

The background of the slide is a photograph of the Ministry of Health Brunei building. The building is a large, classical-style structure with a blue facade and white columns. In the foreground, there is a black metal fence with white pillars and a central gate. The sky is blue with some white clouds. The text is overlaid on a dark blue rectangular area.

MINISTRY OF HEALTH BRUNEI CREATES A “ONE-PATIENT/ ONE-RECORD” E-HEALTH SYSTEM

CASE STUDY: MINISTRY OF HEALTH BRUNEI



In Brunei, a small country on the northern coast of Borneo, a cutting-edge healthcare information system is delivering big and universal health benefits. With support from Dedalus, the Ministry of Health Brunei (MOHB) has achieved a first-of-its-kind milestone in healthcare: the implementation of an agile health-information management system containing the health records of every citizen in an entire country.

Thanks to Brunei's plentiful reserves of oil and natural gas, its citizens enjoy a high standard of living, and that includes healthcare and medical services provided by the federal government. Building on that foundation, MOHB — which oversees Brunei's four government hospitals and 60 health centers and clinics — sought to implement a comprehensive healthcare information system. It wanted a system that would span all of the country's health facilities and, operating under a "one patient/one record" philosophy, make every health record easily accessible to physicians and other healthcare professionals anywhere, anytime. and, operating under a "one patient/one record" philosophy, make every health record easily accessible to physicians and other healthcare professionals anywhere, anytime.

EASY ACCESS TO PATIENT RECORDS

MOHB officials knew that building such an advanced healthcare information system would require help from a partner that offered a deep knowledge of the healthcare industry, an established software solution and a wide range of skills. “We realized that our goal would be no small feat,” says Dr. Ahmad Yazid, an intensive-care physician and medical superintendent of the Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital — Brunei’s largest, with more than 600 beds. “So we needed a partner with technical knowledge and dedication.”

That partner was Dedalus, which MOHB brought on board to provide IT support and technical expertise. Dedalus engineers designed the system, dubbed Bru-HIMS (short for Brunei Health Information and Management System), to run on Dedalus’ Enterprise Management software and to integrate with nearly a dozen preexisting MOHB systems, including appointments, outpatient management and clinical care. After less than 2 years of work, Bru-HIMS went live.

To improve its chances for a successful implementation, MOHB introduced Bru-HIMS on a district-by-district basis. This carefully planned system rollout included user training, readiness roadshows and symposiums. Dedalus provided training for every medical professional, and all Bruneians were encouraged to register for the system, leading to high levels of adoption. Bru-HIMS was even given its own public Web portal: moh.gov.bn/SitePages/Bru-HIMS.aspx.

HELPING BOTH PATIENTS AND PHYSICIANS

Today, Bru-HIMS’s real-time data integration and replication capabilities make it possible for all Bruneians — as well as their healthcare providers — to easily gain access to a single, consistent record of their healthcare information. To register for the system, Bruneians can use a mobile app that runs on smartphones; to date, 90 percent of the population has registered. Patients appreciate knowing that wherever they go, their healthcare records can be retrieved quickly and easily. When they visit a clinic or hospital, they need bring only an ID card to access their single medical record, which includes lists of prescribed medications, the results of past X-rays and other tests, and reports from previous visits. Patient safety is protected, too, as an audit trail with a unique patient number is available for any investigation report. For physicians, Bru-HIMS helps to eliminate misplaced or missing notes, solve the problem of illegible handwriting, minimize duplicate tests, improve the management of medication stock, and — by allowing access to a single patient record anywhere, anytime — generally improve both diagnosis and care. “The system,” Dr. Yazid says, “enables the clinics and hospitals to operate more efficiently and effectively to meet our patients’ expectations.” In addition, Bru-HIMS offers enhanced mobility solutions that empower clinicians to support their patients from outside hospitals or while traveling. A planned feature will let Brunei’s “flying doctors” — physicians who serve the roughly 10 percent of the population living in areas so remote that they can be accessed only by helicopter — provide telemedicine over the Internet.

CHALLENGE

- Optimize a national, state-provided healthcare ecosystem
- Improve service delivery efficiency and overall patient experience
- Enhance business intelligence and mobility capabilities

SOLUTION

- Roll out the Brunei Health Information and Management System (Bru-HIMS), built on Dedalus’ Enterprise Management system
- Link and integrate systems for Brunei’s four hospitals and 60 health centers and clinics
- Leverage Dedalus’ knowledge, experience and skill set to support implementation

RESULTS

- “One patient/one record” access for all registered citizens and their healthcare providers
- Ability for clinicians to support patients anytime, anywhere
- Better use of medical data; improved patient care and safety



INDUSTRY EXPERIENCE, GLOBAL REACH

As a global leader in advanced e-health solutions, Dedalus is proving a good match for MOHB. “We’ve worked well together from the beginning,” Dr. Yazid says. “CSC (now Dedalus) has listened to our needs as a client, delivered the software, trained the users and improved the program based on user feedback.”

Dedalus’ Enterprise Management system underpins the Bru-HIMS solution, providing full integration of enterprise health records and hospital information systems. The solution drives the complete automation of all hospital workflows across patient management, clinical documentation, referrals, and areas such as pharmacy, laboratory and radiology.

Moreover, Bru-HIMS transactions are fully synchronized across multiple databases and system nodes using real-time workflows across multiple care settings. Integration with a drug database provides

clinical decision support while also ensuring patient safety. Patients benefit from easier access to resources, while care delivery is safer because error rates have been reduced through electronic prescribing.

Bru-HIMS also delivers advanced business intelligence reporting for management reviews, enabling MOHB to measure and improve program effectiveness and costs. Further functionality added recently includes better scheduling and improved device integration. Planned new features include an information system for dentistry and the ability to analyze collected data to plot future expansions and enhancements. “This is still a work in progress,” Dr. Yazid says. “By working together with CSC (now Dedalus), we are progressing well toward our goal.”





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About Dedalus

Dedalus is the leading healthcare and diagnostic software provider in Europe and one of the largest in the world. With its innovative framework of comprehensive and process-oriented solutions, Dedalus enables a revolutionary digital transformation of country-wide Healthcare Systems fully supporting the patient digital journey. Dedalus serves more than 6,100 private and public hospitals across 40 countries, through more than 5,500 highly specialized resources, of which 2000 are dedicated to R&D activities. We aim to help caregivers and healthcare professionals to deliver better care to the communities they serve and for this reason we are very proud of doing a special job, working with healthcare organisations to improve healthcare outcomes for patients.

Life flows through our software.

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