Policy Brief: Investing in health information systems

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About this series

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Introduction

Globally, there is increasing understanding of the importance of efficient and effective health information systems that underpin health services. There are increasing requirements for governments to be accountable, and thus a strong need for measuring health outputs and outcomes.

The interest of decision-makers and donors in investing financially in health information systems has intensified, increasing the need for performance requirements such as quality, coverage and efficiency. Health information systems now have many expectations placed upon them: they are expected to serve multiple purposes and meet multiple users' needs, regardless of perspective.

Globally, the main issue faced by health information system administrators is data integration and reconciliation. This issue has been complicated by the recent proliferation of new disease-focused and information-focused health partnerships and alliances, as well as global reporting for the Millennium Development Goals.

In this increasingly complex world of information demands, Pacific and Asian countries need to be empowered to take ownership of their own health information and to take the lead in initiating strategies to address such issues. Donors need to align their reporting requirements with each country's health information collections and plans.

Human resources for health information systems are vital, and there is an obvious need to build upon existing capacities for data collection and management.

Skills development is particularly needed for data evaluation, analysis, interpretation and reconciliation from different sources. With the shift from communicable diseases to lifestyle-induced diseases, and from acute to chronic conditions (and sometimes the double burden of both), there is a compelling need to address the long-term implications for the health system through collection and analysis of health-related data.

Recommendations

There is an urgent need to support the following:

1. **Delivery of appropriate training on data analysis for data producers.**

The analytical skills needed are diverse. Emphasis should be on increasing skills to assess the quality and completeness of basic health statistics such as mortality and cause of death.

2. **A regional dialogue on the incentives for data collection at the health system level.**

A regional scoping project should be initiated to define the core challenges for health information system positions (including education levels, remuneration, governance, supervisory responsibilities, duties, and opportunities for promotion). A regional proposal for core health information system position descriptions should be developed, and donor scholarships and ongoing training for the health information system workforce should be coordinated, where possible.

3. **Establish either core specifications for a chief information officer or for the establishment of a health information committee that operates at an executive level.**

There is a need for a description of region-wide health information system–related core job responsibilities and specifications required to support a health system.

4. **Design a business case for establishing a regional mortality initiative to improve mortality and cause-of-death data, and analytical skills.**

Establishing a regional mortality ICD-10 initiative is a potential solution to the shortage of suitably trained mortality coders, and to the challenge of evaluating the quality of mortality estimates from the region.

Analysis

In many Asian and Pacific island countries, health planning and policy decisions are made in the absence of reliable information and are often based on politics, anecdotal evidence or donor pressure. It is a common scenario that health information system activities and personnel do not receive attention or financial support within a health system. Advocacy is needed to motivate decision-makers to make investments and changes to improve data collection and quality, and therefore increase confidence in its validity as evidence.

There is a need to increase the capacity for data analysis. Personnel who are responsible for data collection and analysis are often undervalued or under-skilled, and therefore incentives are needed to ensure quality of skills.

Training on data analysis needs to be tailored to suit the level of knowledge and background of the target group. However, there are limited courses available through formal training institutions in the Asia / Pacific region.

The value of health information is derived from its usefulness to decision-makers. However, communication of health information is sometimes hampered because of cultural beliefs. It is therefore important to use a range of communication styles—including visual (in text and graphics) and auditory presentation systems— and openly acknowledge cultural barriers.

There is a large and urgent need to recruit a skilled health information system workforce, in both the public and private sectors, as more experienced personnel retire or move to alternative positions. There is also a need to ensure that health information system careers are attractive at all levels.

Professional development opportunities will help to ensure the retention of a highly skilled workforce and ensure appropriate incentives are in place for staff to remain in their jobs. Staff are often attracted by better positions in larger countries. Training should be undertaken, where possible, in-country, to minimise the need for essential staff to leave their posts, and to reduce the burden and cost of training overseas. The health information system workforce needs to be valued, have opportunities for promotion, and have recognition of their skills to remain in these positions, and curb high turnover.

There is a need for a description of region-wide health information system–related core job responsibilities and specifications required to support a health system (for instance, in database management or health statistics).

Instead of having a chief information officer, as in some developed-country health information systems, a better option for this function in Asian and Pacific island countries and territories would be to have a health information committee to coordinate and manage the functions and outputs of health information and technology.

There is the potential for a regional or a combined approach to purchase software licensing, hardware and medical records-related stationery. Alone, each country faces large costs, which often inhibit the acquisition of quality software or the number of licenses purchased. The idea of a regional fund for updating and acquisition of health technology capital was raised and it was recommended that a specific budget line for health information systems be included in country health financial systems.

Establishing a regional mortality ICD-10 (the World Health Organization's International Statistical Classification of Diseases and Related Health Problems, 10th revision) initiative has been suggested. This could provide a potential solution to the shortage of suitably trained mortality coders, and to the challenge of evaluating the quality of mortality estimates from the region. Although there are a number of key issues to be addressed, having a centralised Asian and Pacific mortality coding centre would increase the quality of cause-of-death data.

Conclusion

Health information systems need to be recognised as an essential component of health service delivery in the Pacific region, and valued for their ability to provide evidence for decision-making.

Many of the health information system issues and challenges in the Pacific region are similar to those identified elsewhere.

However, it is in the solutions that the Pacific Islands are unique, as there is strong potential for regional solutions to collectively resolve some of these issues, especially in the area of data standards, workforce and technological investments.

The way forward in addressing these health information system issues for the Pacific region is to work as a collective group, helping each other to provide advocacy for such an integral part of a health system.

Further Information

Improving the quality and use of health information systems: essential strategic issues

http://www.uq.edu.au/hishub/wp5

Advocating for civil registration: guide to developing a business case for civil registration systems

http://www.uq.edu.au/hishub/wp15

A framework to guide HIS investments: What needs to be synthesised for senior health decision-makers

http://www.uq.edu.au/hishub/docs/WP_22.pdf

For further information, see the Health Information Systems Knowledge Hub website at: www.uq.edu.au/hishub

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