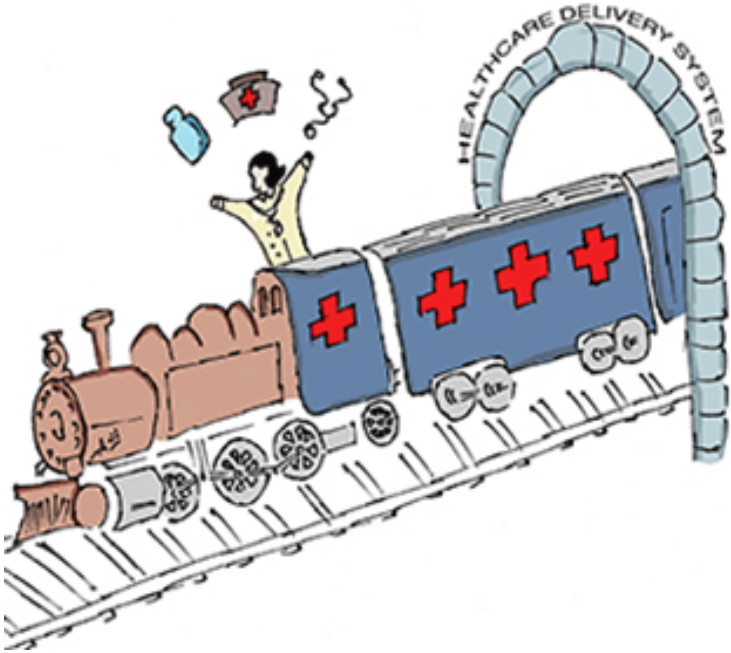


## Healthcare delivery revolution in APAC

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Asian countries face the challenge of wide demographics, resource accessibility and disruptive connection between healthcare providers and consumers. Setting examples to overcome the challenge through integration of smart healthcare in the ecosystem, Asian healthcare providers are able to provide seamless and faster solutions to patients. HIMSS Asia Pacific 2013, concluded in Singapore, recognized seven health IT projects developed and implemented by healthcare units in Asia that have brought a significant change in the way healthcare is delivered. The projects are:

### **Apollo Hospitals Enterprise Ltd**

**Country:** India

**Project:** Apollo Prism, a Patient Engagement Platform (PEP)

**Description:** Lack of a patient-oriented Health IT system has led to lack of transparency, higher cost of care and non-scalable care delivery models. To address the issue, Apollo's Patient Engagement Platform (PEP), Apollo Prism, contains health information of the patients to enable seamless patient interactions via a single platform. Apollo Prism, accessible via web and mobile, utilises the Hospital Information Systems to feed and compile data during the patient care process. Apollo PRISM is used by two-and-a-half million patients and connects to 30 hospitals and 80 clinics in India.

With patient centricity at the core, Apollo Hospitals has continuously focused on initiatives that provide superior patient care and comfort. The Apollo Prism initiative helps in providing patients with secure and convenient access to their medical information, irrespective of their location across the world. Apollo Prism demonstrated that a robust medical record will encourage individuals to stay more engaged with their health and in turn, enhance clinical outcomes and reduce unnecessary costs.

## **Changi General Hospital & Integrated Health Information Systems**

**Country:** Singapore

**Project:** Closed Loop Medication Management System (with QR coded sachets)

**Description:** Medication used in inpatient settings involves a complex series of inter-related processes involving order, review, supply and administration of medication. The Closed Loop Medication Management (CLMM) system with QR barcode medication verification at point-of-care eliminates the risk of incorrect medication serving as it blocks medication administration that does not match the doctor's prescription. The system also improves the efficiency of healthcare staff, giving them more time for quality patient care. Data from the system also provides clinical analytics to improve patient outcomes.

The CLMM system with QR code enables Changi General Hospital to deliver safer care through the administration of correct drugs and dosage to the right patient at the appropriate time. It has also substantially increased productivity and staff satisfaction by improving inventory management and enabling nurses with more time for direct patient care. Changi General Hospital is the first in Southeast Asia to use QR barcode technology for CLMM.

## **Prince of Wales Hospital, Chinese University of Hong Kong**

**Country:** Hong Kong

**Project:** Security-Enhanced Mobile Imaging Distribution System (SEMIDS)

**Description:** Stroke is the leading cause of disability and death. Although thrombolysis (treatment to dissolve blood clots that may lead to stroke) is a well-established effective treatment, unfortunately due to the shortage of neurologists, thrombolysis is not available during non-working hours in most hospitals in Hong Kong which has led to medico-legal consequences. To improve the service gap, a software: Security-Enhanced Mobile Imaging Distribution System (SEMIDS) was developed. SEMIDS is a unique telestroke model (telemedicine for stroke care) to facilitate thrombolysis during non-working hours through remote real-time patient assessment (with videoconference), medical record review and CT brain image interpretation (with teleradiology) by off-site neurologists. Thrombolysis rate was increased 3.5 fold, which translates to 10 day shorter hospital stay per treated patient.

Telestroke with SEMIDS has a major impact in emergency stroke care in Hong Kong. While advances in IT always exceed that of manpower growth, health IT improves efficiency of health care services by removing all geographical barriers and access blocks.

## **Seoul National University Bundang Hospital**

**Country:** Korea

**Project:** n-Device Strategy in the hospital environment to improve care coordination and empower patient engagement

**Description:** To address the issues involved in effectively operating and maintaining the hospital information system (HIS), accessibility to hospital's medical information in a timely manner, and empowering patients to take charge of their health, the multi device strategy, n-Device, was established. n- Device consists of five components: 1) A cloud-based virtual desktop infrastructure that allows HIS applications to be accessed from all computing devices 2) a mobile electronic medical record or picture archiving and communication system accessible via smart phones and tablets, 3) a dashboard system using 55-inch touch screen monitors customized towards intensive care unit, and emergency room, 4) a patient education system to provide flash animation-based educational materials and 5) a personal health record system.

Used in hospitals, the n-Device Strategy will play a key role in improving patient safety, quality of care and increase efficiency. Additionally, it provides seamless access to patient information even outside the hospital, thereby enhancing patient satisfaction.

## **Seoul National University Bundang Hospital**

**Country:** Korea

**Project:** Next generation Hospital Information System (HIS) focusing on innovative user experience

**Description:** Seoul National University Bundang Hospital (SNUBH) has developed the next generation Hospital Information System (HIS) using latest ICT such as rich client user interface platform, innovative user experience design and unified communication. The next generation HIS can process various and complex medical and patient information so that healthcare staff can effectively utilize the information and quickly make their decisions, improving patient safety and quality of care.

Hospital staff also led and contributed to the development of the next generation HIS, sharing on the ground knowledge and experience. The success of the next generation HIS was made possible with the collaboration of various teams working on different aspects of the platform.

The seven health IT projects were presented with HIMSS-Elsevier Digital Healthcare Award, during HIMSS Asia Pacific, 2013.