

Dr. HO Chung Ping, JP, MH Ehealth forum 20111008





Medical Information Exchange

- 2002 HKMA Study Group on Medical Information Exchange
- Exchange of medical information in the medical profession
 - Improve communication ->improved patient care
 - Laboratory tests need not be repeated
 - Records integrity
 - Improve patient safety



- Data needs to be computerized
- Data needs to be standardized
 - Eg Upper respiratory tract infection, flu, influenza, URI
 - Eg ibuprofen, brufen, uni-profen
- Efficient and secure means of communication
- Data can be re-used after transfer



Unique situation in Hong Kong in medical care delivery

- 90% of the hospital patients managed by the Hospital Authority
- 90% of the primary care service provided by the private doctors

 Data information exchange is essential for a successful electronic health care system



Problems in private sector

- software and hardware inadequate
- No data standardization
- Private doctors entered medical records manually
- A good clinic management system essential

The HKMA dream 2002

Submission to Dr William Ho

- c.c.: Secretary for Health & Welfare (Attn: Mr. Thomas Yiu, Fax 2840 0467)
- Dr. Margaret Chan, Director of Health
- Dr. Fung Hong, Chairman, Health Information Work Group
- Dr. Nancy Tse, Chairperson, Operational, Governance and Business Work Group
- Dr. C.C. Luk, Chairman, Privacy & Legal Work Group
- Ms. Barbara Broud, Chairman, Information Technology Work Group

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HKMA proposal 2002

The Hong Kong Medical Association has developed a clinical management software (HKMA CMS ver 2) for her members and organized seminars in PKI and other related issues in the past as an effort to promote use of IT in medical practice. We propose that the HII authority should work with HKMA to upgrade the software so that the user can use it to manage clinic routine as well as to connect to the HII web server.

The TaoYuan Project - HKMA CMS 3.0 2007

Dr. HO Chung Ping, MH Chairman, TaoYuan Project Team Chairman, IT Committee

> 何仲平醫生 桃園計劃工作小組主席 資訊科技委員會主席

The TaoYuan Project 桃園計劃

- A project to develop an Open-Source, clinic management system
- HK\$999,580 Funding from the OGCIO
- Two years in development
- Free-of-charge to all doctors in HK

TaoYuan Project 桃園結義

- 東漢末年,天下大亂 引出了三位英雄。
- "男子漢大丈夫,不思為國出力,在這裏 以其麼氣?"
- 兄弟三人齊心,果然 作出了一番驚天動地 的事業。





Advantages of HKMA CMS 3.0

- Open-Source system
- Standardized data format
- Multi-purpose platform
- Ability to connect to other medical information systems in future, e.g., HA, private hospitals, eHR and the ePR
- Free of charge to doctors of the world

Launching Ceremony 28 August, 2009





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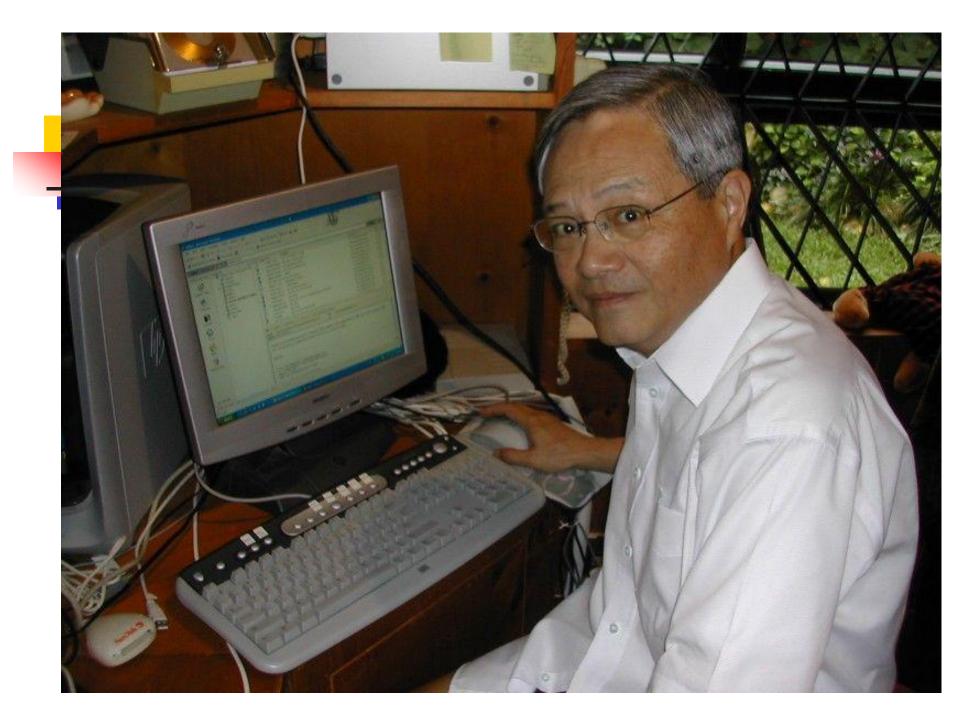
Dr Ho Chung Ping 2006 eHealth Forum 20060916



- Joint Project between the HKMA and the Hong Kong Canossa Hospital.
- Pilot project to study the communication between the hospital and a 19 private doctors through secure internet connection
- The doctors in the group can view the records of their patients through computers at homes or in their offices.

the YingZheng Project 2006

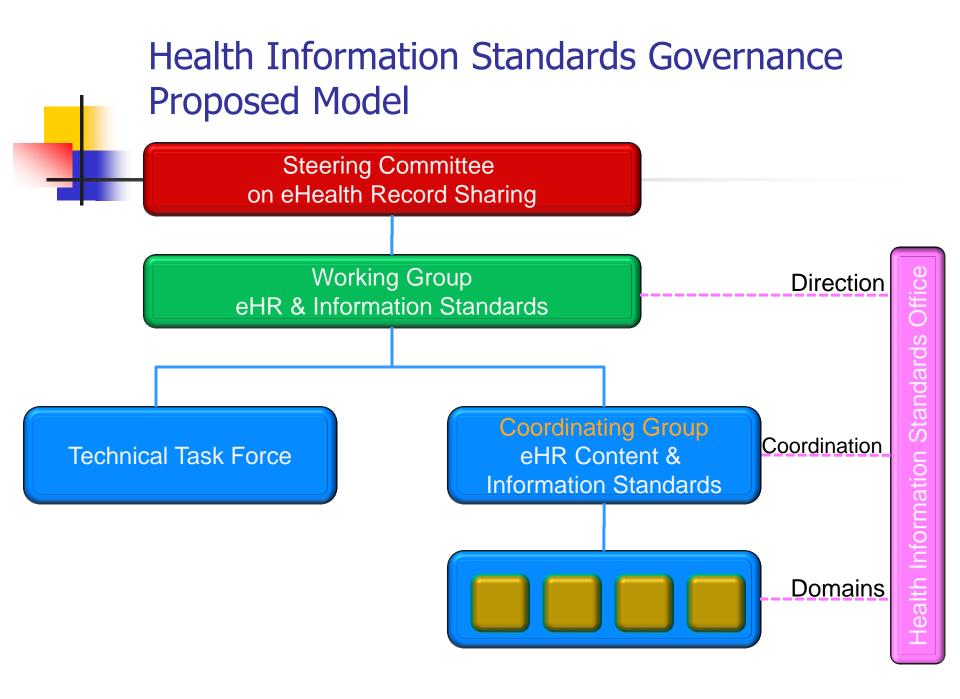






Grand plan

- The grand plan is HOLISTIC Medical information exchange
- All use the same terminology, same data structure, same messaging standard
- Exchange between private and public doctors essential





Hong Kong Special Administrative Region Wednesday, 7th October 2009

Organizers





www.eHR-shipshape.org









Task force on medical information standards





Physical and cultural divide

- HA CMS 2.0
 achieved data
 standardization,
 advance and
 reliable
- HA doctors younger
- Medical knowledge up to date

- Many private clinics not computerized, only 500 HKMA CMS
 3.0 installed
- Private doctors older in average
- Private doctors more experienced (?)

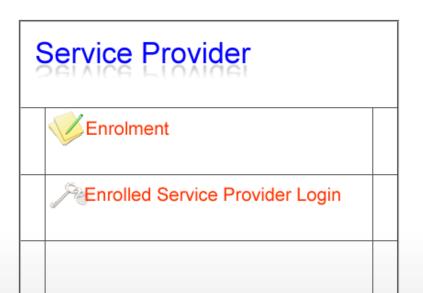


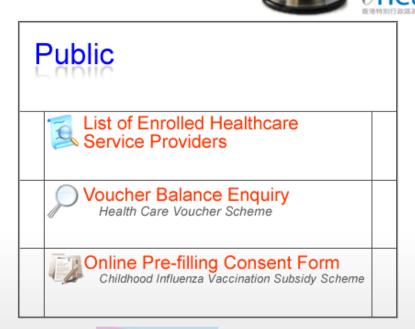
Public health Schemes

- Current public health schemes include eHealthcare Voucher Pilot and various Vaccination Subsidy Schemes
- Reimbursement by electronic means
- Doctors have to log on to web-based electronic platforms to do the submission



&Health System









Contact Us

預防人類豬型流感 Prevention of Human Swine Influenza

This page is optimised for viewing in 1024 x 768 resolution.

hov.gov.hk. https://apps.hov.gov.hk/hosp/login.aspx?lang≔en











CHealth System









User Manual



Useful Link



FAQs



Contact Us



Easy Guide



Download Area



Release Notes

Service Provider ID / Username

Password

Token Passcode

Account Type

Service Provider C Data Entry Account

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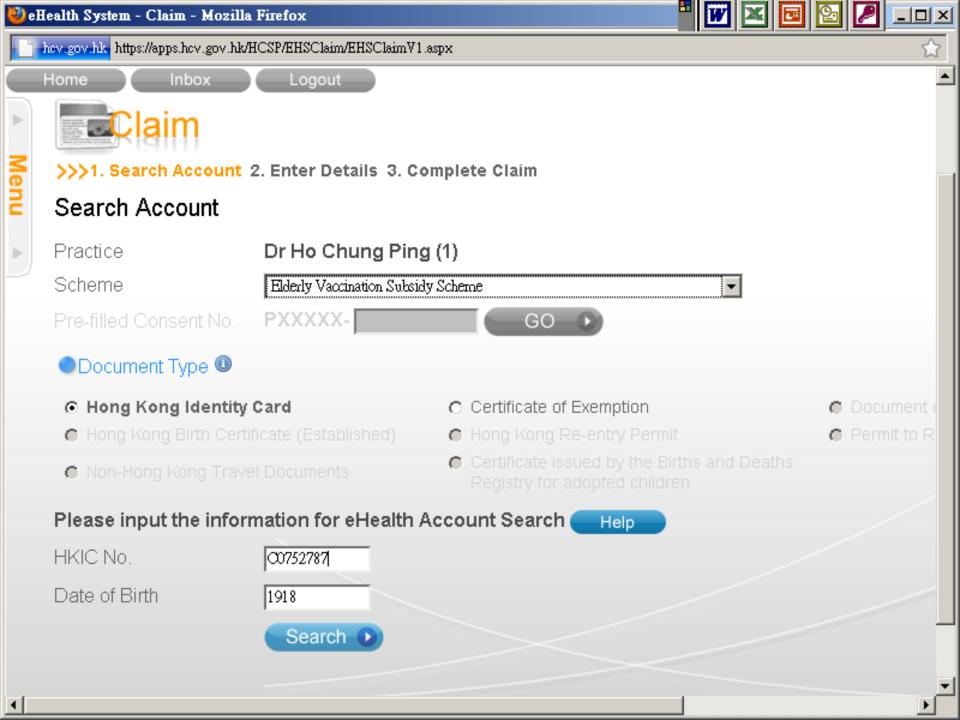


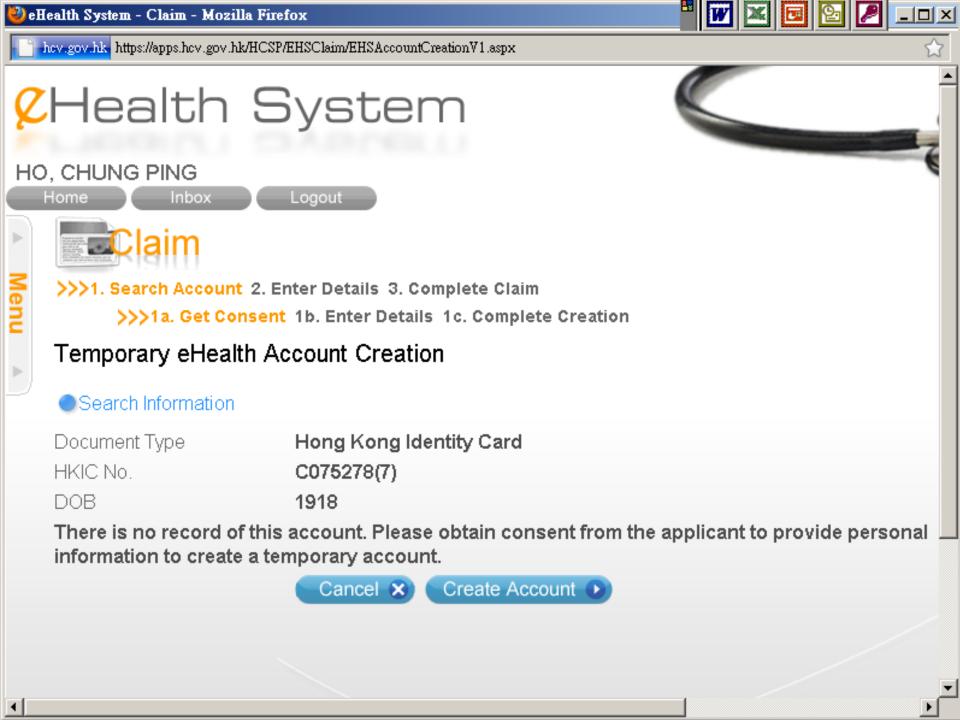


Forgot "Password"

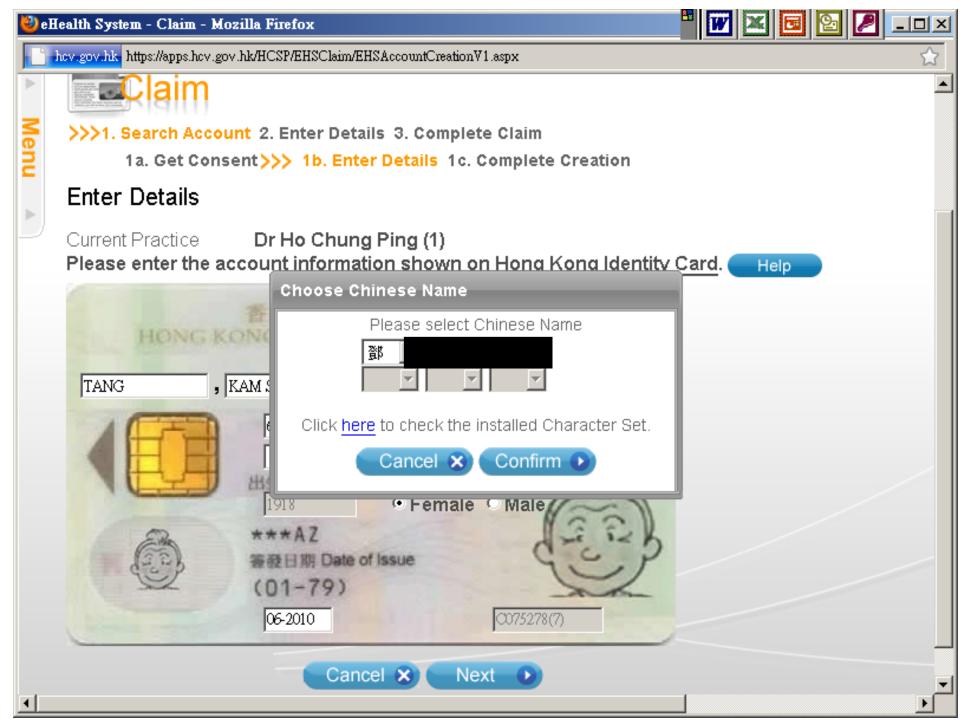


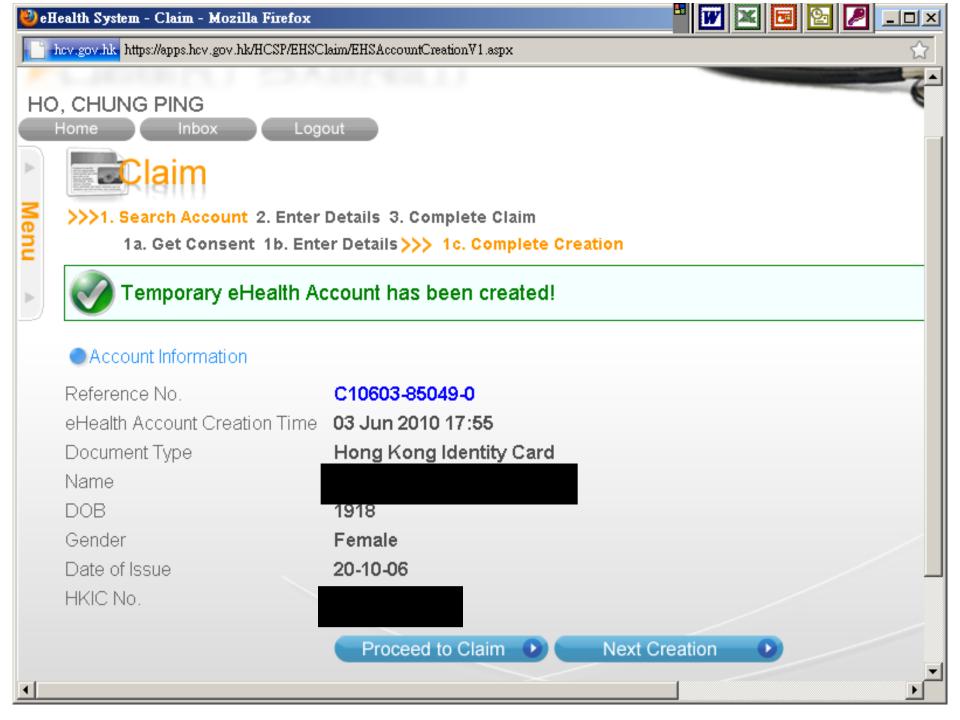
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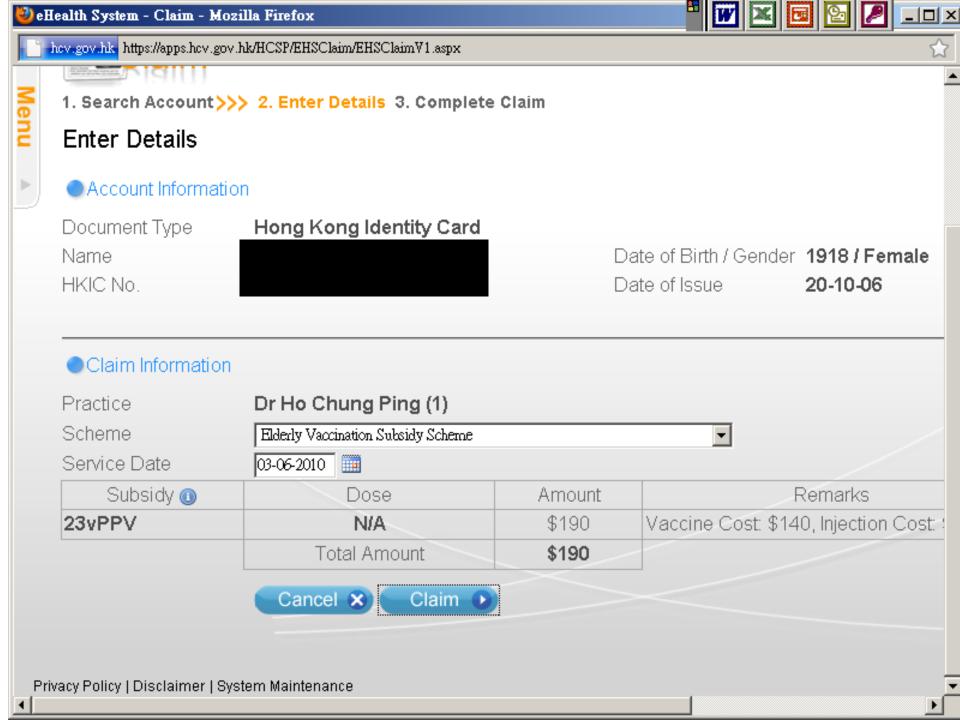


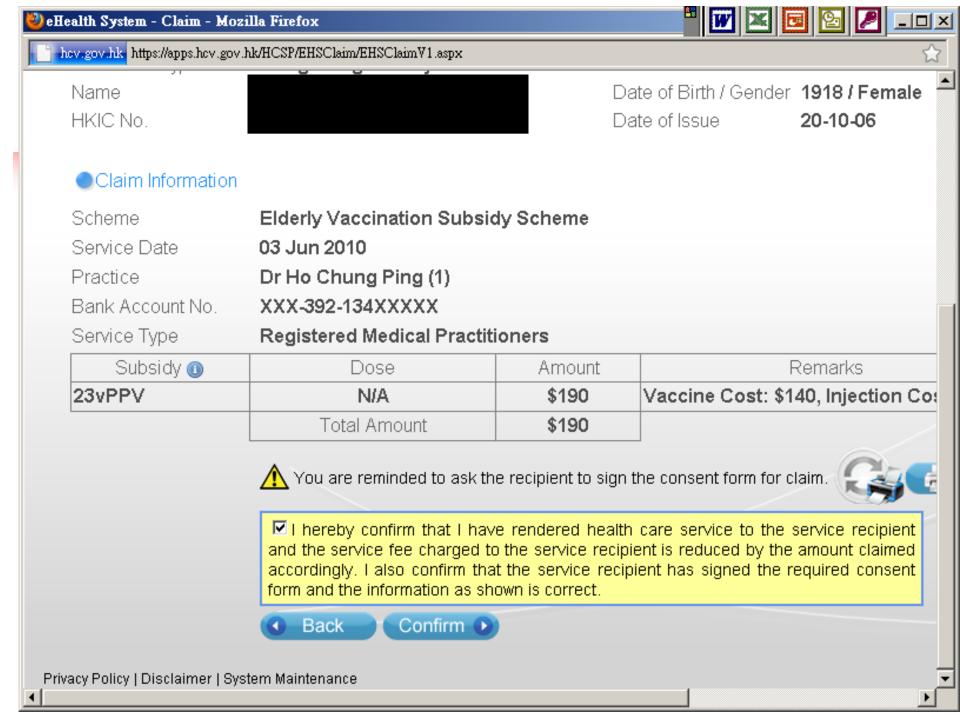


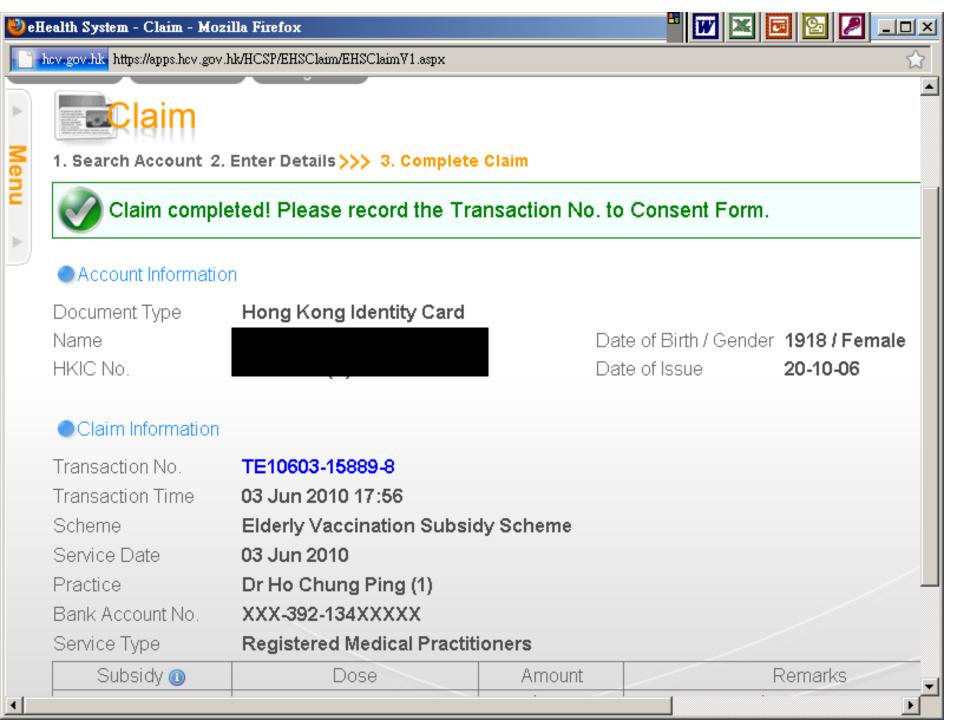


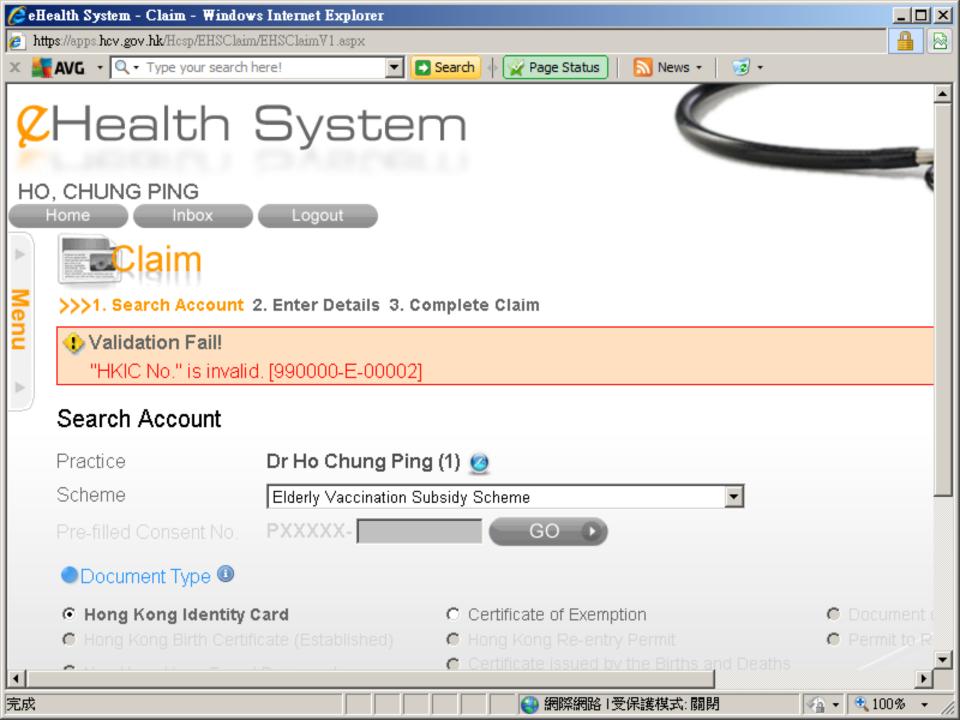


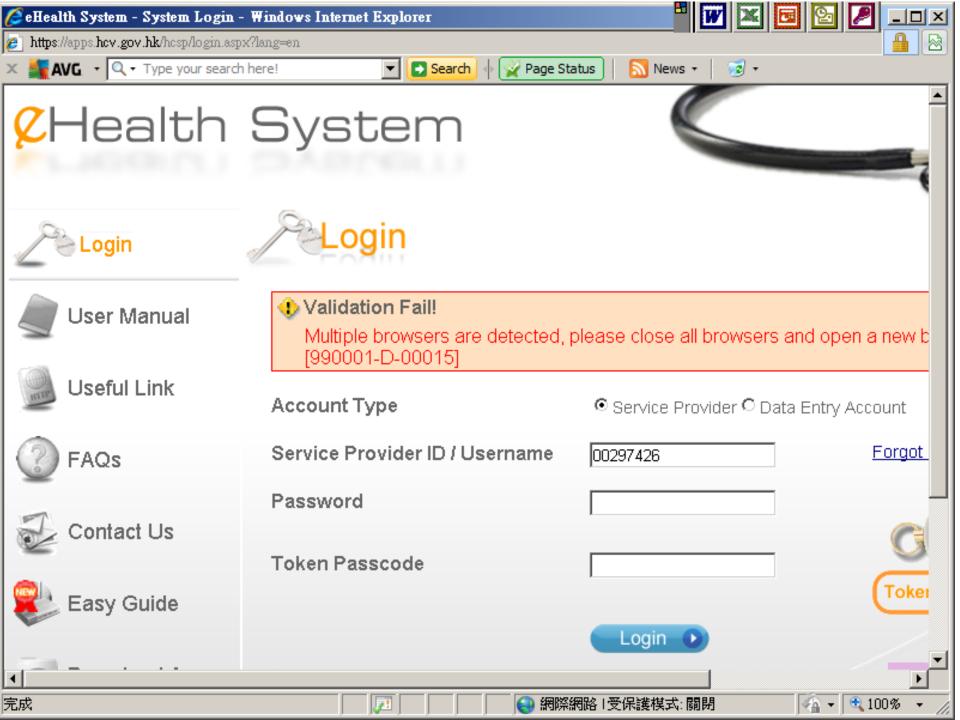


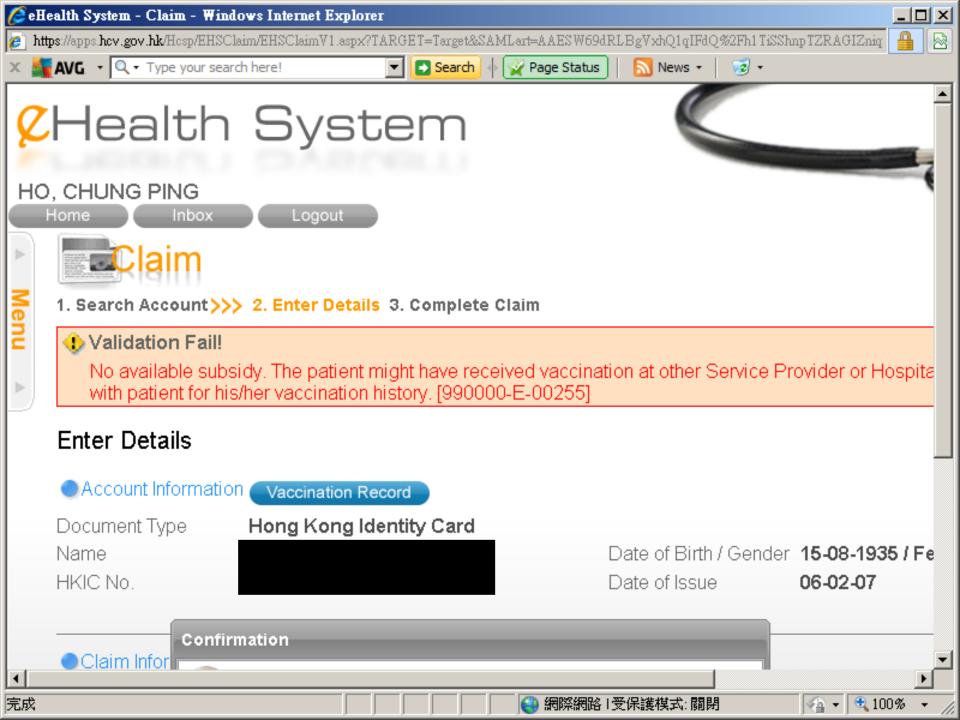














- Data communication slow, ways to enhance the flow is needed
- Improve in efficiency
- Security needed to be maintained

"When there is a divide, you build a bridge"

The Wuhan Bridge

- 1949 People's Republic of China (led by Chairman Mao)
- 1955 the first bridge built across the Yangtse
- 一桥飞架南北,天堑 变通途



The HKMA Wuhan project 2009 武漢計劃

Dr. HO Chung Ping, MH Chairman, Chairman, IT Committee 何仲平醫生 資訊科技委員會主席



HKMA Wuhan Project

- HK\$2,956,000 Project funded by eHealth Office
- Integration with e-voucher and other services
- Integration hub for medical information exchange
- Training Program for doctors using the HKMA CMS 3.0





- By integrating various services with the HKMA CMS 3.0, doctors can log on with the CMS
- the necessary information for the schemes can be captured and reported automatically
- Workload of the doctors can be reduced significantly

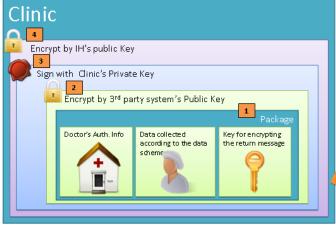
Authentication

- IH stores a list of authenticated clinics which are using CMS.
- Authenticated CMS system can gain access to the services provided by IH.
- 3rd party systems can simplify their authentication framework by trusting and using the authentication framework provided by IH.

Data Security

- Multi-level point-to-point encryption using public-private keys.
 - CMS, IH and 3rd party systems will each see specific information intended for its consumption.
- Data from CMS to 3rd party systems can be encrypted for 3rd party systems consumption only, such that IH cannot look into the data.
- Return data can be optionally encrypted.

Sample Exchange:



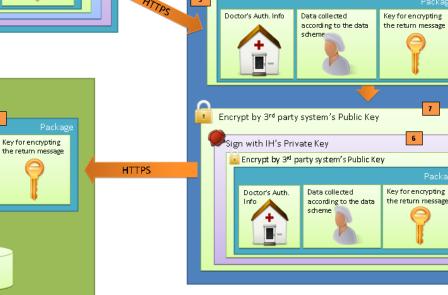
3rd Party System

Data collected

according to the data

DB

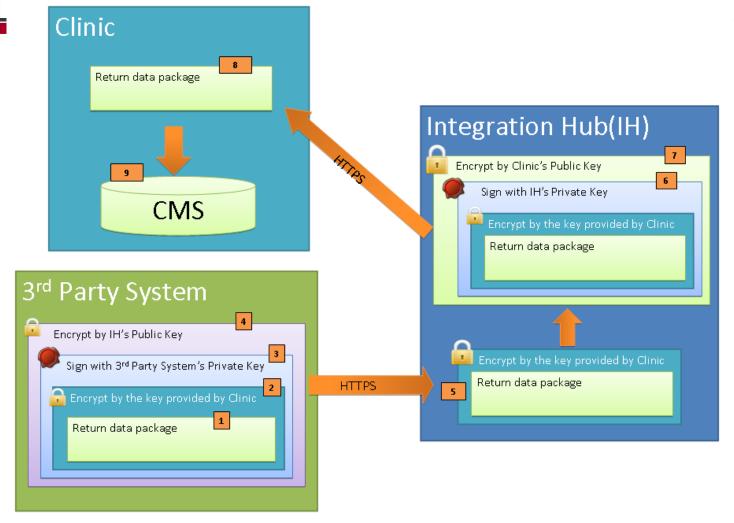
Doctor's Auth. Info

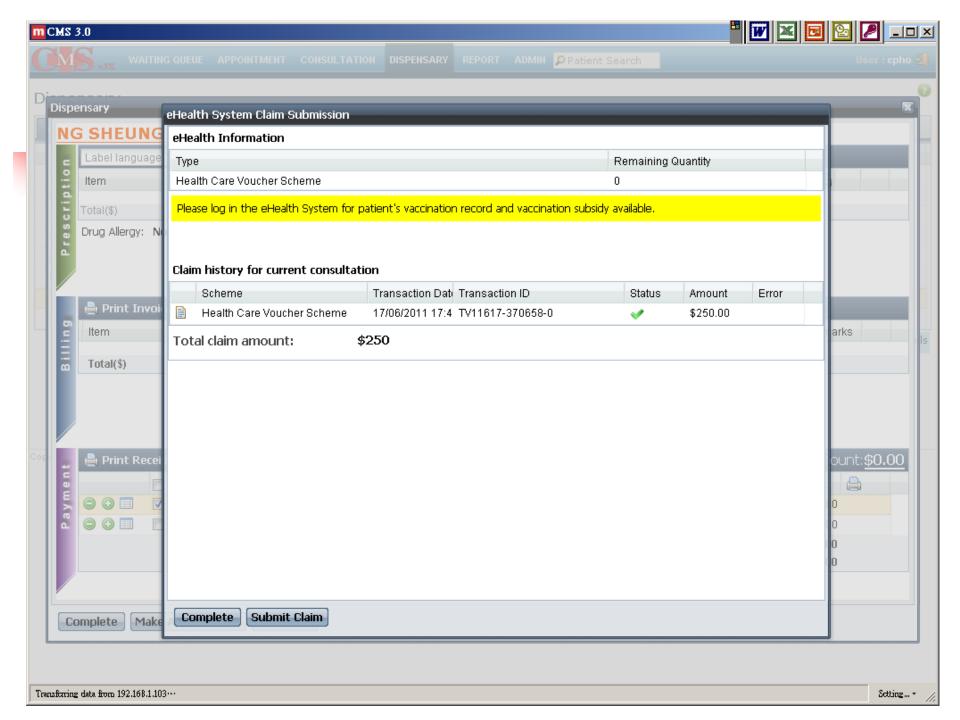


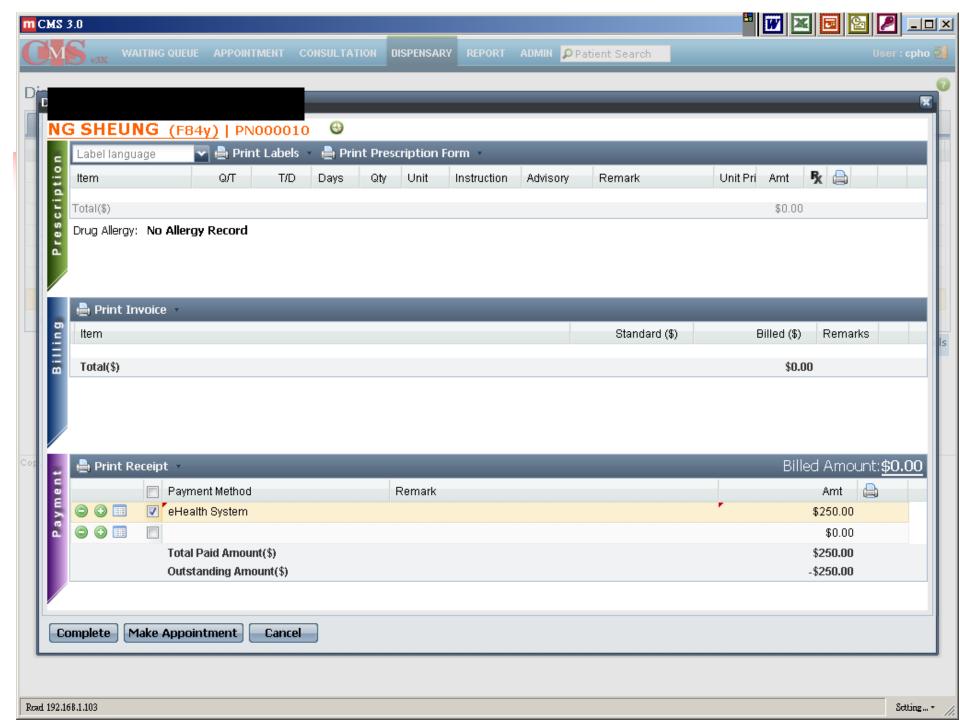
Integration Hub(IH)

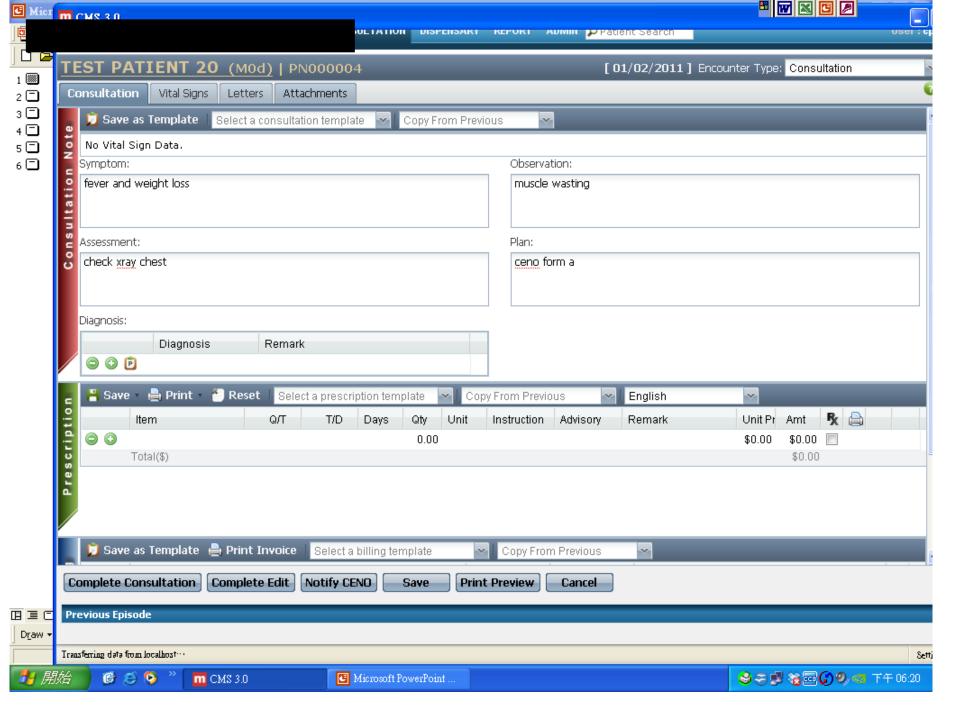
Encrypt by 3rd party system's Public Key

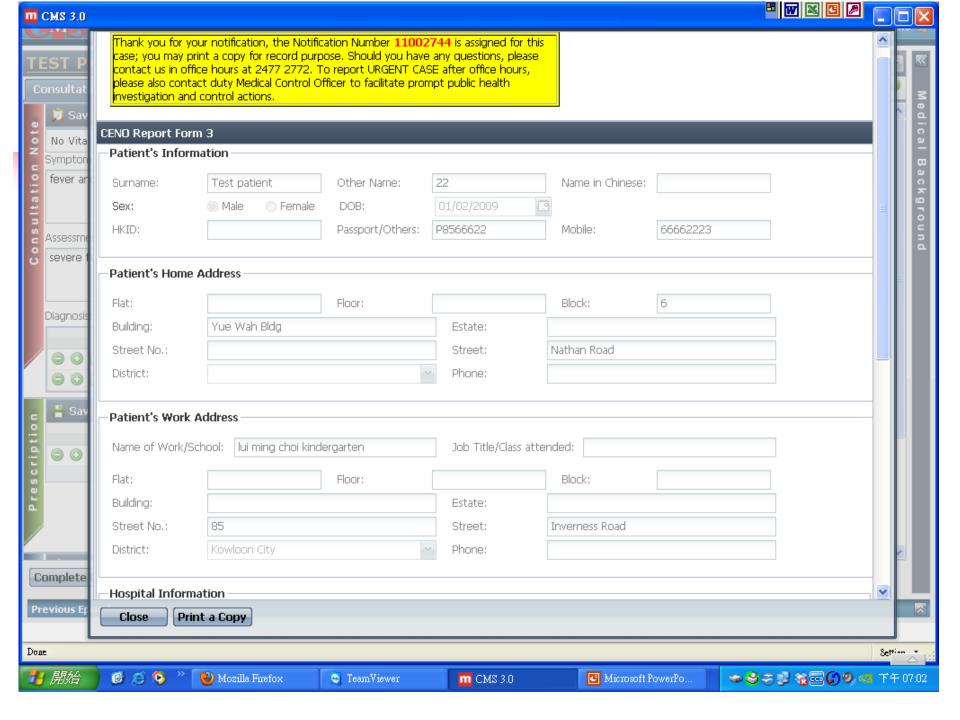
Sample Exchange:











The Integration Hub 'Wuhan Bridge'

- 1. An open standard for information exchange among healthcare service providers.
- 2. An infrastructure for allowing different healthcare providers to exchange electronic information conveniently and securely.
- 3. An infrastructure for reporting of notifiable diseases to the CENO of the Department of Health.



- eHealth Record Office, FHB
- The OGCIO
- HA IT teams
- The HKMA Wuhan Squad







