Routine Health Information Systems in South Africa - Opportunities for Improvement

Edward Nicol^{a,b}, Lyn A. Hanmer^a

^a Burden of Disease Research Unit, South African Medical Research Council, South Africa ^b Division of Community Health, Stellenbosch University, South Africa

Abstract

A recurring theme in published studies is the need for the appropriate human and other resources to support routine health information system (RHIS) implementation. While training in the use of specific RHIS and the availability of the required resources for implementation are essential for all users, other factors such as managers' understanding of the role of RHIS in supporting health services; the ability to interpret RHIS data; and a focus on data quality are further requirements for effective RHIS implementation.

Keywords:

Data quality, Routine health information system (RHIS), Health information system (HIS), Human resources, Competence, Health system strengthening

Introduction

Two reviews of progress made towards strengthening South African health information systems (HIS) in the context of current health sector policy initiatives identified multiple challenges which have persisted over the years due to factors including managers' inability to translate key health regulations and policies into practice; inadequate human resources; insufficient capacity of health information personnel; inadequate training; lack of resources such as registers, computers, and printers; limited HIS development planning; and lack of established HIS career paths and accredited training programmes[1][2].

Methods

Four studies on the evaluation of South African HIS by staff of the South African Medical Research Council published between 2010 and 2013 [3-6] were reviewed and the results synthesised to identify opportunities for strengthening existing RHIS performance and for improving future RHIS implementations. The foci of the respective studies were the effective use of computerised hospital information systems (CHIS) [4], RHIS resources [3], data quality challenges [5], and factors affecting data quality, such as RHIS competence and knowledge of RHIS rationale [6].

Results

The following key recommendations are made, based on the results of the review:

 Continue and strengthen efforts to ensure the effective use of existing RHIS, including the District health information system (DHIS) and other RHIS in use at patient, facility, district and provincial level.

- Strengthen management commitment and support, including appropriate resource allocation for RHIS [3][4].
- Focus on data quality, including allocation of required personnel and other resources to enable active monitoring of RHIS use and RHIS reports [4][5][6].
- Allocate, train and support management and end users in the use of RHIS. Multiple approaches and content are required. Include interpretation and analysis of data from the RHIS in management training [4][6].

Conclusion

This review has documented challenges of RHIS implementation in South Africa, and has identified opportunities for improving effectiveness of existing and future implementations.

Acknowledgments

The study was supported by the South African Medical Research Council.

References

- English R, Masilela T, Barron P, Schönfeldt, A. Health information systems in South Africa. In: Padarath A, English R, editors. South African Health Review. Durban: Health Systems Trust; 2011. p. 81-90.
- [2] Loveday M, Smith J, Monticelli F. A comprehensive baseline audit of the South African national health information system. Durban: Health Systems Trust; 2006.
- [3] John Snow Inc, South African National Department of Health. District Health Information System: Rapid Information Needs Assessment. Pretoria: John Snow Inc.; 2012. Technical Report.
- [4] Hanmer, LA, Isaacs S, Roode JD (2010). Factors associated with hospital information system success: Results of a survey in South Africa. In: Safran C, Reti S, Marin HF, editors. Studies in Health Technology and Informatics, Vol. 160: MEDINFO 2010. p347 - 351. September 2010.
- [5] Nicol E, Bradshaw D. Maternal, newborn and child survival: data challenges. In: Fonn S, Padarath A, editors. South African Health Review. Durban: Health Systems Trust; 2010. p. 73-8.
- [6] Nicol E, Bradshaw D, Phillips T, Dudley L. Human Factors Affecting the Quality of Routinely Collected Data in South Africa. In: Lehmann CU, Ammenwerth E, Nøhr C, editors. Studies in Health Technology and Informatics, Vol. 192: MEDINFO 2013. p788 - 792. August 2013.

Address for correspondence

Edward Nicol, Email: Edward.Nicol@mrc.ac.za