly patients for hospital readmissions through a proactive and structured approach that involves strengthening multi-disciplinary integrated care and collaboration with community partners. Key components of the model are as follows:

- Early comprehensive assessment of elderly patients admitted to Medical Ward is carried out by designated staff to identify their care and social support needs. High risk patients are identified through automatically generated lists of elderly patients who are likely to have unplanned readmission based on the Hospital Admission Risk Reduction Program for the Elderly (HARRPE) risk prediction score. The designated staff will then perform early discharge planning and formulate individualised care plans for the high risk elderly patients.

- For patients suffering from functional decline (e.g. as a result of stroke or fracture) and in need of more intensive rehabilitation and comprehensive geriatric care, they may be referred to the Geriatric Day Hospitals. On the other hand, for those patients who require continual intensive rehabilitation and care at home after discharge, community-based allied health and nursing services will be delivered based on a case management approach. If required, home support services delivered by NGOs will also be arranged, such as personal care, home-making, transportation, “elder sitter” services, etc.

- For patients living in RCHEs who are frail and at high risk of unplanned readmission, the CGATs will deliver to them outreach services of comprehensive multi-disciplinary care. CGATs will also provide training and support to the old age home staff to enhance their skills in taking care of the elderly residents.

- In addition, the high risk elderly patients are provided with telephone support through the CHCC. Trained nurses will contact the patients to monitor their conditions as well as link them to ambulatory and community care services where required.

Implementation Enablers

The CWG has proposed the formation of inter-departmental work groups separately in UCH, TKOH and HHH to plan the roll-out of the service recommendations and develop protocol-driven care pathways, algorithms and referral criteria for elderly services.

Moreover, it is important to enhance the training and skills of healthcare professionals in the care of elderly patients so that age appropriate care could be provided. At the same time, the physical capacity and elderly-friendly environments of facilities in the KEC will need to be enhanced in order to support the provision of a comprehensive elderly service.

MUSCULOSKELETAL SERVICES

Co-chairs

Dr C W CHAN Chief of Service (Orthopaedic & Traumatology), UCH

Dr C W YIM Associate Consultant (Medicine), TKOH

Recommended Models of Care

The key issue of musculoskeletal services is to tackle the high volume workload, inefficient coordination of disease management in a multi-disciplinary setting, inadequate rehabilitation bed and suboptimal utilisation of community resources. Using inflammatory arthritis as an example, the recommended model for the management of musculoskeletal illnesses is the re-organisation of care to provide cross-specialty and multi-disciplinary care for coordinated patient assessment and referral, coupled with integrated care pathways focusing mainly on ambulatory care. To improve musculoskeletal rehabilitation, a seamless service is suggested, extending from the pre-admission phase through to community to address the bio-psycho-social needs of patients.

Service Recommendations

A coordinated referral system together with collaborative disease-specific pathways will bridge the current issues of inefficient triage workflow, long waiting time, patients making multiple visits, and suboptimal utilisation of community resources.

Coordinated Assessment and Referral Triage (CART)

A combined team of doctors from different specialties, nurses and allied health professionals can be formed to carry out coordinated assessment and triage of referrals. Based on guidelines and protocols, referrals from AED, private practitioners and SOPDs can be rapidly screened, with initial assessment, investigations and symptom relief therapy provided as required. This will hasten the process and reduce the waiting time to treatment. The same protocols can also be used at the primary care level to enhance its gate-keeping role. Patients with diseases requiring early specific treatments, such as rheumatoid arthritis, will be directly allocated priority appointments to specialist care via the disease-specific integrated pathways (DIP).

Disease-specific Integrated Pathways

The model of DIP involves providing a one-stop service that includes treatment formulation, disease education, joint protection, and psycho-social counseling in an ambulatory setting. Both group and individual therapies may be offered to facilitate patient empowerment, tailored to specific needs. On-site communication will enhance decision-making for complex procedures among the various healthcare professionals involved. Subsequently, the patient will follow agreed treatments coordinated by a case manager. The pathways facilitate early disease control, prevention of damage, restoration of function, and return of patients to the community.

Positive experience in DIP of rheumatoid arthritis has been verified. The CART and DIP service models can be adapted to common musculoskeletal conditions such as inflammatory arthritis, back pain, neck pain and degeneration.

Musculoskeletal (Orthopaedic) Rehabilitation

The recommendation is for enhancing multi-disciplinary collaborations for more seamless care.

- ***In-patient Care***

  Multi-disciplinary cluster-based teams consisting of rehabilitation specialists, nurses, physiotherapists, occupational therapists, prosthetists, orthotists, pain specialists, medical social workers and clinical psychologists will support more joined-up and holistic care, spanning pre-operative assessment, through to early in-patient rehabilitation and discharge. At the same time, a case management approach can facilitate care coordination and assessment. Protocol-driven care pathways can support the care and discharge planning for patients with common conditions, while case conference will be held for the review and formulation of care and discharge plans for patients with less common conditions.

- ***Community Services***

  The scope of outreach services can be augmented to help reduce admissions, shorten lengths of stay and reduce the need for clinic visits. Problems like pressure sores, ischaemic feet, degenerative joints and osteoporotic collapse can be managed in the comfort of the patient's home.

  Furthermore, telemedicine can complement outreach services through linkages to hospital specialists. Besides, a better use of community resources through liaison with NGOs and other community partners will support the transition of patients back to the community.

Implementation Enablers

Short to Medium-term

It is recommended that a cluster-based musculoskeletal team be established in the Cluster along with the development of clinical pathways and protocols for establishing the CART and DIP. In support, efforts should be put into improving access to diagnostics and imaging facilities.

Meanwhile, to cope with the increasing demand, service changes are needed, which may include: weekend in-patient physiotherapy; half-day instead of full-day geriatric day hospital sessions to serve more patients; and evening services to cater for specific patient groups, such as those with daytime jobs. There is also a need to enhance supporting services, including the development of musculoskeletal ultrasonography and image-guided injection in KEC, and increasing the capacity of non-emergency ambulance transfer service (NEATS).

Long-term

There should be adequate space for musculoskeletal services in the UCH expansion project and more rehabilitation beds within the Cluster in the future. In particular, more musculoskeletal rehabilitation beds should be incorporated in the planned or future development projects in HHH and TKOH given the high demand and the fact that such beds in KEC are relatively less compared to other clusters.

CANCER SERVICES

Chair

Dr L C CHONG Clinical Stream Coordinator (Surgery), KEC / Chief of Service (Surgery), TKOH

Recommended Models of Care

An integrated model of cancer services is recommended by the CWG for the whole Cluster. The comprehensive range of cancer services will be provided by multi-disciplinary teams working across the three hospitals in KEC and in partnership with NGOs. A cluster-based arrangement will allow for cancer surgery and chemotherapy to be performed at both UCH and TKOH, thereby providing for more localised and patient-centred care. As for palliative care, the three hospitals in the Cluster will work collaboratively to provide a seamless service to patients and their families / carers.

The key to the recommended model is the rapid assessment of patients with suspected cancer, coupled with integrated one-stop cross-specialty holistic care planning for confirmed cancer patients. A seamless provision of diagnostic facilities including endoscopic, radiological and pathology service will support timely diagnosis and treatment planning for cancer patients.

Service Recommendations

Rapid Sequence Triage for Unconfirmed Cancer Patients

Patients suspected to have cancer will be triaged through standardised protocol-driven assessment and coordinated referral to facilitate clinician-led rapid sequence triage. High risk patients will be provided with priority access to diagnostic investigations and timely definitive treatment.

Integrated Service with Multi-disciplinary Approach

The CWG recommends an integrated collaborative clinic to expedite treatment plan for patients diagnosed with common cancers. The aim is to provide a one-stop consultation by surgeons, medical oncologists and clinical oncologists. For complex cases, case managers will be arranged to coordinate their multi-disciplinary care according to personalised care plans.

Cancer Surgery

Utilisation of both UCH and TKOH to provide operations for patients with common cancers will maximise the use of resources and decrease treatment lag time. For less common cancers with an average caseload of 0.5 to 1 new case per week in the Cluster, surgeries should be centralised at one hospital to concentrate the expertise. On the other hand, for a patient with rare or uncommon cancers, treatment shall be provided by cluster-based surgical team at either UCH or TKOH depending on which is nearer to the resident district of the patient.

To improve the functional outcome of cancer patients, minimal invasive organ preserving surgery with strong pathology support is highly recommended. The development in the combination of endoscopic, laparoscopic, robotic and natural orifice transluminal surgery will decrease operative trauma and improve patients' quality of life. The cost of these tools has been falling rapidly, so they can be considered the mainstay of treatment in the coming years.

Radiotherapy

With the development of a new cancer centre in the UCH expansion project, a centralised radiation therapy service in UCH will be able to meet the existing service demand for the whole Cluster. On the other hand, brachytherapy will still require cross-cluster support from the KCC. Depending on the future growth in service demand, additional radiotherapy facilities may need to be contemplated.

Chemotherapy

A distributed model to provide service close to the patients' resident district is recommended for chemotherapy services. Reverse isolation facilities and day chemotherapy services should be provided at both UCH and TKOH. Autologous marrow transplant, on the other hand, should be centralised in UCH. Medical oncologists, clinical oncologists, pathologists and pharmacists should jointly develop shared protocols to standardise the quality of service.

Supportive Oncology and Survivorship, Post-treatment Monitoring and Palliative Care

A holistic approach to supportive oncology and survivorship is suggested, and to be backed up by cluster-based extended-care services. Post-treatment monitoring of the efficacy of therapy and check-up for relapse should be protocol-driven. To streamline the palliative care service, in-patient care should be localised at UCH and HHH, with a strong consultation palliative care service in TKOH. This should be a collaborative effort from the clinical oncologists, palliative care physicians and pain specialists.

Implementation Enablers

Leadership and Coordination

To align the cancer service and to achieve collaborations amongst various disciplines, dedicated clinical leaders are required. Establishment of a clinical director for the commissioning and coordination of clinical oncology will facilitate this work.

Staff Arrangement

Mobilisation or rotation of doctors to work for more than one hospital within the Cluster is a key success factor in the integrated service model. The arrangement can improve communication, align clinical practices, share expertise and provide opportunities for sub-specialisation in organ-specific cancer therapy. This will also maximise the utilisation of physical and human resources and bring convenience to cancer patients.

Case Managers

As cancer care is usually prolonged and frequently requires multiple modalities of investigations and treatments, case managers are important to provide personalised and coordinated care for complex cases.

Hardware

Access to the latest diagnostics and therapeutic interventions will support the delivery of contemporary cancer care. For example, by providing the right equipment, minimally invasive surgery significantly improves clinical outcome and patient experience. Service utilisation should be monitored to review the need for the addition of diagnostic equipment.

CRITICAL CARE SERVICES

Co-chairs

Dr K I LAW Chief of Service (Intensive Care Unit), UCH

Dr W S NG Consultant (Accident & Emergency), TKOH

Recommended Models of Care

The model proposed is an inter-cluster and cluster-based collaboration whereby tertiary emergency services are concentrated at one location. Other key elements to the model are readily available: critical care facilities either at the AED or closely linked to AED with dedicated transfer services.

Service Recommendations

Emergency Critical Care

Modern emergency critical care services have evolved into a sub-specialty in emergency medicine, involving sophisticated interventions and time-critical care. In view of this, the CWG has suggested the need to further define the role and scope of services in the context of the development of emergency critical care.

Special Care Beds

Not all patients requiring intensive monitoring are suitable to be admitted to the ICU or are necessary to be cared for at the ICU level. The establishment of special care beds could bridge the gap between adult ICU and general wards. The special care beds should be under the care of a professional nursing team under the management of ICU department. This will ensure the quality of care, experience acquisition, administrative efficiency and proper staff training. Patients in special care beds will be under the care of the respective parent specialty teams, with regular input and support from the ICU team if necessary. Good connectivity of the service to AED, adult ICU and diagnostics will be important.

Establishment of an ICU Department at TKOH

As the ICU capacity of TKOH increases, there should be plans to develop a separate department for intensive care services at the hospital.

Inter-cluster and Intra-cluster Collaboration

With the concentration of certain services in hospitals outside of the Cluster, such as cardiothoracic surgery, neurosurgery and trauma services, the CWG has recommended the development of a hospital-based central transfer team to provide professional and safe transport of critical care patients who need sub-specialty, tertiary or quaternary services that are not available in the KEC. In addition, the transfer team will also support intra-cluster hospital transfers according to the service provision of the two acute hospitals. The hospital-based transfer team will be composed of designated medical and nursing staff for round-the-clock operation.

Implementation Enablers

The CWG has proposed the formation of a taskforce in the KEC to oversee the planning, implementation and review of the critical care service recommendations.

In addition, it is highlighted that the size and design of the two AEDs should be of contemporary standards with adequate infection control facilities. This is an important consideration for the UCH expansion project. Besides, advanced technologies in critical care

services that are not currently available in KEC, such as extracorporeal membrane oxygenation (ECMO), is recommended to be developed in at least one of the ICUs in the Cluster in order to support the provision of high standard critical care services.

Sub-group on Emergency Percutaneous Coronary Intervention Services

Group Leader

Dr C K CHAN Consultant (Medicine & Geriatrics), UCH

Recommended Models of Care

In line with the recommendations on critical care services, the sub-group proposes a cluster-based service delivery model for PPCI so as to enhance access to this treatment for patients presenting with STEMI. The ultimate aim is for all STEMI patients in the KEC to have access to PPCI on a 24-hour basis through a networking arrangement.

Service Recommendations

Organisation of PPCI Service in the KEC

With UCH currently operating an extended-hour PPCI service, as well as the planned expansion project of UCH increasing the number of its cardiac catheterisation laboratories (CCL) from one to two, the recommendation is for UCH to remain as the main site providing PPCI in the Cluster. Protocol-based primary ambulance diversion, as well as secondary hospital transfer where necessary, is proposed to support the arrangement.

On the other hand, with TKOH planned to operate a 0.5 CCL equivalent, for patients presenting with STEMI at its AED or who develop STEMI during their in-patient stay, they should preferably be managed at TKOH to reduce their time to treatment. This would require assessment of the availability and feasibility of PPCI at TKOH, with secondary transfer to UCH during its PPCI service hours, if necessary.

In order to support the above arrangement and for sharing of expertise, the cardiac teams at UCH and TKOH will form a combined team to make up the call-roster, so as to manage the demand and facilitate more efficient use of facilities.

With regard to the development of 24-hour PPCI, it will be in accordance with the strategies and directions laid out in the HA Strategic Service Framework for Coronary Heart Disease, which points towards setting up designated centres for the provision of 24-hour PPCI service through a networking system to be deliberated at the corporate level. Staff in the KEC are ready to participate in the future networking arrangements and contribute to the provision of a 24-hour PPCI service to the local community.

Primary Ambulance Diversion

Since timely reperfusion is crucial to improving the clinical outcomes of STEMI patients, a protocol-driven primary ambulance diversion strategy is proposed to facilitate the transport of patients directly to UCH for PPCI. This will be supported by pre-hospital ambulance electrocardiagram (ECG), with transmission of the ECG for interpretation by a designated PPCI coordinator, who could divert the ambulance and activate a one-stop call system to simultaneously mobilise all necessary staff to prepare for the patient's arrival and direct transfer to the CCL for treatment.

Secondary Transfers

In those cases where STEMI patients need to be transferred between hospitals in the KEC, or outside of the Cluster for care, a designated central transfer team is proposed to be established in the Cluster, as outlined in the service recommendations for critical care services.

Development of Rehabilitation and Support Services

To enhance the outcomes of STEMI patients, concurrent strengthening of services along the patient pathway is recommended, such as enhancing and reorganising in-patient and out-patient cardiac rehabilitation as a cluster-based service to optimise recovery and functionality.

Implementation Enablers

The inclusion of a second CCL in the UCH expansion project is crucial for the service development. It is also recommended that the 0.5 CCL at TKOH be maintained and preferably upgraded to a full CCL to help cater for STEMI patients at the hospital. Besides, there is a need to enhance the Cardiac Care Unit and ICU / High Dependency Unit (HDU) services in the Cluster to support the service.

With regard to protocol-driven primary ambulance diversion, secondary transfers and a PPCI call activation system, the logistics and arrangements would require deliberations with the Fire Services Department, as well as agreement and alignment between the COC in A&E and Central Committee on Cardiac Service. This will also need to take into account the directions laid out in the HA Strategic Service Framework for Coronary Heart Disease.

Sub-group on Emergency Stroke Services

Group Leader

Dr P W NG Chief of Service (Medicine & Geriatrics), UCH

Recommended Model of Care

The sub-group recommends an integrated multi-disciplinary 24-hour acute stroke service in the KEC, involving a collaborative cluster-based secondary care service between UCH and TKOH, with designated stroke teams and acute stroke unit (ASU), and with neurosurgical support provided by the KCC. The strengthening of services across the continuum of care is also emphasised, such as rehabilitation and secondary prevention, in order to optimise patient recovery, reduce complications and support reintegration into the community.

Service Recommendations

A Cluster-based Acute Stroke Service

The recommendation is for protocol-driven collaborative arrangements between the clinical departments of UCH and TKOH for the provision of an acute stroke service that provides 24-hour access to thrombolytic therapy for appropriate acute ischaemic stroke patients. In addition, neurosurgical support from the KCC will facilitate the provision of endovascular and neuro-interventional services. On the other hand, for patients requiring tertiary services not available in the KEC, a designated central transfer team will support safe and efficient transfer according to pre-established referral and transfer management guidelines.

The focus is on the rapid access to diagnostics,

assessment and treatment, which are essential during the initial phase of stroke to optimise patient outcomes. Such requirements should preferably be supported in the pre-hospital phase with primary diversion, if available.

Designated Stroke Team

A designated multi-disciplinary stroke team with input from emergency physicians, neurologists, neurosurgeons, neuro-radiologists, intensivists, stroke nurses and allied health professionals will be responsible for providing care, based on well-defined clinical pathways and protocols.

Early identification of stroke and ruling out of stroke mimics are essential to streamlining patients in the AED. This includes designated staff in the AED with expertise in stroke screening and assessment, according to protocol. To facilitate, there should be arrangements with Radiology for ultra-urgent computed tomography (CT) scans of potential patients, together with early notification of the stroke team, including the neurologist for urgent patient assessment and subsequent management. For those patients with haemorrhagic stroke, there should be direct communication with neurosurgeons from KCC for patient management.

To support a 24-hour acute stroke service, there should be cross-hospital neurologist coverage and a cluster-based neurologist call-roster, with telemedicine support for offsite stroke thrombolysis calls. There is also a need to develop stroke nurses to provide on-site support to physicians for thrombolysis calls, screening and assessment, monitoring, and stroke care.

Acute Stroke Unit

An ASU is recommended to provide specialist neurological services for patients with new or suspected stroke, based on standardised integrated stroke pathways. A multi-disciplinary ASU team including neurologists, stroke nurses, physiotherapists, occupational therapists, speech therapists, dietitians, social workers and clinical psychologists will provide comprehensive and coordinated patient management to enhance patient recovery. This also involves close collaboration with neurosurgeons and critical care medicine physicians to cover the additional needs of some patients. In particular, special care beds in the ASU will support close monitoring and management of patients after receiving thrombolytic therapy. Furthermore, with the advancements in stroke care and neuro-intervention / endovascular therapies, there is a need to strengthen neuro-critical care provided by the ICU team.

Implementation Enablers

Within the ASU, it is important to set up special care beds for the provision of acute thrombolytic therapy and close monitoring of critically ill stroke patients, as well as to incorporate rehabilitation areas for early initiation of neuro-rehabilitation.

Access to advanced facilities and technology is also important to support time-critical care. For example, imaging facilities such as CT and MRI should be available close to the AED for providing non-invasive intracranial vascular study in a timely manner. IT support in the form of telemedicine and tele-radiology can also facilitate the implementation of 24-hour thrombolytic care for ischaemic stroke patients.

Enhanced training of expertise in medical, nursing and paramedical professionals is important to sustain and improve the services to acute stroke patients.

PERI-OPERATIVE SERVICES

Co-chairs

Dr Gwen FOK Chief of Service (Anaesthesiology, Pain Management & Operating Services), UCH

Dr K M LAM Consultant (Surgery), TKOH

Recommended Models of Care

The CWG recommends the reorganisation and rationalisation of the peri-operative service in the KEC to a single multi-disciplinary cluster-based service, in order to align the utilisation of OTs at UCH and TKOH. The peri-operative service will cover the whole patient journey, from the point at which a decision for surgery has been made through to when a patient has recovered and rehabilitated from the surgery. Having a single cluster-based service will ensure that processes are well-integrated and coordinated, with protocols developed in a cohesive manner.

Leveraging the strengths of the two acute hospitals, UCH will focus on surgeries requiring longer post-operative recovery or the use of hybrid theatres, whereas TKOH will concentrate on day, short-stay or fast-track surgeries.

Service Recommendations

A cluster-based multi-disciplinary and integrated approach, supported by effective corporate and clinical governance is essential to the proposed model. This will require development of clinical pathways and algorithms covering the whole patient journey. In connection, one-stop nurse-led and protocol-driven POCs will be established at UCH and TKOH to coordinate and facilitate patient care. Also, with complex ultra-major surgery concentrated at UCH while TKOH serving as the hospital for day and short-stay surgery, redirection of patients from one hospital to the other will occur. Good patient engagement and education will therefore support the arrangements.

Peri-operative Centre

The POCs at UCH and TKOH will be the coordinating hubs of the peri-operative service. Providing pre-admission services, the POCs will optimise a patient's medical condition before surgery and provide nursing and allied health preparation and discharge planning. This includes nurse-led protocol-driven triage, assessment and planning with referrals to (i) multi-disciplinary pre-admission clinic with anaesthesiologists, physicians and intensivists, (ii) sub-specialty nursing, (iii) allied health professionals, and (iv) discharge planning teams with the involvement of social workers, community nurses and elderly services.

Moreover the POCs will also be responsible for (i) operating list management supported by a centralised booking system, (ii) admission and immediate pre-operative preparation for day of surgery admissions (DOSA), (iii) post-operative protocol-driven care initiated in the post-anaesthetic recovery unit, with discharge or transfer of care to in-patient teams, (iv) post-

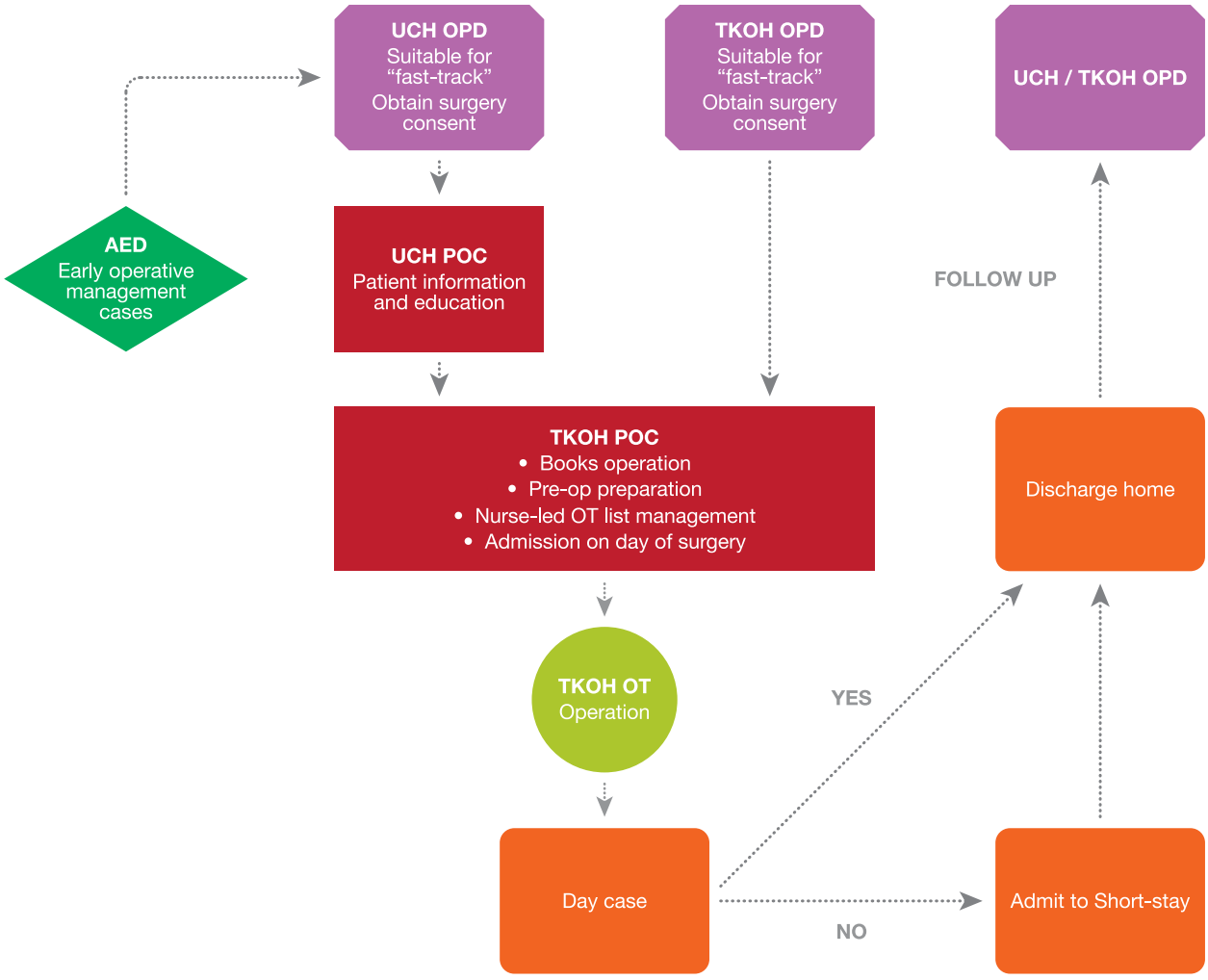
discharge follow-up by telephone, and (v) patient and carer education.

Fast Track Surgery

Building on the fast track surgery programme at TKOH, a triage system enables identification of high volume / relatively non-complex surgeries suitable for day or short-stay surgery. OT efficiency is enhanced by scheduling the same procedures on one OT list, booking by both hospitals' teams, and with DOSA and coordination of care through the POC of the receiving hospital, including nurse management of the OT list. The model can also be adapted for patients presenting to the AED with conditions requiring early operative management.

The process is illustrated in the diagram below *(Figure 5)*. The OT lists are open for booking by the teams from both hospitals. Consent is obtained by the booking surgeon, while the POC of the receiving hospital will coordinate and facilitate the rest of the process.
This model may be used for ambulatory patients who present themselves at AED with conditions that require early operative management, such as upper limb fractures. Their point of entry would be the outpatient department (OPD).

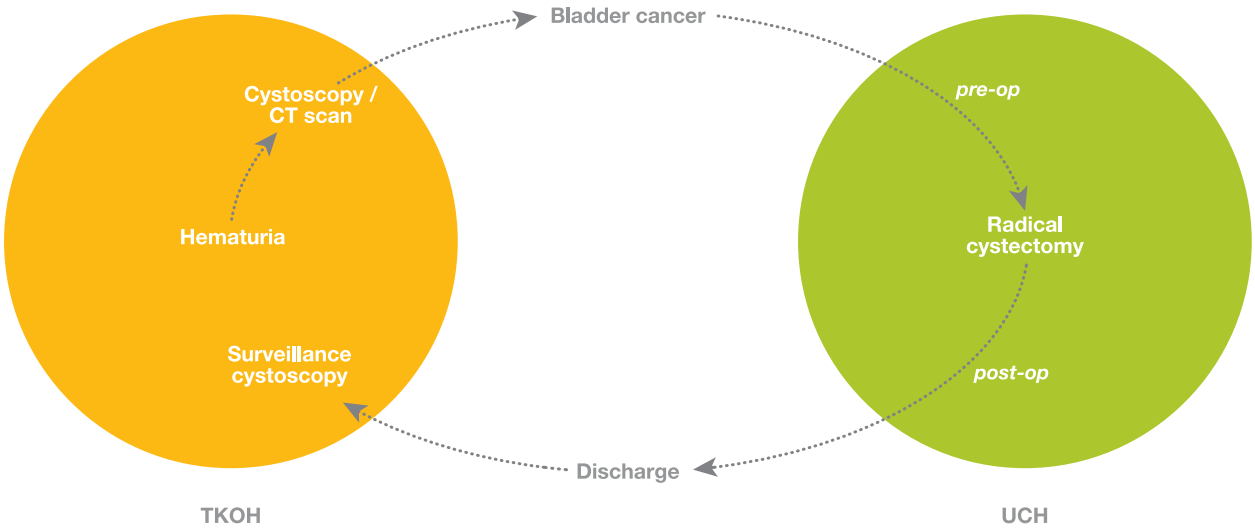
Figure 5.



Cluster-team Service

As some diseases require complex diagnostic procedures and a multi-disciplinary approach, initial diagnosis and workup may start in one hospital, but with further investigations and surgery carried out at the other. Hence, there should be a cluster-team approach for surgery and post-operative care, with booking of surgery following the fast track model. Examples would include urology, endocrine, vascular and joint replacement surgeries. Illustrated in *Figure 6* is the model that the Urology team employs for their complex surgeries, such as radical cystectomy for bladder cancer.

Figure 6.



Post-anaesthetic Care Unit (PACU)

Since more ultra-major / complex cases will be carried out at UCH, there will be an increase in demand for critical care at the hospital. A protocol driven PACU specifically for post-operative elective surgery patients requiring mainly close monitoring will help manage utilisation of ICU / HDU beds. Coupled with an elective critical care bed booking system, this would maximise efficient and effective use of critical care beds and OT sessions.

Implementation Enablers

Cluster guidelines, protocol-driven pathways and structured multi-disciplinary care plans, coupled with patient education and information, need to be developed. At the same time, nurse management of the OT list will facilitate the booking and scheduling of cases, along with coordination for critical care beds if required. IT support is essential for the electronic booking and patient management system.

For service roll-out, in the short-term, commissioning of the OTs in the Ambulatory Centre Block of TKOH will facilitate the addition of day / short-stay surgeries, as well as the relocation of OT sessions from UCH to TKOH, which will prepare for the addition of general anaesthesia sessions at UCH. In the medium-term the recommendation is for addition of elective and emergency OT sessions at both UCH and TKOH with the accompanying requirements for the whole peri-operative service programme. Longer-term will see the completion of the UCH expansion project with state-of-the-art OTs, including hybrid OTs, and introduction of new theatre session capacity.

Finally, expansion / upgrade of the Theatre Sterile Supply Service Department at TKOH is proposed, so as to meet the increased demands from the expanded service.

OBSTETRICS AND PERINATAL SERVICES

Co-chairs

Dr H B CHAN Chief of Service (Paediatrics & Adolescent Medical) / Service Director (Information Technology & Telecommunications), UCH

Dr William TO Chief of Service (Obstetric & Gynaecology), UCH & TKOH

Recommended Models of Care

Safe and sustainable service is considered the pre-requisite to any future obstetrics and perinatal service arrangement in KEC. Taking into account projected service demand and the anticipated effects of the HKCH and possible development of a new acute hospital at Kai Tak, the consensus is for maintaining a single maternal and neonatal unit in the Cluster, with multi-disciplinary support.

In this regard, the maternal and neonatal unit will remain at UCH before the service is available in the new acute hospital at Kai Tak that may be developed. Should the development go ahead for the new hospital, a review of possible relocation of the unit to TKOH is recommended prior to the service commencement of the new hospital. Also, there will be close collaboration with the HKCH and if developed, the new acute hospital at Kai Tak in the management of complicated pregnancies.

Service Recommendations

Obstetrics Service

The recommendation is for one labour ward and delivery centre in the KEC, within a baby-friendly hospital. There should be multi-disciplinary support for a comprehensive, safe and seamless obstetrics service. This includes obstetrics, anaesthesia, internal medicine, radiology, dietetics, physiotherapy, emergency laboratory services, and blood bank.

Advanced facilities are also important, for example hybrid OTs for interventional radiology to cater for conditions such as severe obstetric haemorrhage. The hybrid OTs will allow interventional radiology such as uterine arterial embolisation to be carried out in an OT setting instead of in the radiology department, so that emergency surgery could take place immediately if needed. In addition, rapid access to obstetric intensive care and the expertise of vascular surgeons / haematologists is crucial for the management of obstetric emergencies.

On the other hand, if a new acute hospital were to be developed at Kai Tak, for high-risk pregnancies in which the newborns are expected to require immediate or early neonatal surgical or cardiac interventions, the cases should be referred to this hospital for delivery, given its proximity to the HKCH.

Perinatal Service

Perinatal service will be delivered in the KEC in a family-centred and baby-friendly setting. It is recommended there should only be one neonatal intensive care unit (NICU) in the Cluster in order to maintain a critical caseload for staff proficiency and for economy of scale, and it should be located at the same hospital as the labour and delivery service to better support the newborn babies. In connection, as there are two AEDs in the KEC, arrangements for neonatal transport should be made for transferring babies to the NICU, if presentation and admission is through the hospital without the perinatal service.

There should be seamless collaboration between the NICU in KEC and the HKCH for babies with surgical problems and complex pathologies requiring specialised multi-disciplinary care. Also, if a new acute hospital were to be developed at Kai Tak, this should include collaboration among the neonatal service and the maternal foetal medicine teams in KEC and the new hospital in the medical and surgical management of high-risk pregnancies.

At the same time the neonatal service should continue to have access to clinical support from paediatric surgery, ENT, ophthalmology, orthopaedics, dento-maxillary facial surgery, clinical pharmacy, diagnostic and interventional radiology, psychiatry (for the mother), allied health and anaethesiology through collaborations within the KEC and with the HKCH.

Finally, given the recommendation to concentrate perinatal services to a single hospital in the Cluster, it is proposed that the service configurations and staffing arrangement for paediatrics between UCH and TKOH be reviewed, so as to support clinical exposure, training, expertise sharing and service resilience.

Implementation Enablers

If the development of a new acute hospital goes ahead at Kai Tak, prior to its service commencement there should be a review of the obstetric and perinatal service arrangement in KEC in order to determine the most suitable configuration. In the meantime, there should be input into the expansion project for UCH to ensure the planned facilities meet the needs of patients and staff. Efforts should also be put into mapping out the clinical pathways, referral protocols and workforce arrangements to support the service recommendations.

MENTAL HEALTH SERVICES

Co-chairs

Dr David CHAO Family Medicine Coordinator, KEC / Chief of Service (Family Medicine & Primary Health Care), UCH & TKOH

Dr G C YIU Service Director (Mental Health), KEC / Chief of Service (Psychiatry), UCH & TKOH

Recommended Models of Care

A collaborative model involving different specialties and different service units at various levels is proposed to optimise resources in a recovery-oriented and shared-care approach for mental health services. Accordingly, a proactive approach is taken to assess and manage patients at common referral sources of psychiatric out-patient service. At the same time, active involvement of patients and their carers in the recovery process will be facilitated, with rehabilitation programmes extending from in-patient settings through to the community in a comprehensive continuum of care.

Service Recommendations

Core Service Development

In view of rising demand, the psychiatric out-patient service model and provision would be reviewed regularly and enhancements would be made in alignment with overall plans. Core services such as the Early Assessment Service for Young People with Psychosis Programme (EASY and EASY+) and Personalised Care Programme (PCP) should be consolidated and enhanced to provide better support for patients suffering from severe mental illness. Depending on the utilisation pattern, enhancing the capacity of age- and gender-specific in-patient facilities should be considered. In addition, extension of service for patients with learning disability is also recommended as they are vulnerable to mental disorders and usually have difficulty in accessing the mental health services.

Gate-keeping Strategies

To reduce referrals to the Psychiatry SOPC, the psychiatric consultation-liaison service at AED should be strengthened, and the Integrated Mental Health Programme (IMHP) at GOPC enhanced. At the same time a multi-disciplinary psychiatric liaison team is proposed to support networking with the private sector and to develop public-private partnerships.

Step-down and Exit Strategies

To support rehabilitation, it is recommended that both the psychiatric day hospital service and community-based services should be enhanced. In this regard, community-based nurses and allied health professionals in the form of mobile nurse and allied health clinics is suggested for supporting psychiatric patients as well as their families and carers in the community. Meanwhile, rehabilitation programmes can also be established in the community through networking with NGOs, government departments and schools.

Implementation Enablers

Short-term

In the short-term it is recommended to enhance capacity and accessibility of psychiatric day hospital to improve the continuum of care, allied health and nursing support to the psycho-geriatric service and child and adolescent mental health services, as well as to enhance both the gate-keeping and step-down functions of Integrated Mental Health Programme (IMHP) at GOPC.

Medium-term

In the medium-term, consideration should be given to the establishment of a multi-disciplinary psychiatric liaison team to provide training and to network with private medical practitioners in the KEC to support public-private partnerships for managing common mental disorders.

At the same time, there should be strengthening of the psychiatric consultation-liaison service in the hospital setting to meet rising demand, as well as enhancement of post-discharge assessment and rehabilitation services, especially community-based services. In particular, training and development of community-based nurses and allied health professionals will be needed to support community service partners in the continuation of rehabilitation programmes at the community setting.

Meanwhile, expansion of the coverage of the PCP can be considered for elderly psychiatric patients. There can also be a review to consider school-based intervention and outreach programmes for the child and adolescent mental health service. On the other hand, formation of self-help and family support groups is recommended to support patient education, engagement and empowerment.

Long-term

In the long run, the psychiatric in-patient service should be strengthened with age- and gender-specific facilities to enhance the continuum of mental health services in the KEC.

IMPLEMENTATION ENABLERS

Implementation of the strategies, models of care and service recommendations in this plan will depend on a number of key drivers as enablers of change. Above all, a greater shift in culture and clinical practice will be required to translate into action the major strategies of promoting ambulatory care and enhancing collaboration at multiple levels in the Cluster, particularly in relation to development of cluster-based services among the hospitals, such as for surgery and interventional services. It is important in this respect to continue the momentum and commitment built up during the development of the CSP in order to accelerate the adoption of new working practices and behaviours.

Correspondingly, many of the service recommendations outlined by the CWGs can begin now and the HA annual planning process will be the mechanism through which additional resources will be sought for their implementation.

While the reports by the CWGs in the chapter on Clinical Service Programmes highlight the specific implementation enablers for their respective programmes, the common themes are summarised below.

PHYSICAL FACILITIES

There are a number of major capital projects that have either been completed or are in the pipeline in the KEC, which will provide the necessary physical setup required for implementing the various service recommendations. Specifically, facilities at the new Ambulatory Care Block of TKOH completed in 2012 will need to be commissioned into service as soon as possible to support the expanded role of the hospital in the provision of day- and short-stay procedures. At the same time, the expansion project of UCH is currently underway and guided by the UCH CSP. In addition, the expansion of HHH is now under planning for the re-provisioning of its infirmary wards and the enhancement of capacity in convalescent / rehabilitation care.

In view of the above, continued input into the various capital projects should be provided based on the strategies and service directions outlined in this CSP, so as to ensure the planned facilities are in line with the recommended service models.

WORKFORCE PLANNING

Across all the clinical strategies and service recommendations set out in the KEC CSP, workforce is the most important asset in putting them into action. Developing the required skills and expertise and building workforce capacity are crucial to the success of the future service developments in the Cluster.

In particular, the establishment of new services, such as cancer service, will require a long lead time while new staff members are recruited and existing ones trained up. This requires robust forward planning of the workforce requirements and service needs well before the commissioning of these services.

For many of the existing services and clinical service programmes outlined, the drive towards more integrated, collaborative and multi-disciplinary practices across the Cluster hospitals will require greater mobility of clinical teams or enhanced communication and collaboration, as well as development of clinical protocols and care algorithms. For some staff it may mean new ways of working and possibly new roles and responsibilities. Coupled with re-working of clinical pathway for a more cluster-based approach, there will likely be a need for skill development and change management to support implementation of the strategies.

At the same time, the models of care and strategies laid out in the CSP present opportunities for healthcare professionals in the Cluster to take up enhanced roles. For example, nurses and allied health professionals as care coordinators in chronic disease management and cancer care coordination for complex cases. While these advanced practice roles present the possibility of new career structures, there is a need to further deliberate and align these in HA in terms of workforce planning and training.

For case management, the coordinators will be trained in disease and care management, patient information management, and discharge planning. They are also required to be skilful in facilitating collaborations and teamwork across disciplines, specialties and hospitals. Although some services in HA have already adopted a case management approach for some types of care, for example cancer, elderly and mental health services, for others these will need to be developed as appropriate. Recognising these posts as important for the smooth management and coordination of high complexity care is important.

Turning to medical staff, a key challenge will be the multitude of elderly patients and patients presenting with multiple co-morbidities to HA services. The general medical care model recommended for enhancing chronic disease management and elderly care will necessitate a rethink of the roles and development of generalists and specialists in the medical profession. The model will require the specialists to take up general medical duties, and the generalists to strengthen their role in managing specific medical conditions. Nevertheless, while there is a need to restructure or reorganise the existing services in order to implement the model, care should be taken to avoid creating new services or even a new sub-specialty when doing so.

ORGANISATION AND MANAGEMENT OF CLUSTER-BASED CLINICAL PROGRAMMES

The organisation, management and governance of the clinical programmes will require deliberation within the Cluster. Many of the clinical programmes involve elements of a cluster-wide approach to planning and delivery, and in some cases cross-cluster service provision. These require varying degrees of service integration and collaboration across the hospitals and teams in the KEC and therefore imply the requirement for cluster-wide coordinator roles for clinical programmes.

In this regard, a significant number of CWGs highlighted the importance of a Cluster taskforce or hospital-based work groups to oversee the further planning and implementation of the clinical service programmes. In particular, for cancer services, the establishment of a clinical director to lead the commissioning and coordination of the service is emphasised.

At the same time, the development and organisation of a number of the clinical service programmes, such as PPCI, have wider implications on corporate strategy, facility design, and technology and resource requirements. Accordingly, the development of such services in the Cluster will require alignment with the corporate direction.

INFORMATION AND COMMUNICATIONS TECHNOLOGY

With the strategies and re-engineering of clinical programmes in the KEC aimed at greater collaboration and coordination, as well as the optimal use of facilities and resources across the hospitals, ICT support is essential.

For example, peri-operative services will need to leverage on ICT to facilitate efficient theatre management and scheduling across UCH and TKOH as part of its cluster-based approach to services. Whereas for critical care services, the use of telemedicine and tele-radiology are key components in the delivery of time-critical services in the Cluster and in joint cross-specialty decision-making for patient care. Also, for GI and hepatology, coordinated triage and electronic booking systems are important components in facilitating streamlined patient referral across care settings.

Hence, high levels of communication and the ability to share appropriate and relevant patient information is a key factor to facilitate the Cluster in realising the strategies and service directions of the KEC CSP. Capitalising on developments in ICT will enable staff to deliver highly coordinated and integrated care across the patient pathways, including shared decision-making, joint care planning and cross-hospital collaboration.

Given the major capital projects in the pipeline in the KEC, there will be opportunities to leverage these infrastructure developments for the incorporation of ICT to further support the clinical strategies and service directions.

CAPACITY PLANNING

Alongside the formulation of the clinical strategies, information was also compiled on the projected capacity requirements of the Cluster so as to facilitate the alignment and planning of services and facilities in the future. The focus was on the projected acute and extended care beds required to be provided in the Cluster for the next two decades up to 2031, with 2010 as the base year. This was based on an overall HA-wide demand projection exercise, using demand modelling techniques.

The HA-wide demand projection took into account population growth, demographic changes and age-gender-specialty-specific service utilisation trends. It was conducted in close collaboration with clinicians from across the different clinical specialty committees, as well as with cluster management teams and the Census and Statistics Department (C&SD) of the Government.

The following sections briefly outline the planning parameters and methodology for the demand projection.

DATA SOURCES

Projections were based on data from the following four main data sources:

- Service utilisation data from 2004 to 2010 were extracted from the HA data warehouse, which included the Integrated Patient Administration System and the Obstetrics Clinical Information System for newborn delivery data;
- Local birth statistics in 2010 and 2011, and birth projection figures from 2012 to 2031, were obtained from C&SD;
- Population projection figures from C&SD, and district-based population projections from the Planning Department of the Government, from 2012 to 2031; and
- Cross-border eligible persons (EPs) were quantified in consultation with C&SD.

PLANNING PARAMETERS

All parameters for the projections were age-gender-specialty-specific and comprised a combination of the following age, gender and specialty groups:

- For acute care, ten age groups of 0-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-59, 60-64, 65-69, 70+ years, with 14 specialty groups (Dental, ENT, Emergency Medicine, Gynaecology, ICU / HDU, Medicine, Neonatology, Obstetrics, Oncology, Hospice, Ophthalmology, Orthopaedics, Paediatrics and Surgery);
- Age-specific rates per female population for Obstetrics and Gynaecology specialties;
- For Neonatology, including NICU and Special Care Baby Unit (SCBU), planning parameters were devised from birth data;

- For extended care, including convalescent / rehabilitation care and local infirmary service, the ratio of acute to extended care bed days occupied per linked episode was considered.

PROJECTION METHODOLOGY

For the projected bed requirement for each clinical specialty, other than Obstetrics and Neonatology, the volume and mix of expected service demand from residents in each district was first computed taking into account the projected age-gender-specialty-specific hospital service utilisation rates and average length of stay (ALOS), as well as population growth and ageing over the period to 2031.

The hospital patronage pattern across districts was also computed, using base-year data on specialty-specific cross-cluster patient flow, with adjustments to take into account the commencement of new services in hospitals in the projection years for acute bed days (including Oncology services in UCH after its redevelopment). The demand for KEC acute bed days was derived by applying the assumed hospital patronage pattern specifically for the KEC, i.e., the proportion of residents residing in each district throughout Hong Kong who would use KEC services.

In addition, since significant growth in the number of cross-border EPs was observed in the past years, the demand from cross-border EPs was also incorporated into the projection. In this regard, it was estimated that the utilisation by cross-border EPs in 2010 was around 5% and 1% of HA's total patient days for the Paediatrics specialty and in-patient hospital services, respectively.

For Obstetric services, bed demand was derived from the projected number of births in Hong Kong, which included births to local and Mainland mothers. The territory-wide local birth projection figures were distributed across districts, based on the districts' projected female population aged 15 to 49 years, together with the district-age-specific fertility rates. For projected births to local mothers at district level and Mainland mothers at territory-wide level, the respective public hospital share and hospital patronage patterns among the eight HA Obstetric Units at base year were then applied to derive the projected Obstetric bed requirement for KEC.

With regard to Neonatology, the projected births at UCH formed the basis for estimating the SCBU and NICU service demand, with the use of respective utilisation rates. Referrals of infants born in other HA hospitals were also considered. At the same time the demand for SCBU and NICU from outborns (i.e., infants born in non-HA hospitals) was based on the respective utilisation rates, the total projected births at private hospitals, as well as the relative distribution of outborn admissions among UCH and the other SCBU and NICU in HA.

Finally, the projected extended care bed requirement for KEC was computed based on the projected acute bed days for KEC and the HA-wide age-gender-specialty ratio of acute to extended care bed days occupied per linked episode.

CASEMIX ADJUSTMENT

To take into account the different specialty service network arrangements in HA and variations in the specialty-specific casemix

profile among clusters, casemix data from 2009 to 2011 was used to identify variations in the complexity of acute in-patient services across the clusters.

Given that it has been observed that LOS increases with case complexity, for every hospital and age-gender-specialty sub-group, an anticipated LOS was computed based on the actual number of episodes of each Diagnosis Related Group and the corresponding HA-wide ALOS. Results from this analysis on the complexity of acute in-patient services delivered among the different specialties of HA hospitals were subsequently factored into the projection.

ASSUMPTIONS FOR BED PROJECTION

The projection methodology described above provided a base-case scenario to demonstrate the nature and volume of in-patient activities to be expected for the KEC in 2031. It assumes the market share of HA, as well as patient volume and mix, referral patterns and policy remain the same over the projection horizon for the Cluster.

The projection covered both in-patient and day-patient bed days. The projected bed days for acute care beds were translated into the number of in-patient acute beds required for each specialty by assuming an 80%-90% occupancy rate, dependent on the proportion of emergency caseload. For instance, for ICU / HDU, NICU and Obstetrics, a lower occupancy rate of 80% was assumed since these departments generally admit patients on an urgent but random basis, and so greater flexibility should be allowed for. As for day beds under acute care and in-patient beds for extended care services, 120% and 90% occupancy rates were assumed respectively.

PROJECTED BED REQUIREMENT

The projected acute and extended care bed requirements for the KEC are summarised in *Table 1* below. According to the demand projection, it was estimated that the Cluster would need to provide around 3,500 acute and extended care beds in 2031. This took into account cross-cluster flow whereby residents in Kwun Tong and Sai Kung received some services from the other clusters, particularly for those tertiary or quaternary services not available in KEC, while a small proportion of residents from other districts also used the services of KEC.

Table 1. Projected acute and extended care bed requirement for the KEC in 2031

Care Category	Projected Bed Requirement for the KEC in 2031
Acute Care (1)	2,600
Extended Care (2)	900
Total (3)	3,500

Notes:

1. Excludes A&E observation beds (50 beds as at December 2010) and beds under Nursery specialty (45 beds as at December 2010).
2. Includes beds for convalescent / rehabilitation and infirmary care, but excludes beds for Central Infirmary Waiting List placement (no bed as at December 2010).
3. Sum of individual figures may not equal the total due to rounding.

SCENARIO MODELLING – POSSIBLE DEVELOPMENT OF A NEW ACUTE HOSPITAL AT KAI TAK

To take into account the possible development of a new acute hospital at Kai Tak, and potential changes in the hospital patronage pattern among the population residing in the nearby districts such as Wong Tai Sin, Kowloon City and Kwun Tong, a scenario analysis was conducted to assess the effect on the bed requirement for the KEC in general.

For the purpose of scenario modelling, it was assumed that a new acute general hospital would be developed at Kai Tak, which would be providing comprehensive clinical services of major specialties, including accident and emergency services. Other factors considered in the scenario analysis included the following:

- Latest planned road works in the Kai Tak Development Area received from the Civil Engineering and Development Department of the Government;
- Empirical hospital patronage pattern in 2010;
- Organisation of specialised services among the clusters; and
- The possible magnet effect of the new hospital.

Under the scenario modelling, the estimated requirement of acute and extended care beds in 2031 for the whole KEC is around 3,300 beds after taking into account the effect of the possible development of a new acute hospital at Kai Tak. That would be around 200 beds less than the base-case scenario because some patients residing in Kwun Tong district, in particular Richland Gardens, Telford Gardens and Kai Yip Estate, who have previously gone to UCH, may go to the new acute hospital at Kai Tak since it would be nearer for them.

CONCLUSION

CONCLUDING REMARKS

The KEC CSP maps out how the KEC intends to deliver patient-centred, coordinated services on an efficient and sustainable basis. In gist, high levels of collaboration are the hallmark of the CSP, particularly among the three hospitals in the Cluster, with the development of cluster-based services the unifying approach. A better alignment of services will help to harness the full potential of staff, facilities and equipment across the Cluster for the maximum benefit of patients, while at the same time improving efficiency and helping the Cluster to manage rising service demand.

For some specialties / sub-specialties in the KEC, cluster-based services are already in place, e.g. ENT, Ophthalmology, Gynaecology, Urology and Nephrology. Going forward, the cluster-based approach to services will become a key feature for many other specialties and disciplines in the KEC, as reflected in the reports of the various CWGs. Most notably, the cancer service as the new flagship service of the Cluster will be characterised by cluster-based multi-disciplinary teams working across and rotating among the three hospitals for the provision of a full continuum of well-coordinated and integrated care.

Overall, the strategies and service directions set out in the CSP affirm the role of UCH as the tertiary referral centre of KEC. They echo and align with the service developments that have been formulated earlier in the UCH CSP to guide the expansion project of UCH. This includes cancer as the new flagship service and strengthening of ambulatory, rehabilitation and emergency care. At the same time, the KEC CSP has taken a broad cluster perspective and therefore services at UCH will develop with greater alignment and collaboration with respect to the other hospitals in the KEC and neighbouring clusters. This includes complex ultra-major surgeries concentrated at UCH as part of a cluster-based approach to peri-operative services. It will also be the main hospital in the Cluster for the provision of PPCI.

On the other hand, TKOH will continue as the district general hospital within the Cluster, providing 24-hour A&E and acute services, including acute general surgery. It will also continue to provide secondary care services to the local community. In addition, leveraging on its strengths, TKOH will develop services with a focus on promoting ambulatory care and expanding its role in the Cluster for high volume day- and short-stay procedures. At the same

time, the hospital has a key role alongside UCH in the overall strategy for the provision of cluster-based time-critical services for life-threatening illnesses, including an acute stroke service and PPCI. Similarly, given the developments in cancer services, it is anticipated that the provision of cancer care at TKOH will be enhanced in collaboration with UCH and according to service demand requirements, thereby supporting more comprehensive and holistic patient care to the local community.

Complementing the two acute hospitals, HHH will continue its role as the main hospital in the Cluster for extended care. Through more collaborative working the hospital will provide convalescent, rehabilitation, palliative and infirmary services, well-integrated along the care pathway with UCH and TKOH.

Overall, formulation of the strategies and clinical service directions has taken into account the previous innovative work and positive outcomes by the KEC staff in developing their services. It capitalises on their wisdom, professionalism and expertise, as well as the strong traditions and culture in the Cluster for fostering collaborations and partnerships along the philosophy of "Hospital Without Walls". With the new perspectives generated through the KEC CSP, there is a renewed impetus among the staff for re-organising and re-energising their services to meet the expanding and evolving healthcare needs of the local community they aspire to serve.

WAY FORWARD

Given the strong emphasis in the KEC CSP on service redesign, particularly in high levels of service collaboration and the development of cluster-based services, the key focus going forward will be the re-engineering of clinical pathways and the way services are delivered among the three Cluster hospitals, which may require a greater shift in culture and clinical practice.

Many of the changes necessary to bring about the service directions can begin now and in some cases are already underway. Imminent planning will be required to draw up proposals for implementing the service recommendations outlined by the CWGs so that resources can be sought through the HA annual planning process to put in place the key enablers for implementation.

At the same time, ongoing discussions with the relevant stakeholders will continue to be a pre-requisite to the successful implementation of the strategies and service recommendations. In particular, many of the CWGs propose setting up cluster-based taskforce or working groups to oversee the development of their respective clinical service programmes.

With the expansion project of UCH underway and the associated decanting, demolition and construction works in the years ahead, this may add to the capacity constraints of the hospital. Consideration will need to be given at the Cluster level on ways to minimise service disruptions, including harnessing the capacity of the other two hospitals, while at the same time preparing for the new models of care and service alignments that will propel the clinical strategies forward.

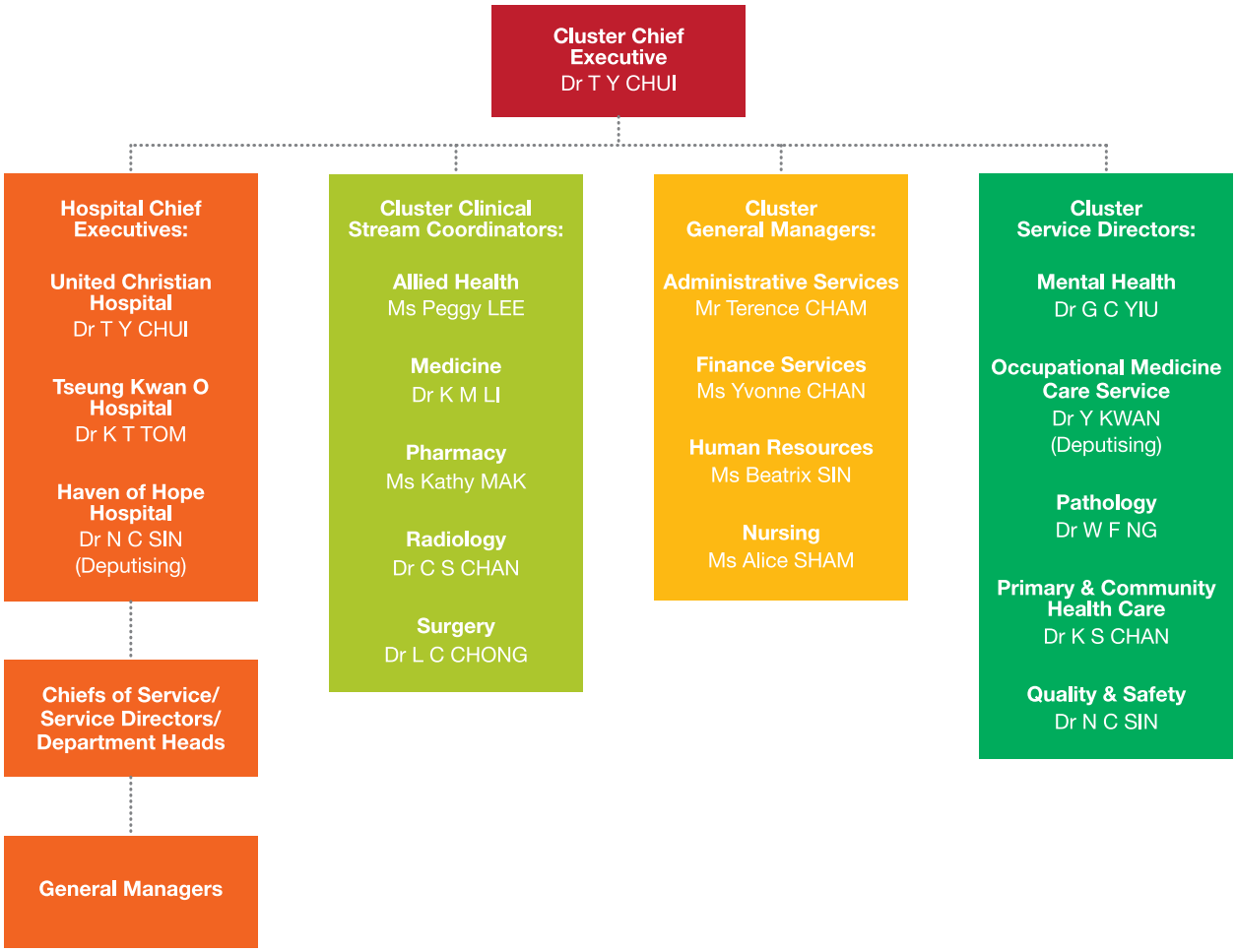
Turning to the changing environment in the Kowloon region, the KEC CSP has incorporated considerable flexibility in the strategies and clinical programmes to take this into account. In particular, the effects of the HKCH and possible development of a new acute hospital at Kai Tak on KEC services are especially noteworthy. For this reason, for clinical programmes such as obstetrics and perinatal services, it has been recommended that the service arrangements be reviewed prior to the commissioning of the respective services at the new acute hospital, should its development go ahead.

Overall, it is ultimately the staff within the Cluster, as the developers and custodians of the strategies and service directions laid out in the CSP, who hold the keys to its success. It is therefore crucial to build on the strong commitment, dedication and professionalism of the staff in the KEC to innovate and improve their services to be more attuned to the expanding and evolving needs of patients.

Riding on the momentum for change that has been built up during the formulation of the CSP, clear and open communication with staff, as well as change management will be essential for turning the clinical strategies and service directions into reality. In this respect, establishing comprehensive implementation and communication plans can go a long way to ensuring the CSP is put into action.

APPENDICES

APPENDIX 1: CURRENT ORGANISATIONAL STRUCTURE



(as at 1 December 2014)

APPENDIX 2: SUMMARY OF CURRENT SERVICES

UNITED CHRISTIAN HOSPITAL

• Clinical Services

- Accident & Emergency
- Anaesthesiology & Pain Medicine
- Clinical Toxicology
- Dentistry & Maxillofacial Surgery
- Ear, Nose & Throat
- Family Medicine & Primary Health Care (General Out-patient Services)
- Intensive Care
- Medicine & Geriatrics
- Obstetrics & Gynaecology
- Ophthalmology
- Orthopaedics & Traumatology
- Paediatrics & Adolescent Medicine
- Pathology
- Psychiatry
- Radiology & Organ Imaging (including CT Scan & Nuclear Medicine)
- Surgery (including Neurosurgery out-patient service)

• Specialised Services and Centres

- Kowloon East Pain Management Centre
- Integrated ENT Centre
- Geriatric Day Hospital
- Hong Kong Poison Information Centre
- Diabetic Ambulatory Care Centre
- Renal Ambulatory Care Centre
- Kowloon East Cluster United Christian Hospital Hospice Centre
- Kowloon East Cluster Breast Centre
- Psychiatric Day Hospital
- Day Surgery Centre
- United Ambulatory Care Centre
- Day Chemotherapy Centre
- Cleft Lip and Cleft Palate Treatment Centre
- United Christian Hospital Resuscitation Training Centre

• Allied Health Services

- Clinical Psychology
- Dietetics
- Occupational Therapy
- Pharmacy
- Physiotherapy
- Podiatry
- Prosthetic & Orthotic Services
- Speech Therapy
- Medical Social Services

• Clinical Supporting Services / Others

- Community Nursing Service
- Community Geriatric Service
- Community Physiotherapy Service
- Community Occupational Therapy Service
- Chaplaincy Service
- Community Relations & Volunteer Services

TSEUNG KWAN O HOSPITAL

• Clinical Services

- Accident & Emergency
- Anaesthesiology
- Coronary Care Unit
- Ear, Nose & Throat
- Family Medicine & Primary Care (General Out-patient Services)
- Gynaecology (including Obstetrics out-patient services)
- Intensive Care / High Dependency Care Unit
- Medicine
- Orthopaedics & Traumatology
- Ophthalmology
- Paediatrics & Adolescent Medicine
- Pathology
- Pharmacy
- Radiology
- Surgery

- **Specialised Services and Centres**
  - Ambulatory Surgery Centre
  - Cataract Centre
  - Day Medical Centre
  - Haemodialysis Centre
  - Magnetic Resonance Imaging Centre
- **Allied Health Services**
  - Clinical Psychology
  - Dietetics
  - Medical Social Services
  - Occupational Therapy
  - Physiotherapy
  - Podiatry
  - Prosthetic & Orthotic Services
  - Speech Therapy
- **Clinical Supporting Services / Others**
  - Community Nursing Services
  - Patient & Community Relations
  - Spiritual Care (Pastoral Care & Chaplaincy Services)

HAVEN OF HOPE HOSPITAL

- **Clinical Services**
  - Department of Medicine
    - *Geriatrics*
    - *Pulmonary*
    - *Rehabilitation*
    - *Palliative Care*
  - Infirmary service
- **Specialised Services and Centres**
  - Specialist clinics for geriatric, psychogeriatric, respiratory & tuberculosis services
  - Multi-disciplinary clinics for rehabilitation & palliative care
  - Geriatrics Day Hospital & Medical Rehabilitation Centre
  - Pulmonary Rehabilitation Centre
  - Community Nursing Service
  - Community Geriatric Service
  - Community Physiotherapy Service
  - Community Occupational Therapy Service
  - Palliative Home Care Service
- **Allied Health Services**
  - Clinical Psychology
  - Dietetics
  - Medical Social Work
  - Occupational Therapy
  - Pharmacy
  - Physiotherapy
  - Podiatry
  - Prosthetic & Orthotic Services
  - Speech Therapy
- **Clinical Supporting Services / Others**
  - Clinical Laboratory
  - Diagnostic Imaging
  - Endoscopy (bronchoscopy, oesophagogastroscopy & sigmoidoscopy)
  - Clinical Pastoral Care
  - Community & Health Resources Centre
  - Community Involvement & Volunteer Service

APPENDIX 3: PROJECT STRUCTURE AND GOVERANCE

KEC CSP PROJECT COMMITTEE

Terms of Reference

1. To plan, guide and steer the development of the KEC CSP.
2. To analyse, scrutinise and advise on the principles, assumptions, models of care, capacity planning and key recommendations proposed in the development of the CSP.
3. To receive the report generated by the external consultant and produce a final CSP for consideration by members of the Directors' Meeting and Medical Services Development Committee.

Membership

Co-chairs

Dr T Y CHUI	Cluster Chief Executive, KEC / Hospital Chief Executive, UCH *(from 1 July 2014)*
Dr Joseph LUI	Cluster Chief Executive, KEC / Hospital Chief Executive, UCH *(up to 30 June 2014)*
Dr S V LO	Director (Strategy & Planning), HAHO *(from 1 July 2014)*
Dr Libby LEE	Deputising Director (Strategy & Planning), HAHO *(up to 30 June 2014)*

Members

Mr John LI	Chairman, Hospital Governing Committee, UCH
Mrs Grace LEUNG	Member, Hospital Governing Committee, UCH
Dr Eliza CHAN	Chairlady, Hospital Governing Committee, TKOH
Dr C C LAM	Member, Hospital Governing Committee, HHH
Dr K T TOM	Hospital Chief Executive, TKOH
Dr T Y CHUI	Hospital Chief Executive, HHH *(up to 30 June 2014)*
Dr K M LI	Chief of Service (Accident & Emergency) / Service Director (Complaints Management & Emergency Preparedness), UCH
Dr M F LEUNG	Clinical Stream Coordinator (Medicine) / Consultant (Medicine & Geriatrics) / Service Director (Community Service & Planning), UCH
Dr L C CHONG	Clinical Stream Coordinator (Surgery), KEC / Chief of Service (Surgery), TKOH
Ms Alice SHAM	Cluster General Manager (Nursing), KEC / General Manager (Nursing), UCH
Mr Terence CHAM	Cluster General Manager (Administrative Services), KEC / General Manager (Administrative Services), UCH
Ms Yvonne CHAN	Cluster General Manager (Finance), KEC
Ms Beatrix SIN	Cluster General Manager (Human Resources), KEC
Ms Peggy LEE	Clinical Stream Coordinator (Allied Health), KEC / Cluster Department Manager (Dietetic), UCH & TKOH & HHH
Dr Jenny LAM	Chief Manager (Service Planning & Transformation), KEC
Mr Patrick NG	Cluster Manager (Planning & Commissioning), KEC

Dr Libby LEE	Chief Manager (Strategy, Service Planning & Knowledge Management), HAHO *(from 1 July 2014)*
Ms Looi Looi LOW	Deputising Chief Manager (Strategy, Service Planning & Knowledge Management), HAHO *(up to 30 June 2014)*
Ms Eva TSUI	Chief Manager (Statistics & Workforce Planning), HAHO
Mr Donald LI	Chief Manager (Capital Planning), HAHO
Dr Kenneth TSANG	Senior Manager (Strategy & Service Planning), HAHO

Secretary

Ms Ada CHIU	Hospital Manager (Planning & Commissioning), UCH

KEC CSP ADVISORY PANEL

Terms of Reference

1. To review, comment and provide advice to the Project Committee in the development of the KEC CSP.
2. To review and provide expert comment and feedback to the Project Committee on the key observations and recommendations proposed by the external consultancy on the KEC CSP.

Membership

Co-convenors

Dr Joseph LUI	Cluster Chief Executive, KEC / Hospital Chief Executive, UCH *(up to June 2014)*
Dr Libby LEE	Deputising Director (Strategy & Planning), HAHO *(up to June 2014)*

Members

Dr TSE Chun Yan	Former Hospital Chief Executive, UCH
Prof Diana LEE	Director, The Nethersole School of Nursing, CUHK
Dr Danny MA	Member, Hospital Governing Committee, UCH
Dr Ip Tim LAU	Chief of Service (Medicine), TKOH
Mr Andy LAU	Representative of Patient Group, UCH
Dr Albert LO	Cluster Chief Executive, KCC / Hospital Chief Executive, QEH & Rehabaid Centre
Dr Nancy TUNG	Cluster Chief Executive, KWC / Hospital Chief Executive, Princess Margaret Hospital & North Lantau Hospital

KEC CSP PLANNING TEAM

Kowloon East Cluster

Dr K M LI	Chief of Service (Accident & Emergency) / Service Director (Complaints Management & Emergency Preparedness), UCH
Ms Alice SHAM	Cluster General Manager (Nursing), KEC / General Manager (Nursing), UCH
Mr Terence CHAM	Cluster General Manager (Administrative Services), KEC / General Manager (Administrative Services), UCH
Dr Jenny LAM	Chief Manager (Service Planning & Transformation), KEC
Mr Patrick NG	Cluster Manager (Planning & Commissioning), KEC
Ms Shirley NGAI	Personal Secretary (Service Director), UCH
Ms Ada CHIU	Hospital Administrator I (Project Management), TKOH

HA Head Office

Dr Libby LEE	Chief Manager (Strategy, Service Planning & Knowledge Management), HAHO
Ms Looi Looi LOW	Senior Manager (Strategy & Service Planning), HAHO
Dr Kenneth TSANG	Senior Manager (Strategy & Service Planning), HAHO
Dr Douglas WEST	Manager (Strategy & Service Planning), HAHO *(up to 30 June 2014)*
Mr Raymond LI	Manager (Strategy & Service Planning), HAHO *(from 1 July 2014)*
Ms Inez WU	Manager (Strategy & Service Planning), HAHO *(from 1 July 2014)*
Ms Siobhon CHENG	Executive Officer (Strategy & Service Planning), HAHO
Ms Samantha STONE	Executive Assistant (Strategy & Service Planning), HAHO *(up to 14 July 2014)*

External Consultant to the Planning Team

Dr Peter BRENNAN	Director, MA International Pty Ltd, Australia

KEC CSP CHIEF OF SERVICE WORKGROUP

Terms of Reference

1. To provide comment and advice to the Planning Team on vertical specialty-based consultation.
2. To provide advice to the Planning Team on horizontal work groups themes, chairmanship and composition.
3. To provide advice to the Planning Team on the theme, framework and content of the KEC CSP.

Membership

Convenor

Dr K M LI	Chief of Service (Accident & Emergency) / Service Director (Complaints Management & Emergency Preparedness), UCH

Members

Dr C S CHAN	Clinical Stream Coordinator (Radiology), KEC / Chief of Service (Radiology), UCH
Dr L C CHONG	Clinical Stream Coordinator (Surgery), KEC / Chief of Service (Surgery), TKOH
Dr M F LEUNG	Clinical Stream Coordinator (Medicine) / Consultant (Medicine & Geriatrics) / Service Director (Community Service & Planning), UCH
Dr Victor ABDULLAH	Chief of Service (Ear, Nose & Throat), UCH / Chief of Service (Ear, Nose & Throat), TKOH
Dr C W CHAN	Chief of Service (Orthopaedic & Traumatology), UCH
Dr H B CHAN	Chief of Service (Paediatric & Adolescent Medical) / Service Director (Information Technology & Telecommunications), UCH
Dr K S CHAN	Service Director (Primary & Community Health Care) / Chief of Service (Medicine), HHH
Dr Dickson CHANG	Chief of Service (Accident & Emergency), TKOH
Dr David CHAO	Family Medicine Coordinator, KEC / Chief of Service (Family Medicine & Primary Health Care), UCH & TKOH
Dr H K CHENG	Chief of Service (Anaesthesia & Operating Theatre Services) / Service Director (Ambulatory Surgery Centre), TKOH
Dr Gwen FOK	Chief of Service, (Anaesthesiology & Pain Medicine), UCH
Dr S C FUNG	Chief of Service (Dentistry & Maxillofacial Surgery), UCH
Dr K F HUEN	Chief of Service (Paediatrics & Adolescent Medicine), TKOH
Dr Thomas LAI	Chief of Service (Radiology) TKOH & HHH
Dr S H LAM	Chief of Service (Surgery), UCH
Dr F L LAU	Chief of Service (Clinical Toxicology), UCH / Director (Hong Kong Poison Information Centre) / Consultant (Accident & Emergency), UCH
Dr I T LAU	Chief of Service (Medicine), TKOH
Dr K I LAW	Chief of Service (Intensive Care Unit), UCH
Dr Y L LEE	Chief of Service (Orthopaedics & Traumatology), TKOH
Dr Kenneth LI	Chief of Service (Ophthalmology), UCH & TKOH / Director (Wu Ho Loo Ning Cataract Centre), TKOH
Dr P W NG	Chief of Service (Medicine & Geriatrics), UCH
Dr W F NG	Service Director (Pathology), KEC / Chief of Service (Pathology), UCH & TKOH & HHH
Dr William TO	Chief of Service (Obstetric & Gynaecology), UCH & TKOH
Dr G C YIU	Service Director (Mental Health), KEC / Chief of Service (Psychiatry), UCH & TKOH

APPENDIX 4: MEMBERSHIP OF CLINICAL WORK GROUPS

AMBULATORY SERVICES

Co-chairs

Dr C K LAU	Consultant (Medicine) / Service Director (Day Medical Centre), TKOH
Dr W L NG	Deputy Chief of Service (Medicine & Geriatrics), UCH

Members

Ms Amelia CHANG	Department Operations Manager (Ambulatory / Accident & Emergency Department), TKOH
Dr C M CHU	Consultant (Medicine & Geriatrics), UCH
Ms Catherine CHEUNG	Senior Physiotherapist, TKOH
Mr City YIP	Senior Occupational Therapist, TKOH
Dr Dickson CHANG	Chief of Service (Accident & Emergency), TKOH
Mr Eric WONG	Department Manager (Physiotherapy), UCH
Dr Eudora CHOW	Consultant (Pathology), UCH
Ms H L NGAN	Nurse Consultant (Wound & Stoma Care), KEC
Dr H M TANG	Senior Medical Officer (Accident & Emergency), UCH
Ms K Y LEE	Department Operations Manager (Community Nursing Service), UCH & TKOH & HHH
Ms Maisy MOK	Nurse Consultant (Diabetes), KEC
Ms P L NGAN	Ward Manager (Medicine), UCH
Ms Peggy HUI	Senior Occupational Therapist, UCH
Ms S K CHAN	Nurse Consultant (Continence Care), KEC
Mr S K TANG	Department Operations Manager (Medicine & Geriatrics), UCH
Dr S M YU	Resident (Radiology), UCH
Dr Thomas LAI	Chief of Service (Radiology), TKOH & HHH

CHRONIC DISEASE MANAGEMENT

Co-chairs

Dr I T LAU	Chief of Service (Medicine), TKOH
Dr K S CHAN	Service Director (Primary & Community Health Care), KEC / Chief of Service (Medicine), HHH

Members

Dr C M CHU	Consultant (Medicine & Geriatrics), UCH
Mr City YIP	Senior Occupational Therapist, TKOH
Dr David CHAO	Family Medicine Coordinator, KEC / Chief of Service (Family Medicine & Primary Health Care), UCH & TKOH

Mr Eric WONG	Department Manager (Physiotherapy), UCH
Dr K K TSANG	Consultant (Medicine), TKOH
Ms K Y LEE	Department Operations Manager (Community Nursing Service), UCH & TKOH & HHH
Mr Maurice WAN	Department Manager (Occupational Therapy), UCH
Dr P W NG	Chief of Service (Medicine & Geriatrics), UCH
Ms Peggy LEE	Clinical Stream Coordinator (Allied Health), KEC / Department Manager (Dietetic), UCH & TKOH & HHH
Mr Tony AU	Department Manager (Integrated Rehabilitation Services), TKOH

GASTROENTEROLOGY AND HEPATOLOGY SERVICES

Co-chairs

Dr Steven TSANG	Consultant (Medicine) / Service Director (Combined Endoscopy Unit), TKOH
Dr T P FUNG	Consultant (Surgery) / Director (Endoscopy Centre), UCH

Members

Dr David CHAO	Family Medicine Coordinator, KEC / Chief of Service (Family Medicine & Primary Health Care), UCH & TKOH
Dr Derek LEE	Associate Consultant (Surgery), TKOH
Dr Henry JOENG	Associate Consultant (Surgery), UCH
Dr K C TSE	Associate Consultant (Anaesthesiology & Pain Medicine), UCH
Dr K N KUNG	Consultant (Medicine & Geriatrics), UCH
Ms Kathy MAK	Clinical Stream Coordinator (Pharmacy), KEC / Department Manager (Pharmacy), UCH & TKOH & HHH
Dr M C LAM	Resident (Radiology), UCH
Dr N S FUNG	Associate Consultant (Pathology), UCH
Ms Rita LEUNG	Advanced Practice Nurse (Combined Endoscopy Unit), TKOH
Dr S H TSANG	Associate Consultant (Surgery), UCH
Dr S K KEI	Consultant (Radiology), TKOH
Ms S Y LAU	Department Operations Manager (Surgery), UCH

ELDERLY SERVICES

Co-chairs

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Dr T Y CHUI	Former Hospital Chief Executive, HHH

Members

Dr Albert FUNG	Associate Consultant (Accident & Emergency), UCH
Dr Albert HSU	Associate Consultant (Orthopaedic & Traumatology), UCH
Ms Bonnie CHEUNG	Cluster Coordinator (Patient Support & Volunteer Development), KEC / Senior Hospital Manager (Community Partnership), UCH
Dr C C CHAN	Associate Consultant (Medicine & Geriatrics), UCH
Dr David CHAO	Family Medicine Coordinator, KEC / Chief of Service (Family Medicine & Primary Health Care), UCH & TKOH
Mr Denis WONG	Department Manager (Prosthetic & Orthotic), UCH & TKOH & HHH
Dr Dickson CHANG	Chief of Service (Accident & Emergency), TKOH
Ms Eliza TAM	General Manager (Nursing), TKOH
Mr Eric WONG	Department Manager (Physiotherapy), UCH
Ms Esther Poon	Senior Speech Therapist, UCH & TKOH & HHH
Dr H S SO	Consultant (Surgery), UCH
Ms Harriet LO	Senior Physiotherapist, UCH
Dr Ian CHAN	Associate Consultant (Medicine & Geriatrics), UCH
Ms Irene CHAN	Advanced Practice Nurse (Geriatrics), UCH
Dr I T LAU	Chief of Service (Medicine), TKOH
Dr Jennifer MYINT	Deputizing Chief of Service (Rehabilitation), KH
Mr K F CHUNG	General Manager (Nursing), HHH
Mr K M LAI	Department Manager (Podiatry), UCH & TKOH & HHH
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Ms K Y LEE	Department Operations Manager (Community Nursing Service), UCH & TKOH & HHH
Dr K Y SHA	Senior Medical Officer (Medicine & Geriatrics), UCH
Mr Kenneth CHEUNG	Pharmacist, UCH
Ms M W LEUNG	Ward Manager (Geriatrics), UCH
Dr P C PAN	Consultant (Psychiatry), UCH
Mr Patrick LUK	Dietitian, KEC
Ms Peggy HUI	Senior Occupational Therapist, UCH
Mr S H LEUNG	Nurse Consultant (Community), KEC
Ms S K CHAN	Nurse Consultant (Continence Care), KEC
Mr S K TANG	Department Operations Manager (Medicine & Geriatrics), UCH
Mr S W CHAN	Ward Manager (Geriatrics), UCH

Dr S Y FUNG	Associate Consultant (Medicine & Geriatrics), UCH
Dr T C SIM	Consultant (Medicine & Geriatrics), UCH
Dr T K YIM	Associate Consultant (Medicine & Geriatrics), UCH
Dr Timothy BRAKE	Senior Medical Officer (Anaesthesiology & Pain Medicine), UCH
Mr Tony AU	Department Manager (Integrated Rehabilitation Services), TKOH
Ms Y K TSOI	Department Manager (Medical Social Service), UCH
Dr Y L LEE	Chief of Service (Orthopaedics & Traumatology), TKOH
Ms Y M NGAI	Ward Manager (Geriatric Day Hospital), UCH

MUSCULOSKELETAL SERVICES

Co-chairs

Dr C W CHAN	Chief of Service (Orthopaedic & Traumatology), UCH
Dr C W YIM	Associate Consultant (Medicine), TKOH

Members

Mr C H WONG	Advanced Practice Nurse (Orthopaedics & Traumatology), TKOH
Ms C Y KONG	Department Operations Manager (Orthopaedic & Traumatology), UCH
Mr Chris CHOW	Senior Physiotherapist, UCH
Mr City YIP	Senior Occupational Therapist, TKOH
Dr David CHAO	Family Medicine Coordinator, KEC / Chief of Service (Family Medicine & Primary Health Care), UCH & TKOH
Mr Denis WONG	Department Manager (Prosthetic & Orthotic), UCH & TKOH & HHH
Mr Eric WONG	Department Manager (Physiotherapy), UCH
Ms Grace LEUNG	Dietitian, KEC
Mr Jackson WONG	Occupational Therapist I, UCH
Dr K L LEUNG	Associate Consultant (Anaesthesiology & Pain Medicine), UCH
Ms Louisa MA	Senior Occupational Therapist, UCH
Dr M C LEUNG	Associate Consultant (Medicine & Geriatrics), UCH
Dr M S LAW	Associate Consultant (Anaesthesiology & Pain Medicine), UCH
Dr P F CHAN	Consultant (Family Medicine & Primary Health Care), UCH
Ms P F LEE	Nursing Officer (Medicine), UCH
Dr S H WAH	Senior Medical Officer (Geriatrics & Rehabilitation), HHH
Ms S Y CHENG	Advanced Practice Nurse (Medicine — Rheumatology & Osteoporosis), TKOH
Dr Sammy MAK	Resident Specialist (Orthopaedic & Traumatology), UCH
Ms Tammy FUNG	Senior Physiotherapist, TKOH
Dr Y L LEE	Chief of Service (Orthopaedics & Traumatology), TKOH

CANCER SERVICES

Chair

Dr L C CHONG	Clinical Stream Coordinator (Surgery), KEC / Chief of Service (Surgery), TKOH

Members

Ms Alice SHAM	Cluster General Manager (Nursing), KEC & UCH
Dr C K LAU	Consultant (Medicine) / Service Director (Day Medical Centre), TKOH
Ms Eliza TAM	General Manager (Nursing), TKOH
Dr Eudora CHOW	Consultant (Pathology), UCH
Mr Gary CHONG	Pharmacist, UCH
Dr Henry JOENG	Associate Consultant (Surgery), UCH
Ms Jennifer SAN	Department Operations Manager (Medical Stream), TKOH
Dr K C NGAN	Chief of Service (Clinical Oncology), QEH
Dr K H WONG	Consultant (Clinical Oncology), QEH
Dr K S CHAN	Service Director (Primary & Community Health Care), KEC / Chief of Service (Medicine), HHH
Dr K Y CHOW	Consultant (Radiology), UCH
Dr Kenny YUEN	Associate Consultant (Surgery), TKOH
Dr Ronee CHAN	Senior Medical Officer (Radiology), TKOH
Mr S K TANG	Department Operations Manager (Medicine & Geriatrics), UCH
Dr S N HO	Consultant (Obstetric & Gynaecology), UCH
Ms S Y LAU	Department Operations Manager (Surgery), UCH
Dr Sharon CHAN	Associate Consultant (Surgery), UCH / Clinical Director (Breast Centre), KEC
Ms Sylvia NG	Clinical Psychologist, UCH
Dr W F NG	Service Director (Pathology), KEC / Chief of Service (Pathology), UCH & TKOH & HHH
Dr Y TUNG	Deputy Hospital Chief Executive / Chief of Service (Oncology), Tuen Mun Hospital
Dr Y K LAM	Associate Consultant (Medicine & Geriatrics), UCH
Dr Y Y LEUNG	Associate Consultant (Anaesthesiology & Pain Medicine), UCH

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Co-chairs

Dr K I LAW	Chief of Service (Intensive Care Unit), UCH
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Members

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Dr Alex T Y LAI	Associate Consultant (Surgery), TKOH
Dr C K CHAN	Consultant (Medicine & Geriatrics), UCH
Dr C K CHING	Service Director (Quality & Safety) / Consultant (Medicine), TKOH
Mr C P LEUNG	Ward Manager (Accident & Emergency), TKOH
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Ms Cindy CHAN	Deputizing Department Operations Manager (Medical Specialty Services) / Ward Manager (ICU), TKOH
Dr Joyce HUI	Consultant (Radiology), UCH
Ms P LI	Department Operations Manager (Accident & Emergency), UCH
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Dr Ronee CHAN	Senior Medical Officer (Radiology), TKOH
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Ms W Y CHUNG	Department Operations Manager (ICU), UCH
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Sub-group on Emergency Percutaneous Coronary Intervention Services

Group Leader

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Members

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Dr W S NG	Consultant (Accident & Emergency), TKOH

Sub-group on Emergency Stroke Services

Group Leader

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Mr Eric WONG	Department Manager (Physiotherapy), UCH
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Dr K F HUI	Associate Consultant (Medicine), TKOH
Dr K I LAW	Chief of Service (Intensive Care Unit), UCH
Ms P LI	Department Operations Manager (Accident & Emergency), UCH
Dr Ronee CHAN	Senior Medical Officer (Radiology), TKOH
Mr S K TANG	Department Operations Manager (Medicine & Geriatrics), UCH
Dr S M TING	Consultant (Accident & Emergency), UCH
Dr W S NG	Consultant (Accident & Emergency), TKOH
Dr W Y WONG	Associate Consultant (Radiology), UCH
Mr Y M CHU	Advanced Practice Nurse (Stroke Service), TKOH

PERI-OPERATIVE SERVICES

Co-chairs

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Dr Derek LEE	Associate Consultant (Surgery), TKOH
Dr Dickson CHANG	Chief of Service (Accident & Emergency), TKOH
Dr Dione SZETO	Consultant (Anaesthesia & Operating Theatre Services), TKOH
Ms Eliza TAM	General Manager (Nursing), TKOH
Dr Eudora CHOW	Consultant (Pathology), UCH
Mr H C CHAN	Nurse Consultant (Peri-operative Services), KEC
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Mr H K MA	Department Operations Manager (Operating Room), UCH
Dr H S LIM	Consultant (Anaesthesiology & Pain Medicine), UCH
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Dr L I HO	Dental Officer (Dentistry & Maxillofacial Surgery), UCH
Ms Mandy W M KWOK	Ward Manager (Ambulatory Surgery Centre / Integrated Disinfection & Sterilization Services), TKOH
Dr Patrick LI	Consultant (Eye), TKOH
Dr Regina CHOI	Consultant (Anaesthesiology & Pain Medicine), UCH
Mr S H LEUNG	Nurse Consultant (Community), KEC
Mr S W CHAN	Department Operations Manager (Central Sterile & Theatre Sterile Supply), UCH
Ms S Y LAU	Department Operations Manager (Surgery), UCH
Dr Samson CHAN	Senior Medical Officer (Orthopaedics & Traumatology), TKOH
Dr T K YIM	Associate Consultant (Medicine & Geriatrics), UCH
Dr T L CHOW	Chief of Service (Surgery), UCH
Dr Victor ABDULLAH	Chief of Service (Ear, Nose & Throat), UCH & TKOH
Dr W W GO	Consultant (Obstetric & Gynaecology), UCH
Ms Y K TSOI	Department Manager (Medical Social Service), UCH
Mr Y Y NGAI	Department Operations Manager (Anaesthesia & Operating Theatre Services / Ambulatory Surgery Centre), TKOH

OBSTETRICS AND PERINATAL SERVICES

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Members

Obstetrics Services

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Dr H K CHENG	Chief of Service (Anaesthesia & Operating Theatre Services) / Service Director (Ambulatory Surgery Centre), TKOH
Dr K M MOK	Consultant (Obstetric & Gynaecology), UCH
Dr Regina CHOI	Consultant (Anaesthesiology & Pain Medicine), UCH
Ms S Y LAI	Department Operations Manager (Obstetric & Gynaecology), UCH

Perinatal Services

Ms C M YAU	Deputy Ward Manager (Paediatric & Adolescent Medical), UCH
Dr David LAU	Deputy Chief of Service / Consultant (Paediatrics & Adolescent Medicine), TKOH
Dr K F HUEN	Chief of Service (Paediatrics & Adolescent Medicine), TKOH

Ms K M CHAN	Nurse Consultant (Neonatal Care), KEC
Dr Louis CHAN	Associate Consultant (Paediatrics & Adolescent Medicine), TKOH
Ms Miranda LUI	Ward Manager (Paediatrics & Adolescent Medicine), TKOH
Ms P K MA	Department Operations Manager (Paediatrics & Adolescent Medical), UCH
Dr W K CHIU	Consultant (Paediatric & Adolescent Medical), UCH
Dr Y C HO	Associate Consultant (Paediatric & Adolescent Medical), UCH
Ms Y F CHAN	Ward Manager (Paediatric & Adolescent Medical), UCH

MENTAL HEALTH SERVICES

Co-chairs

Dr David CHAO	Family Medicine Coordinator, KEC / Chief of Service (Family Medicine & Primary Health Care), UCH & TKOH
Dr G C YIU	Service Director (Mental Health), KEC / Chief of Service (Psychiatry), UCH & TKOH

Members

Ms Bonnie CHEUNG	Cluster Coordinator (Patient Support & Volunteer Development), KEC / Senior Hospital Manager (Community Partnership), UCH
Dr C S CHAN	Clinical Stream Coordinator (Radiology), KEC / Chief of Service (Radiology), UCH
Dr Dickson CHANG	Chief of Service (Accident & Emergency), TKOH
Ms Eliza TAM	General Manager (Nursing), TKOH
Ms H L TSANG	Department Operations Manager (Psychiatry), UCH
Ms Harriet LO	Senior Physiotherapist, UCH
Dr K H WONG	Consultant (Clinical Oncology), QEH
Dr K M LI	Chief of Service (Accident & Emergency) / Service Director (Complaints Management & Emergency Preparedness), UCH
Dr K S CHAN	Service Director (Primary & Community Health Care), KEC / Chief of Service (Medicine), HHH
Ms K Y LAU	Speech Therapist, KEC
Dr M F LEUNG	Clinical Stream Coordinator (Medicine), KEC / Consultant (Medicine & Geriatrics), UCH / Service Director (Community Service & Planning), UCH
Mr Maurice WAN	Department Manager (Occupational Therapy), UCH
Dr P C PAN	Consultant (Psychiatry), UCH
Dr P F CHAN	Consultant (Family Medicine & Primary Health Care), UCH
Dr Patrick CHEUNG	Consultant (Paediatric & Adolescent Medical), UCH
Dr Roger M K NG	Clinical Stream Coordinator (Mental Health), KCC / Chief of Service (Psychiatry), KH
Ms S M HO	Department Operations Manager (Family Medicine & Primary Health Care), UCH & TKOH
Mr S Y LI	Head of Department (Clinical Psychology), UCH & TKOH & HHH
Dr W C LAM	Consultant (Psychiatry), UCH
Ms W L SZETO	Nurse Consultant (Community Psychiatry), KEC
Dr Wallace CHO	Associate Consultant (Anaesthesiology & Pain Medicine), UCH
Mr Y Y LEE	Officer-in-charge (Medical Social Services Unit), Yung Fung Shee Memorial Centre

APPENDIX 5: ABBREVIATIONS

A&E	Accident and Emergency
AED	Accident and Emergency Department
CGAT	Community Geriatric Assessment Team
CNS	Community Nursing Service
COC	Clinical Coordinating Committee
CSP	Clinical Services Plan
CT	Computed Tomography
CWG	Clinical Work Group
DM	Directors' Meeting
ENT	Ear, Nose and Throat
EOL	End-of-life
GOPC	General Out-patient Clinic
GI	Gastroenterology
HA	Hospital Authority
HAHO	Hospital Authority Head Office
HDU	High Dependency Unit
HHH	Haven of Hope Hospital
HKCH	Hong Kong Children's Hospital
ICT	Information and Communications Technology
ICU	Intensive Care Unit
KCC	Kowloon Central Cluster
KEC	Kowloon East Cluster
KH	Kowloon Hospital
KWC	Kowloon West Cluster
MRI	Magnetic Resonance Imaging
MSDC	Medical Services Development Committee
NGO	Non-governmental Organisation
NICU	Neonatal Intensive Care Unit
OT	Operating Theatre
POC	Peri-operative Centres
PPCI	Primary Percutaneous Coronary Intervention
QEH	Queen Elizabeth Hospital
SOPC	Specialist Out-patient Clinic
STEMI	ST-elevation Myocardial Infarction
TKOH	Tseung Kwan O Hospital
UCH	United Christian Hospital

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