

A Validation Platform For Electronic Health Record Data Standards Conformity

For the Hong Kong Community Wide
eHealth Record Sharing:
Paving the Road to the Future

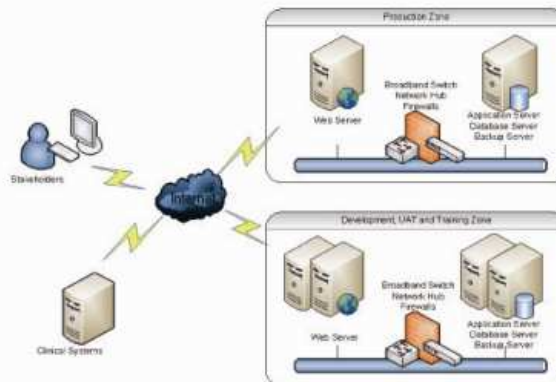




About the "Validation Platform" Project

The Food and Health Bureau (FHB) of the Government of the Hong Kong Special Administrative Region is developing a territory-wide patient-oriented electronic health record (eHR) sharing system that enables the sharing of eHR data. The objectives of the eHR Programme, amongst others, is to have the eHR sharing platform ready by 2013-14 for connection with all public and private hospitals, and to have eMR/ePR systems and other health information systems available in the market for private doctors, clinics and other health service providers to connect to the eHR sharing platform. FHB, and later the eHR Office, have been collaborating with stakeholders since 2008 to develop a strategy for the implementation of eHR, and to deliberate and address the institutional, legal and technical issues arising from the programme. The 2008 Digital 21 Strategy issued by the Office of the Government Chief Information Officer (OGCIO) also positioned eHR as one of the next generation electronic public services.

Therefore, FHB and OGCIO sponsored the eHealth Consortium Limited (eHCL) to implement a project named "A Validation Platform for Electronic Health Record Data Standards Conformity for the Hong Kong Community Wide Electronic Health Record Sharing: Paving the Road to the Future" (「電子健康記錄互通標準認證平台」試驗計劃) in April 2008.



Project Schedule



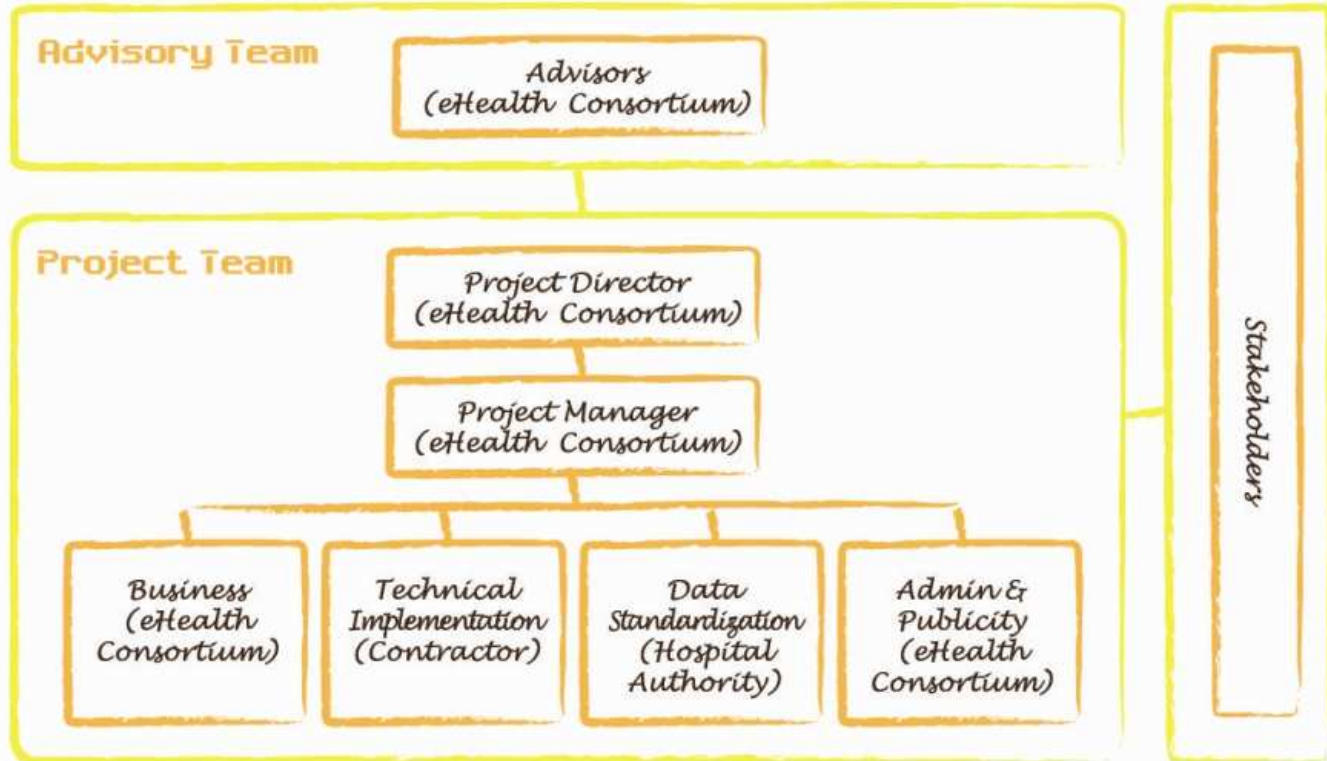
Project Aims

- * Provide an environment to test the conformity of eHR among different healthcare providers to the Hong Kong Territory Wide eHR Data Standard structure being developed by the Steering Committee on eHealth Record Sharing (EHRSC) of the Food and Health Bureau (FHB).
- * Test the technical feasibility of the sharing of health data among different healthcare providers in a preliminary manner, building the road forward to a genuine eHR sharing system.
- * Illustrate how the collaboration among various stakeholders would work, by stimulating them to work together with conjoint efforts in building the platform and working towards the same data standards.
- * Illustrate to the healthcare stakeholders the processes in building software and adjustments to make their healthcare data conformable to the territory wide standard.

Right: Validation Platform Production Web and Application Servers at work, allowing project stakeholders to submit and validate their ehealth record messages online for data conformity.



Project Organization



Project Stakeholders

eHealth Consortium has invited various healthcare providers to participate in the project as stakeholders, to provide de-identified patient records to test their data conformity and interoperability in the Validation Platform. They also provide valuable feedbacks on the fine tuning of eHR standards.

Existing Stakeholders



衛生署
Department of Health



Dr Vio & Partners
韋予力醫生醫務所



播道醫院
Evangel Hospital



HONG KONG
DOCTORS UNION
香港西醫工會



香港醫學會
THE HONG KONG
MEDICAL ASSOCIATION



養和醫院
Hong Kong Sanatorium & Hospital



醫院管理局
HOSPITAL
AUTHORITY



Quality HealthCare



聖保祿醫院
ST. PAUL'S HOSPITAL



St. Teresa's Hospital
聖德肋撒醫院

Recruitment of Additional Stakeholders

We value advice and comments from all ehealth stakeholders and welcome their participation in the next 12 months (1 June 2010 to 31 May 2011). If your organization develops your own clinical management system and would like to participate in this meaningful project, to see how collaboration between various stakeholders would work towards the same data standards, you are welcome to join the Project as additional stakeholders by contacting the eHealth Consortium at 3488 3762 or info@ehealth.org.hk!



Project Scope

1. Authentication & Authorization (AA)

Authentication and authorization involves the access to the Validation Platform with unique defined identity and access right control among different identities. Two-factor authentication mechanism is used which involves username, password, PIN plus smart card authentication.

2. Validation Checking (VC)

Validation Checking involves the submission of health record message in form of XML structure to the Validation Platform and the collection of submission acknowledgement and validation result from the Validation Platform. The Validation Platform provide different interface for stakeholder to submit health record message. The system interfaces include user interface (as in a web application), web service over HTTPS or secured FTP.

3. Compliance Reporting (CR)

Compliance Reporting involves statistical reports to be viewed regarding message validations performed.

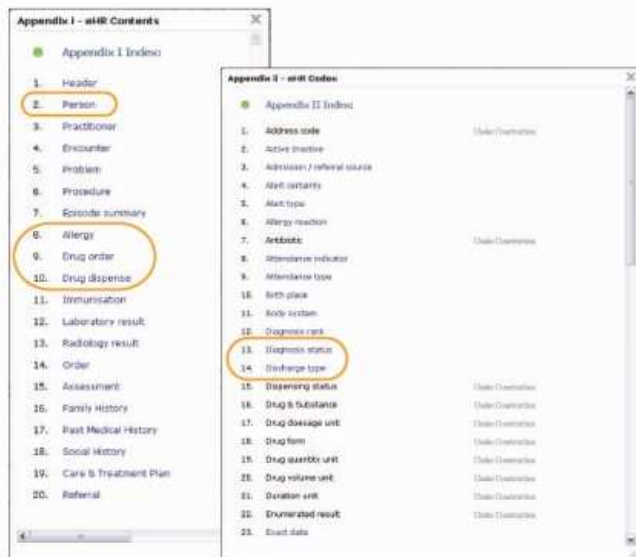


Top Left: Smart Card and Card Reader to be used in combination with username and password to authenticate users.

Bottom Left: Login screen of the Validation Platform.


Types of Data Elements Tested

- * Phase 1: Patient Identification, Case Summary
- * Phase 2: Drugs, Allergies, Diagnosis



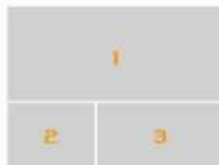
The "eHR Content Standards Guidebook" defines the content and the information standards for Hong Kong eHR, please visit section "Information Standards" in the eHealth Record Office website at www.ehealth.gov.hk.

Project Findings

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- * More and more healthcare providers are interested to test their data conformity and interoperability
 - * There lacks industry standards for some ehealth record data fields, eg drugs
 - * The stakeholders appreciate the Project's briefing sessions on the eHealth Record Data Interoperability Guide published by the Government
 - * The Project serves as a great opportunity for stakeholders to voice their opinions on eHR data sharing in the future eHR Platform

Project Highlight - Contract Signing Ceremony

After a tendering process, the project's technical implementation contract was awarded to PCCW Solutions Limited. A contract signing ceremony was held on 12 December 2008 at the Hong Kong Productivity Council.



1. Dr CP Wong (center), Co-chairman of eHealth Consortium Executive Committee, signed the contract with Mr George Fok (right), Managing Director of PCCW Solutions Ltd to kick off Phase 1 of the Validation Platform development. Dr Winnie Tang (left), Chairperson of eHealth Consortium Steering Committee, witnessed the occasion.
2. Mr Ray Cheung (center), Project Director of the Validation Platform project.
3. Ms Vicky Fung (second from left), Senior Health Informatician of Hospital Authority, Ms Theresa Yu (second from right), Assistant Secretary of Food and Health Bureau and Mr Peter Chan (right), Senior Systems Manager of OGCIQ.



Project Highlight - Lectures on Health Informatics Standards

Professor Yun Sik KWAK, an expert in eHealth Record Information Standards who was the Chairman of ISO Technical committee on Health Informatics (ISO/TC215) and is now a Visiting Professor of Medical Informatics of Kyungpook National University of South Korea, serves as the Validation Platform's Honorary eHR Information Standards Advisor.

Prof Kwak visited Hong Kong in December 2008 and conducted two lectures on the Health Informatics Standards and International Development of Health Informatics Standards.



1. From left: Dr NT Cheung, Chief Medical Informatics Officer of Hospital Authority, Ms Vicky Fung, Senior Health Informatician of Hospital Authority, Prof Kwak and Dr CP Wong, Chairman of Hong Kong Society of Medical Informatics.
2. Prof Kwak shared the experience in preparing and implementing information standards for the eHR.
3. Ms Vicky Fung delivered a speech.
4. The lecture received overwhelming response from healthcare sectors.



Project Highlight - User Acceptance Test and User Training

A briefing session on the process of the User Acceptance Test (UAT) was held on 3 June 2009 at PCCW Solutions' premises. Feedbacks during the UAT from projects stakeholders were valuable contributions in evaluating the system.

User Training that followed the UAT, also held in June 2009, provided participants a thorough, step-by-step walkthrough of the Validation Platform and hands-on exercises.



About eHealth Consortium Ltd

有關電子健康聯盟



About eHealth Consortium

Established since 2005, eHealth Consortium Limited ("eHCL") is one of the major non-profit making organizations in Hong Kong leading eHealth advocacy in the region and we are the prime agency bridging healthcare and IT industries to advance the development of eHealth in Hong Kong and Mainland China.

Over the years, our efforts are focused on three key areas, namely data standardization, education and capacity building, and facilitating pilot projects for the advancement of eHealth applications. We work closely with the healthcare and the ICT sectors to offer training programs, conferences and events for eHealth stakeholders.

Vision

Our vision is to create a well-integrated environment where the public health and patient information can be readily shared between the public and private sectors for the enhancement of the accessibility, quality and effectiveness of healthcare services in Hong Kong.

Mission

- * To bring IT and healthcare professionals together to facilitate and promote the use of IT as a key enabler in the healthcare industry.
- * To position HK strategically in providing a more accessible and effective healthcare system for the benefit of all through the use of medical informatics and Information and Communications Technology ("ICT").

有關電子健康聯盟

「電子健康聯盟」於2005年成立，為一個在香港註冊的非牟利組織，為醫護界和資訊科技界之間的合作建立橋樑，並致力推廣電子醫療科技的應用，藉此提升醫護服務的質素和效率。

在過往數年，「電子健康聯盟」的工作集中於三個主要領域：醫療資訊的標準化、人力資源的培訓和發展、以及推動電子健康的試點項目。特別在培訓方面，「電子健康聯盟」與各大醫療、資訊及通訊科技部門緊密合作，為推廣電子健康而舉辦不同類型的培訓計劃、學術會議、研討會及論壇。

願景

帶動醫療專業人員和資訊科技專業人員，共同推動和促進資訊科技在醫療行業的使用，並通過醫療信息及資訊科技的使用，為香港全民提供一個更方便和有效的醫療系統。

使命

致力為香港創造一個優良的醫療保健系統，使公眾健康的資訊、病人的記錄及病歷可隨時於公營部門互通，透過醫療資訊、資訊及通訊科技的應用，令醫療服務更和諧、更優質和更有效。



電子健康聯盟
eHealth Consortium Ltd

Founding Members 創會成員



Internet Professional Association (iProA)

iProA is a non-profit making professional organization founded in December 1999. It represents over 2,500 professionals from Internet related industries, including CEOs and senior executives from leading information technology enterprises. iProA's mission focuses on facilitating a seamless connection and communication between the ICT industry, the Government and the public community. Please visit website www.iproa.org for further information.

互聯網專業協會

互聯網專業協會成立於1999年，為非牟利專業團體。協會2,480多名成員來自互聯網的不同專業範疇，包括資訊科技業界翹楚公司的行政總裁及高級行政人員。協會專注於促進業界、政府及廣大市民間的溝通，亦立志為本地資訊及通訊科技業打造最佳策略，加強資訊及通訊科技在香港的發展及應用。詳情請瀏覽www.iproa.org。



Hong Kong Society of Medical Informatics (HKSMI)

Founded in April 1987 by a group of medical practitioners and informatics professionals with special interests in medical informatics and computing and communications. Two of the objectives of the Society includes: to promote the establishment of information infrastructure, applications and information content of Information Technology in Medicine; and, to promote the information society culture and knowledge of the health practitioners in Hong Kong. Please visit www.hksmi.org for further information.

香港醫療資訊學會

學會於1987年4月由一班對醫療資訊學及電腦及通信學有強烈興趣的醫生和資訊專業人士組成。學會的其中兩個目標包括：促進建立醫療資訊的基礎設施、資訊科技的應用和內容，以及促進香港醫療業人士的資訊學文化和知識。詳情請瀏覽www.hksmi.org。

Some of eHealth Consortium's Activities

Oct 2011	Greater China eHealth Forum 2011
May 2010	Phase 2 Rollout of Validation Platform for eHR Data Standards Conformity
May 2010	Press Release for the second "Survey on CMP Clinic Computerization Readiness"
Jan 2010	eHealth Training for Chinese Medicine Practitioners (Advanced Level) commenced
Oct 2009	eHealth Forum 2009
Oct 2009	eHR Shipshape – Symposium on HL7 & Health Data Standards
Sep 2009	Press Briefing for the first "Survey on CMP Clinic Computerization Readiness"
Aug 2009	eHealth Trainings for Chinese Medicine Practitioners (Basic Level) commenced
Jun 2009	Phase 1 Rollout of Validation Platform for eHR Data Standards Conformity
Jun 2009	Press Briefing for "Survey on Private Doctors Clinic Computerization Readiness"
Dec 2008	Technical lectures on eHealth Data Standardization by Prof Yun Sik KWAK
Mar 2007	Roundtable discussion with Private Hospitals on the "Future Strategies for Developing a Common Interoperable Electronic Health Record System in Hong Kong"
Sep 2006	eHealth Forum 2006
Aug 2006	Essential eHealth Skills Workshop for Private Medical Practitioners

Please visit our official website at ehealth.org.hk for the full list of eHealth Consortium's activities.

部分電子健康聯盟活動

2011年10月	2011大中華電子健康及醫療信息化論壇
2010年5月	電子健康記錄互通標準認證平台：第二階段工作完成
2010年5月	「第二次全港中醫師診所電腦化趨勢調查」新聞發佈
2010年1月	中醫藥從業員電子健康培訓課程：深造班開始
2009年10月	2009電子健康論壇
2009年10月	井然有序的電子健康記錄：HL7標準與健康數據標準研討會
2009年9月	「首次全港中醫師診所電腦化趨勢調查」新聞發佈
2009年8月	中醫藥從業員電子健康培訓課程：基本班開始
2009年6月	電子健康記錄互通標準認證平台：第一階段工作完成
2009年6月	「私家診所電腦化調查」新聞發佈
2008年12月	由郭植然教授主講「電子健康數據標準化技術講座」
2007年3月	與私家醫院舉行圓桌會議：商討開發一套互通電子病歷的電子系統
2006年9月	2006電子健康論壇
2006年8月	為私家醫生及醫護人員開辦「電子健康技能講習班」

請到我們的網站ehealth.org.hk瀏覽詳盡的電子健康聯盟活動列表。

eHealth Consortium's Event Highlights

電子健康聯盟活動花絮





eHealth Forum

The eHealth Forum is the signature event of eHealth Consortium, a multi-sectoral collaboration in Hong Kong and neighboring regions to promote the application and awareness of using information technology (IT) in maintaining health in the community.

The two-day Forums have provided superb opportunities for networking, sharing on new initiatives and dialogues with key industry players. More than 500 delegates in 2006 and more than 700 delegates in 2009 were brought together, ranging from national policy makers, professionals from healthcare and health informatics industries, as well as ICT industry players from around the world.

In 2011, eHealth Consortium will co-organize the inaugural "Greater China eHealth Forum" in Hong Kong with the China Hospital Information Management Association (CHIMA), with aims including the promotion of ehealth development, project collaboration and experience sharing among Mainland China, Hong Kong, Macau and Taiwan.

電子健康論壇

電子健康論壇是本聯盟一個多部門、跨地區的主題活動，旨在推廣資訊科技在醫療業界的應用。

為期兩天的論壇，提供極好的機會讓業界建立網絡、分享新倡議及與行內專家對話。論壇於2006年吸引了超過500多名來自世界各地的專業人士出席，2009年更有超過700人聚集一堂。參會人士包括國家政策制定者、來自醫護、醫療資訊業以及資訊及通訊科技業的專業人士。

2011年，電子健康聯盟更將與中國醫院協會信息管理專業委員會(CHIMA)合作，於香港舉辦首次「大中華電子健康及醫療信息化論壇」，其目的為促進兩岸四地在相關電子健康計畫或專案發展上的深入瞭解和經驗交流。

eHealth Training For Chinese Medicine Practitioners (CMPs)

In March 2009, the Internet Professional Association (iProA) has been awarded by OGCI0 a project to organize a series of eHealth Training Programs for CMPs. iProA has sought the support of eHealth Consortium, in areas such as project management and coordination, and organized this training program in cooperation with the Association of Hong Kong & Kowloon Practitioners of Chinese Medicine and the Sin Hua Herbalists' and Herb Dealers' Promotion Society.

The training objectives are to help CMPs by uplifting their IT capability, improving their operation efficiency and business sustainability, and ultimately, enhancing their readiness to participate in the Territory Wide eHealth Record Sharing System, initiated by the HKSAR Government.

The training program was designed to comprise of both basic level and advanced level lectures and workshops, in order to suit the needs of CMPs with different level of IT literacy.

中醫藥從業員電子健康培訓課程

政府資訊科技總監辦公室遂於2009年3月資助互聯網專業協會推行「2008/09年度電子商務推廣計劃——中醫藥從業員電子健康培訓課程」計劃。此計劃得到電子健康聯盟的全力推動，並獲得港九中醫師公會及新華中醫中藥促進會的支持。

計劃的目標不單培訓中醫師如何在日常工作中使用資訊科技，藉以提高日常的工作效率及營商上的可持續性及競爭力，而且希望讓他們認識到全球電子健康的新趨勢，最終可以配合未來全港醫療界應用資訊科技及電子健康記錄的大趨勢。

該培訓計劃包括基本及深造兩個級別的講課及工作坊，以配合不同中醫藥從業員的資訊科技知識。





HL7 Hong Kong

The inauguration of HL7 Hong Kong, an international affiliate of the global authority on standards for interoperability of health information technology, took place in October 2009 at the eHealth Forum 2009 at the Hong Kong Academy of Medicine. The establishment of HL7 Hong Kong is recognized as one of the most important milestones in unifying eHealth development in Hong Kong.

The eHealth Consortium has the honor to sponsor, together with the Hospital Authority, the "eHR Shipshape – Symposium on HL7 & Health Data Standards" organized by the eHealth Record Office of Food and Health Bureau and HL7 International. The Symposium, held in the Ruttonjee Hospital in October 2009, was a full house.



HL7 香港

電子健康資訊互通標準國際權威HL7，已於2009年10月假電子健康論壇舉行香港分會成立典禮。HL7香港分會的成立，在香港的電子健康統一發展中被認為是最重要的里程碑。

由醫院管理局贊助，食物及衛生局轄下之電子健康記錄辦公室及「HL7國際」主辦的「井然有序的電子健康記錄：HL7與健康數據標準研討會」已於2009年10月假律敦治醫院演講廳舉行，當日反應熱烈，座無虛席，各講者及到場嘉賓皆積極發表意見，共襄研討。

電子健康聯盟有幸參予其盛，聯同醫院管理局共同贊助該研討會。



Membership Drive

We cordially invite you and your organization to participate in the development of eHealth by joining the Consortium as a member! Contact us at info@ehealth.org.hk or visit our website at www.ehealth.org.hk for details.

會員招收

我們誠摯地邀請您和您的機構加入本聯盟成為會員，參與電子健康的發展！詳情請瀏覽本聯盟的網站 www.ehealth.org.hk 或電郵至 info@ehealth.org.hk。

Newsletter Subscription

To receive news and updates from eHealth Consortium, please email info@ehealth.org.hk.

會員通訊

如欲獲知電子健康聯盟的最新消息及電子季刊，請發電郵至 info@ehealth.org.hk。

Career and Volunteering

Healthcare expertise and volunteers are the heart of the eHealth Consortium. For information about joining us, please contact our Secretariat or our Human Resources at hr@ehealth.org.hk.

工作及義工機會

醫療專家和志願者是電子健康聯盟的核心。如欲加入我們的行列，請電郵至 hr@ehealth.org.hk 與我們人力資源部聯絡。



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