

ABSTRACT

The health information system (HIS) plays an important role in the health system, producing health reports and related activities to support decision making and health planning. In low- and middle-income countries (LMICs), however, the HIS operation is often challenging due to a lack of sufficient resources. In Cambodia, a quality improvement program has recently been implemented, which focuses on infrastructure, capacity building, management, and health services including the HIS. This dissertation presents findings from a study which aimed to understand the technical and organizational challenges to the operation of the HIS in Cambodia and to draw lessons that can be used to improve the system in Cambodia and other LMICs.

Method: The research design was based on a qualitative research methodology including structured observations, interviews, and material collected in a meeting with managers. Twenty participants involved in the health system operation and management were purposively selected from 6 health centers, 3 operational districts, and a provincial health department. The data collection and thematic analysis relied on a conceptual framework based on WHO guidelines on HIS strengthening, and focused on the key dimensions of accuracy and validity, reliability, completeness, legibility, timeliness, and accessibility. In addition, the SWOT model (strengths, weaknesses, opportunities, and threats) was also used to inform the assessment and provide policy recommendations.

Result: The study found that local operators followed the basic steps in the protocol for the collection of health data from the health centers and villages. The data consistency in the reports was reported in average up to 90%. The reports completed main requirement in the system and were easily to read, managed, and stored both hard and electronic copies. The operators submitted reports on-time to district and provincial level. Accessing to electronic files was secure, requiring username and password, while health partners and local government could get a hard copy of the

reports if authorized by their managers. The overall challenges were insufficient equipment, no standard training, inadequate supervision, inadequate verification procedures, and work overload. The strengths were good team cooperation, timeliness of reporting, and quick feedback to health center. Weakness was the lack of expertise in operation, analysis, and that the assessment tools did not cover local HIS operation. There were opportunities for further training which could be provided to develop capacity and offer performance-based incentive; while concerns remain over the sustainability of quality improvement activities after the project ends. The current solution was addressed by a “stop-by-chance” adaptation, “former-staff-support”.

Conclusion: Investing on technology development of system, capacity building, and regular supervision requires much effort and collaboration with health partners and local government. The study highlights the stop-by-chance: the teams discuss at flexible time and places; and the former-staff-support: retired staff kindly teaches new operators. These key solutions can be a sustainable improvement mechanism for local system operation.