



# Linking Health Information Systems to Universal Health Coverage

Annie Chiu

Annie Chu discussed the linking of health information systems to universal health coverage (UHC). According to Ms. Chu, there are three dimensions of UHC that need to be considered namely; population (who is to be covered?), services (which services are to be covered?), and direct costs (proportion of the costs covered). She emphasized the need for reliable, quality, and timely data. She also said that one must go beyond monitoring and evaluation and see the improvement of health quality as well as the distribution of health outcomes and its impact. Lastly, she pointed out that UHC is not the effort of a single agency or sector alone but rather, it is a collaborative multi-sectoral approach.

## ICT FOR UHC

Jyotsna Chikersal

Universal Health Care (UHC) does not equate to financial risk protection alone. This should be seen together with the effective delivery of quality health services coverage. UHC can aptly be defined as "All people receive the health services they need without suffering financial hardship". Measuring the success of UHC requires a framework for selection of health services and financial systems coverage indicators at all levels of health delivery system. As a prerequisite to this, however, is a health information system that can provide accurate and timely information for the countries to know if UHC is successfully being implemented.

HIS can help minimize losses and monitor wastage due to unneeded interventions, duplication and clerical errors. In addition, HIS, once linked to financial system can enhance quality of care. Sharing of information between these systems can allow for a positive quality improvement feedback loop. Hence, while development of comprehensive, interoperable HIS is still at its

infancy, it is important that countries start design process early.

# Developing a National eHealth Standards Framework – “A Storytelling Approach”

Derek Ritz

Derek Ritz talked about developing national eHealth Standards. His presentation centered on the different “viewpoints” of enterprise architecture and tying it all together. He also presented the 5 Cs of eHealth standards and these are Content, Coding, Communications, Confidentiality, and Continuity of Care. Derek gave a case scenario to give the attendees of the breakout session an idea on how to develop a national eHealth Standard. In a nutshell, a story or medical case is analyzed to gather “patterns” and “data” from it which is then transformed into a profile.

## Interoperability and Application of Health Informatics Standards in Malaysia

Khadzir Sheikh Ahmad

Dr. Khadzir Sheikh Ahmad shared his experiences with regards to the implementation and application of a health informatics standard in Malaysia. He gave a brief explanation of interoperability and its importance in developing a standard in Health Informatics. He also gave an overview on the creation of the Malaysia health data dictionary and shared the strategies employed in its creation. ([www.openhdd.org](http://www.openhdd.org))



### **Standardizing Terminologies through Health Data Dictionary**

Cees Hesp

Cees Hesp of PharmAccess tackled standardizing terminologies through a Health Data Dictionary. Mr. Hesp gave an illustration showing the difference of having a standard versus having no standards. He also gave the advantages of using a standard and discussed OpenHDD. According to him, openHDD helps in documenting, organizing, and publishing standards. ([www.openhdd.org](http://www.openhdd.org))

### **Overview of the IT4UHC Continuum, The Situation in Asia on Technical Assistance Needs**

Caren Althausen

The focus of this plenary discussion is the challenges and opportunities for South-South Collaboration in the technical assistance of developing countries towards Universal Health Coverage (UHC). The objectives of PATH's Technical Assistance Needs Assessment Survey include reviewing of the current state of IT for UHC in 11 GIZ focus countries, and then analyzing and synthesizing the determined technical assistance needs for UHC information systems. Countries with advanced experience in IT utilization for the achievement of UHC would then be invited to assist developing countries in their efforts through South-South Collaboration, since the use of ITs would be very advantageous for the national-scaling of their health coverage schemes. The speaker proceeded with the presentation of the National Health Coverage Process Framework, which explains the relationship among the core elements determined by experts that are involved in a nation's efforts towards UHC. She then proceeded with the presentation of the Country IT4UHC Maturity Model, which is intended to help group countries together based on their relative progresses towards the attainment of UHC. Afterwards, she presented the key themes of their collected country feedbacks regarding technical

assistance needs. She then ended her discussion with the presentation of seven (7) recommendations for their development partners.

### **JLN Information Technology Track: Collaborating Across Countries for Health Insurance Information Systems**

Kate Wilson

Kate Wilson of the Joint Learning Network introduced JLN's approach for the achievement of UHC, and then stated that they have already helped 10 countries over the last 3 years towards this goal. She then discussed the fact that problems arise because IT projects usually start in their development and deployment phases. She stated that what is needed is to give more focus on the analysis and design phases, which should be conducted at the beginning of every project. She then proceeded with the discussion about the importance of determining functional requirements in the development of an IT project. She also discussed about the JLN's Collaborative Requirements Development Methodology (CRDM) for the determination of these requirements.

### **The Role of Hospital Information System in IT4UHC and Using OpenMRS**

Shaun Grannis

Shaun Grannis of the Regenstrief Institute of the Indiana University gave an introduction about the OpenMRS, as well as a brief discussion about its origins. He then proceeded with a discussion about OpenMRS' customizable concept dictionary, the forms that can be driven by this IT platform, and its modular design. He also presented an example of a hospital system that uses OMRS, the Raxa EMR that was developed by HISP India. Afterwards, he



discussed the advantages of utilizing ITs for the achievement of UHC.

## Use of Smart Cards for Beneficiary Management in SHI SCHEMES

**Nishant Jain**

Nishant Jain aptly opened the discussion by talking about the context behind the development of Social Health Insurance (SHI) in India, more popularly, Rashtriya Swasthya Bima Yojana (RSBY), which readily set the mood for the session. While there are several driving forces, he says that, ultimately, it boils down to the lack of the government's ability to provide quality health care for their less fortunate citizens. Hence, right at the onset the group was able to relate to the Nishant's experience and a lively exchange ensued.

As he discussed the various components of the system, Nishant stressed that it's not just the technology per se, but it is also the people and the processes involved. He discussed the many mechanisms within the system, from the enrollment to the actual claiming process. What's striking about their strategy is the amount of attention and thought they gave to data security and verification of patient identities, for example – both of which are key issues anywhere in the world.

Based on their latest evaluation in 2012, 90% of enrolled and hospitalized beneficiaries spent no money for hospitals within the latest policy period. Today, roughly 120 million citizens are registered members and are covered by RSBY.

## Introduction to an eClaims System and Possible Efficiency Gains

**Perry Nelson**

The National Health Insurance Association (NHIA) was established in Ghana when Act 650 was passed by the parliament in 2003. Following this, the National Health Insurance Scheme rolled out. By 2005, 145 district schemes were operational. Since then, Perry and his team have been working to improve the system continuously to better

address the growing needs of the population, optimize the system, and expand their reach to all regions.

2012 was the break-through year for NHIA when the NHIA Act of 2012 was passed, creating "one big happy family" of 165 district offices, and subsequently building a better structure for the implementation of NHIS in Ghana. They were also able to establish Claims Processing Centers (CPCs), where, as the name implies, claims submitted by the various district offices are processed, centrally, then submitted for NHIA payment.

Essentially, Perry described the journey of Ghana towards automation, by starting with an identified problem. The manual processing was not only taking too long but also taking too much paper to accomplish. With an average of 300,000 claims in a month, with each claim having about 5 pages each – that's about 15,000,000 sheets of paper monthly. Without even counting the time spent to process each, it's easy to see that a lot of resources are consumed and too much is just never a good thing. So carefully, they dissected the process and worked towards the solution until they developed what is now the eClaims.

Today, NHIA staff no longer have to travel 10 hours from the Upper East Region down south to Accra just to process their claims. And that's a lot of paper, fuel, and time saved – among other things.

## National eGov Architecture and Its Impact on IT4UHC Systems

**Chae Young Moon**

The growth of eGov in Korea started about 40 years ago, putting together the nationwide broadband networks and promotion of informatization. In the year 2001, the government launch formally the eleven (11) tasks of e-Government Services. Since then, they move towards expansion of the major tasks and integration of eGovernment services. However, a strong political will and a well-founded information



technology infrastructure (IT) were the identified critical success factors.

As an overarching framework, Korea adopted the Government-wide Enterprise Architecture to achieve integration and interoperability among their public IT projects. According to Mr. Chae Young Moon, the National e-Gov enable the integration of four social insurances (i.e. Pension, Workman's Compensation, Health Insurance and Unemployment Insurance), expansion of EDI claims systems, improvement of quality assessment system and implementation of drug utilization review system.

## eHealth and National Health Account for the Efficiency of UHC

Jeong Hyoung-Sun

Mr. Jeong Hyoung-Sun discussed about Korea's Electronic Data Interchange (EDI) as a mechanism to efficiently manage National Health Insurance Reimbursement. The mechanism is founded on System of Health Accounts (SHA) which is a framework for a family of interrelated tables for standard reporting of expenditure on health and its financing. A tri-axial system was put forth and implemented: (1) health care by **function** (ICHA-HC); (2) health care **service provider industries** (ICHA-HP); and (3) financing schemes (ICHA-HF) Main sources of private health expenditure Information from consumers includes KoHPS (Health Panel Data), Family Income and Expenditure Survey and the National Health and Nutrition Survey while Information from providers were based from Economic census (2010), Service Industry Census (2005) and Survey on NHI OOP expenditure.