

Information Technology..... 資訊科技

Implementation of IT Solutions

Elderly Homes Management Information System for TWGHs Shuen Wan Complex for the Elderly

A new tailor-made application system integrated with the administration of clientele, residential, health-care, medical consultation and medication profiles of elderly homes was developed based on the successful experience in deploying off-the-shelf software at the central dispensary of the complex. With a view to providing accurate and timely information for operating staff like health-care workers, nursing professionals, dispensers and pharmacists, the new system not only handles daily medication information to support both unit-dose and non unit-dose dispensing process, but also streamlines the operation workflow in clientele admission & discharge, health assessment, safety control, medical consultation, and elderly homes' supervision and administration.

The overall service quality in medication safety and operational efficiency of the complex has improved since the system launch in April 2010. The features of control reports and drug dispensing have also been enhanced in early 2011. The system was renamed as "TWGHs Elderly Homes Management Information System".

Self-service Registration and Payment System at Kwong Wah Hospital - The Chinese University of Hong Kong Chinese Medicine Clinical Research and Services Centre

To enhance quality of services and care for the public, a new IT system with self-service kiosks was installed to handle patients registration and bill payment at Kwong Wah Hospital - The Chinese University of Hong Kong Chinese Medicine Clinical Research and Services Centre in early 2011. The system interacts with TWGHs Chinese Medicine Clinical Information System (CMCIS) to perform booking appointments of Chinese medicine consultation and to collect fees directly through Octopus payment. The self-service kiosks have also helped reduce queuing time in the morning. Computerization has enhanced operational efficiency and streamlined workflow to effectively handle a huge amount of attendance and fee collection during the peak hours.

資訊科技的解決方案

東華三院船灣安老院舍管理系統

根據前階段於船灣安老綜合中心中央藥房採用現成軟件的成功經驗，現已為使用者度身設計一個全新應用系統，結合院友個人資料、安老住院、醫療保健、諮詢及病歷等綜合管理。新系統除處理日常藥物資訊外(包括單一劑量與非單一劑量配劑程序)，還為保健員、護理員、配藥員和藥劑師等相關操作員工提供準確與實時資訊，簡化出入院舍手續、健康評估、安全監控、診治、安老院舍監督及行政等工作。



Tung Wah Group of Hospitals - Elderly Home Management Information System.
東華三院安老院舍管理系統。

自二〇一〇年四月啟用至今，系統除不斷改良整體服務素質、藥物安全和操作效率外，更於二〇一一年初新增及加強藥物分配和報表功能，並正式易名為「東華三院安老院舍管理系統」。

Implementation of IT solution for Mobile Chinese Medicine Clinics

In alignment with the development of Chinese medicine mobile clinics, the existing TWGHs Chinese Medicine Clinical Information System (CMCIS) was enhanced with a new functional module to support the mobile clinics' operation in early 2011. The system makes use of 3G mobile broadband service to connect with the centralized database for real-time access to patients' master data through SSL encryption protection. Chinese medicine practitioners therefore can easily review patients' histories and perform diagnoses and prescriptions at the mobile clinics. As the functional module is highly integrated with the CMCIS in system and data interoperability, relevant patient records, appointment, attendance, consultation, billing and drug stock records can seamlessly be linked up with the corporate database to provide quality IT services for the clinics. In particular, elderly and chronic patients can enjoy the same quality of clinical services at mobile clinics without travelling long distance.

Development of Information System for TWGHs Haemodialysis Centre at Kwong Wah Hospital

In order to provide record management services for specialists in nephrology and registered nurses, a new information system was developed and launched in April 2010. The system has played a key role in helping the centre set up relevant haemodialysis record containing prescription from specialists and billing transactions on different patient schemes.

Fixed Assets Registration System

To enhance asset management, the Fixed Assets Registration System has been totally revamped through utilizing web technology to provide distributed input at service centres and schools with support for both Chinese and English. "To-Do-List" and extensive reporting have been built for work efficiency and workflow enhancement to ensure operation control and data integrity. Integration of the system with Financial Accounting System would ensure more timely registration of fixed asset items in the Fixed Assets Registration System as the records of payment requisition of fixed assets would be uploaded to the Fixed Assets Registration System for subsequent updating of fixed assets registration of the corresponding fixed asset items.

Procurement system

A web-based procurement system has been adopted to computerize the process for all centres and schools. The system manages a full range of procurement activities including purchase requisition, quotation, purchase order and goods receipt. Other features like vendor and contract management were included. Each user would be assigned with authorization level and access privileges to ensure each purchase would be properly approved. Linkage has been built with the Financial Accounting System so that payment settlement of purchase orders could be monitored. The system would be launched in April 2011 to handle centralized procurement and order of bulk purchase items.

中醫專科門診自助登記及八達通收費系統（廣華醫院-香港中文大學中醫藥臨床研究服務中心）

為公眾提高服務素質及照顧，本院於二〇一一年初在廣華醫院-香港中文大學中醫藥臨床研究服務中心安裝自助登記及付款機。自助亭不僅與中醫醫療資訊系統以電子互動方式進行中醫應診預約登記還可透過八達通支付各項費用，減省公眾每天清早排隊輪候時間。電腦化提升中心服務操作效率、簡化在高峰時間處理大量登記和收費的工序。

實施中醫流動車門診服務解決方案

為配合中醫流動車門診的發展，已於二〇一一年初在中醫醫療資訊系統加入新功能模組。系統利用3G流動寬頻服務聯繫中央資料庫，經過SSL加密安全渠道即時存取病者資訊，讓中醫師在流動門診車上也可覆查病歷及過往求診記錄以進行準確診斷。在新模組功能中，數據可以相互操作，相關的病歷記錄、預約、應診、診治及中醫藥物等記錄連結到中央資料庫，為診所提供具質素的資訊科技服務。長者及長期病患者毋需長途跋涉也可在流動車上享用同等素質的門診服務。

發展東華三院血液透析中心管理系統（廣華醫院）

配合二〇一〇年四月起中心為末期腎病患者提供血液透析治療，系統為腎科專家和註冊護士提供記錄管理服務，準確處理預約及治療記錄。在中心專業醫療人員協助下，系統優化各項醫療功能以配合中心對資訊科技服務的需求。目前，系統協助中心記錄專業人員處方的相關血液透析記錄和各類患者計劃的賬單等重要資料。

固定資產資訊系統

為提升資產管理水平，本處今年重建固定資產系統。新系統採用網上平台，為服務單位和學校提供中英雙語的中央資料庫，每個資產標籤也加上條碼以方便點算。為提高工作效率，加強工作流程以達至操作控制和數據完整性，系統加入「待辦清單」和報表功能，也結合財務會計系統，在作出固定資產支賬時可直接上載至固定資產系統，確保員工適時更新有關固定資產的數據輸入。

電子採購系統

本院引入網上電子採購系統，處理中央採購及訂購大量採購項目的工作，包括訂購申請、報價、訂購單、收貨單，以

e-Form solution for appraisal report

Upon implementation of the New Pay Structure at Administration Headquarters, an e-Form solution for appraisal report has been built to ensure the accuracy of grading calculation as well as smooth workflow. The solution comprises data validation and real time grading calculation, and adopts strong encryption standard to protect the confidentiality of the reports. Quantitative data would then be captured for future processing and analysis.

及供應商和合約管理等功能。每位操作員均獲授予清晰的權限，確保每項購買經過適當批核。系統連接財務會計系統，監控訂購單的支付狀況。新系統於二〇一一年四月投入服務。

電子考績報告

為配合行政總部新推行的薪酬體制，本處協助人力資源處建立電子考績報告，確保績分計算無誤，使新的考勤管理系統工作流程更為流暢。系統包括資料核對、即時等級計算，採用加密標準以保護報告機密性，並收集數據以方便將來處理和分析。

Enhancements of IT Systems and Infrastructure Facilities

Enhancement in TWGHs Chinese Medicine Clinical Information System (CMCIS) for Integrated Chinese Medicine and Western Medicine "Anti-4 High" Screening Service and Management in Patient Assistance Funds

In line with the promotion of Integrated Chinese medicine and Western medicine "Anti-4 High" screening services at TWGHs Wilson T.S. Wang Centre of Integrated Health Management, the CMCIS has been enhanced with new functionality for Western medicine physicians and nurses to record screening results and other physical examination data when performing the new "Anti-4 High" screening service since November 2010. A set of clinical reports together with Chinese medicine practitioners' advice and comments related to sub-health could be produced from the system for patients' information. Besides, a new functional module was also added to manage different patient assistance funds and related waivers for needy patients in June 2010. Staff could easily manage allocated funds and balances remained at different periods of time.

Revamping IT infrastructure of Administration Headquarters

To mitigate the existing risk in continuing IT services, most IT equipment installed at the Administration Headquarters for more than 8 years should be replaced because of technological obsolescence, poor maintainability and IT security. The central network hub and related IT facilities at the Computer Room of the Administration Headquarters, which provides central computing services to headquarters, schools and service centres, would also be revamped to strengthen the maintainability, security control and operational efficiency. Higher bandwidth would be supported for future development. Relevant network redesign jobs have been completed in the first quarter of 2011, while actual installation and implementation work would commence in late 2011.

優化資訊科技基礎建設架構及資訊系統

中西醫「抗四高」普查服務和病人助醫計劃基金管理

為配合東華三院王澤森中醫館推廣中西醫「抗四高」綜合普查服務，於二〇一〇年十一月在中醫醫療資訊系統新增功能，記錄西醫醫護人員的普查結果、體格檢查數據、以及中醫師的建議和評論，為患者制訂一套臨床醫療報告。此外，中醫醫療資訊系統於六月加入病人助醫計劃基金管理的新功能，協助行政人員管理患者豁免費、基金分配及結餘等基金資料記錄。

更新行政總部的資訊科技設備

行政總部的網絡設備已使用長達八年之久，潛在維修及安全性問題，而更換現時為各科、處、學校及社服單位提供中央運算服務的中央網絡相關設施尤為關鍵。透過重建行政總部電腦中心的中央網絡，本院將加強有關設備的可維修性、安全系統和操作效率，並支援更高的頻寬，為日後發展需要作準備。相關的網絡設計工作於二〇一一年第一季完成，並於年底開始進行安裝工作。

A student quiz competition was introduced on the web site of "Hong Kong · Benevolent City - Tung Wah and Growth of Chinese Communities" exhibition.

《香江友情：東華三院與華人社會》展覽網站設學生有獎問答比賽。



Integration of income data

To enhance the control on income data, a new module has been built in the Financial Accounting System to accept income receipt information from various front end sources. Receipt data would be transferred daily to centralized database to provide a timely and integrated view of data. Secure channels would be used to protect the confidentiality and data integrity. Transactions would then be verified by accounting officers before posting to accounting books, thus providing front end users with more data for analysis.

收入數據的整合

為提高收入彙集的控制，本處在財務會計系統中加入一個新模組，處理來自各方的收入收據資訊。每日的收據資料會傳送至中央資料庫，提供一個實時性和整合觀。資料以加密方式傳送，以確保數據機密和完整性，經會計主管核實入賬後，為終端使用者提供更全面的數據，亦方便分析。

IT Governance

Establishment of PC Acquisition and Replacement Policy

With a view to better managing the existing PC replacement cycle from purchase through disposal, the new PC Acquisition and Replacement Policy was promulgated in August 2010. The policy, applicable to those PCs funded by the Group, would effectively stop users from making purchase of non-standard PCs which might have compatibility issues to the existing software and application systems. The policy has further provided clear-cut guidelines for PC acquisition and replacement within the Group.

Email message dissemination regulation

In order to regulate campaign promotion, donation appeal or other corporate news to disseminate within the Group's email domain through TWGHs Corporate Email System, a set of regulation with guidelines was issued in November 2010 to specify the way of performing massive mailing activities. This would ensure the orderly dissemination of corporate message via the email system without causing potential spamming acts or affecting the normal services of the Email system.

資訊科技的管治

訂立增購及更換個人電腦政策

於二〇一〇年八月正式訂立增購及更換個人電腦政策以規管現時個人電腦更換周期，政策適用於東華資助購買的個人電腦。新政策有效控制因使用不合標準的個人電腦而引至現有軟件和應用系統的兼容性問題，並為購買和更換個人電腦提供具體指引。

電子郵件傳送守則

於二〇一〇年十一月正式訂立電子郵件傳送守則與指引，訂定執行大量郵件傳送方式和相關服務的程序，透過東華企業電郵系統更有效執行宣傳活動、認捐呼籲或其他機構訊息的發放，使用者可以按照既定程序，利用電子郵件系統作為消息發送渠道而不會引至郵件濫發，影響系統正常運作和服務。

▼ System Support Services Provided for Various Divisions/Branches in the Year 2010/2011
二〇一〇/二〇一一年度為各部門提供的系統支援服務

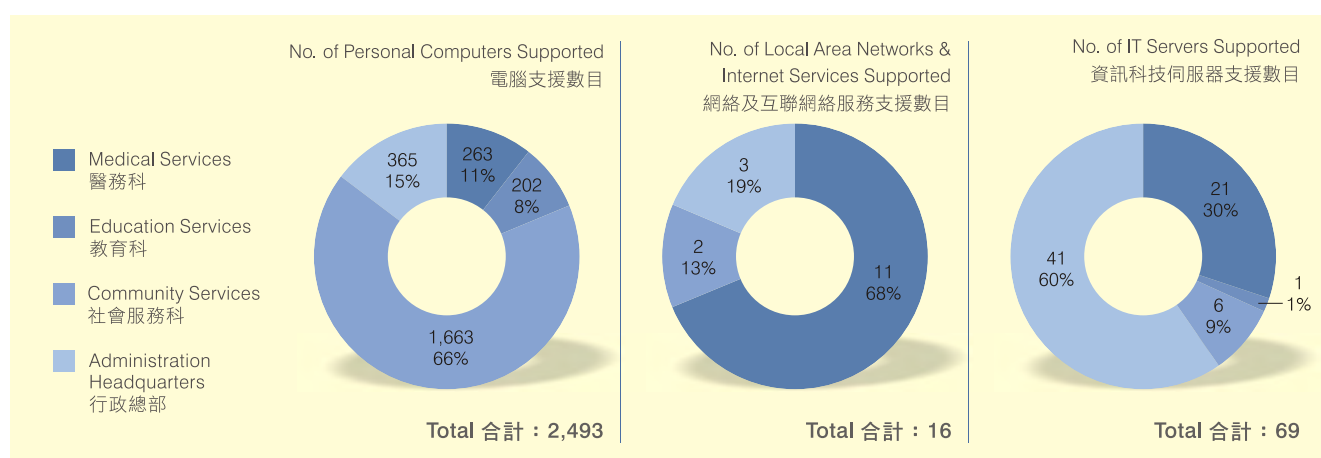
	Medical Services 醫務科	Education Services 教育科	Community Services 社會服務科	Administration Headquarters 行政總部
Number of Personal Computers Supported 電腦支援數目	263	202	1,663	365
Number of IT Servers Supported 資訊科技伺服器支援數目	21	1	6	41
Number of Local Area Networks & Internet Services Supported 網絡及互聯網服務支援數目	11	-	2	3

All IT computers and networks installed at the primary & secondary schools and CUTW for teaching purpose are excluded in figure.

不包括中小學及社區書院教學用途的電腦及網絡

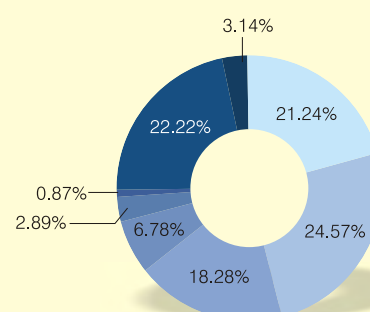
The network and Internet services of some education & community services centres which are not directly administrated by IT Branch has been excluded.

不包括部分非資訊科技處管理的網絡及互聯網服務



▼ IT System Operation and Support Services in the Year 2010/2011
二〇一〇/二〇一一年度資訊科技服務及系統支援服務工作

- IT Support Services 資訊科技支援服務
- System Operation Services 系統操作服務
- System Administration & Control Services 系統技術監控及協調服務
- System Management Services 系統管理服務
- Network Support Services 電腦網絡支援服務
- IT Training Services 資訊科技培訓服務
- IT Evaluation & Research Services 資訊科技產品估價及研究服務
- IT Procurement Support Services 資訊產品採購支援服務



▼ Usage of Application Systems and Internet Websites in the Year 2010/2011

二〇一〇／二〇一一年度應用系統及互聯網的使用

	Medical Division & Related Service Centres 醫務科及相關 服務單位	Education Division & Related Service Centres 教育科及相關 服務單位	Community Services Division & Related Service Centres 社會服務科及 相關服務單位	Other Internal Divisions/ Branches 其他科/處	Services for the Public 公眾服務
Human Resource Information System 人力資源系統	●	●	●	●	
Tenant & Rental Collection Information System 租戶系統				●	●
Financial Accounting Information System 財務會計系統	●	●	●	●	
Staff Leave Information System 員工休假系統	●	●	●	●	
Coffin Home Information System 義莊資訊系統				●	
Guest List Information System 嘉賓名單資訊系統				●	
Chinese Medicine Clinical Information System 中醫醫療資訊系統	●				●
Funeral Parlour Information System 殯儀資訊系統			●		●
Integrated Diagnostic & Medical Centre Information System 東華三院綜合診斷及醫療中心資訊系統	●				●
Well-women Clinic Information System 婦女健康普查醫療資訊系統	●				●
Donation Record Information System 捐贈記錄資訊系統				●	
Tung Wah Board of Directors' Information System 東華董事局資訊系統				●	
Fixed Assets Registration System 固定資產資訊系統	●	●	●	●	
Geriatric Dental Clinical Information System 長者牙齒保健資訊系統	●				●
Famous & Prominent Doctors in Traditional Chinese Medicine in China Internet Portal 中國中醫名院名科名醫信息服務網	●				●
Tung Wah Website 東華網站					●
TWGHs Corporate Intranet System 東華三院內聯網	●	●	●	●	
Elderly Home Management Information System 安老院舍管理系統			●		●
Computerized Tomography Imaging Centre Information System 電腦掃描中心資訊系統	●				●
Smart Queuing System for Chinese Medicine General Outpatient Clinic 中醫普通科門診自助登記系統	●				●
e-Leave System 東華三院網上假期系統	●	●	●	●	
TWGHs Corporate E-mail System 東華三院企業電子郵件系統	●	●	●	●	●
TWGHs Haemodialysis Centre Information System 東華三院血液透析中心管理系統	●				●
Self-service Attendance Registration with Octopus Payment System for Chinese Medicine Specialist Outpatient Clinic 中醫專科門診自助登記及八達通收費系統	●				●
TWGHs e-Appraisal System 東華三院電子考績報告系統	●	●	●	●	
Chinese Medicine Mobile Clinics Information System 中醫流動車門診服務系統	●				●