

TPC: The Ultimate Link between Doctors, Allied Health Personnel and Patients

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Introduction

For a long time, Sarawak has been wanting to electronically link doctors in district hospitals with specialists in major hospitals, and with allied health personnel in rural clinics. We started using the internet for consultation and tele-referral between district hospitals and the major hospitals with specialists in 1997. Another system was donated by the Japan International Cooperation Agency (JICA) in 2000. The purpose of this paper is to inform participants about our current system, namely Teleprimary Care. What is TPC? Teleprimary Care (TPC) is an electronic clinic management system that links clinics to hospitals. The software was jointly developed by the Family Health Development Division, Ministry of Health, Sarawak State Health Department and Johore State Health Department, together with the vendor appointed by the Ministry of Health to initiate TPC. The features in TPC include: centralized electronic medical records, tele-referral, tele-consultation, and auto-notification of infectious disease and auto-generation of reports. TPC also helps to improve the quality of care in clinics, especially those situated in remote localities, by bringing specialist care closer to patients and reducing professional isolation of health staff working there.

The main objectives of TPC are to generate and allow sharing of electronic medical records, facilitate collection and analysis of health data, allow consultation and joint management between facilities, such as between clinics and hospitals, provide for rapid notification of notifiable diseases through in-built auto-alerts, improve access to specialist care for patients in remote areas and reduce patients' costs for health care.

Results

Implementation:

It was implemented in 2004 as a pilot project in Sarawak and Johor, at an initial cost of RM24.5 million. In Sarawak, TPC connects 21 sites (17 clinics and 4 Divisional Health Offices) in the Rejang Basin to Sibu Hospital, using either Very Small Aperture Terminal (Vsat) or Internet Protocol Virtual Private Network (IPVPN) technology, depending on the local communication infrastructure. It was extended to 9 more locations in Kuching and Samarahan Divisions in 2007.

At present, TPC only involves disciplines that are available in primary health care clinics such as internal medicine, paediatrics, obstetrics and gynaecology, dermatology, family medicine, epidemiology and the support services.

As of 31 December 2010, there are more than 2,000 registered TPC users in Sarawak. Together, they have registered more than 600,000 patients and entered 3.3 million visit records into the TPC system.