

# **Investigating the Health Information System Implementation Process in Senegal: Challenges & Opportunities**

Master's thesis submitted to the Charité Universitätsmedizin Berlin,  
Freie Universität and Humboldt Universität Berlin  
in partial fulfillment of the requirements for the award of a  
Master of Science degree in International Health

Submitted by Maty Wandeler Dia, 29 november 2011

## **ABSTRACT**

### **Background and problem statement**

A functioning health information system (HIS) is a prerequisite for a sustainable health system offering relevant and accessible information to the population. It is fundamental that the information it provides is reliable, timely and descriptive of the population health status and the functioning of the health services. This information helps public health professionals and policy makers at local, regional and national levels make strategic decisions about health program planning and health resource allocation in order to better apply the principles of Primary Health Care. In the last few years, many developing countries, through their health sector reforms, have put great efforts into restructuring and strengthening their HIS. This is partly explained by the fact that governments themselves are finally seeing the essential role of a good HIS when it comes to disease prevention, management and monitoring.

Another reason for the HIS reforms is that donors and global partnerships are increasingly requiring governments to provide them with reliable health information to monitor progresses made, as a prerequisite for them to keep receiving financial support.

### **Objectives**

This thesis describes the Senegalese National Health Information System and lays out its implementation process. The main objectives of the research are: to investigate and analyse the specific organizational framework of the health information system and sub-systems in Senegal; identify the challenges they face and then to propose recommendations to overcome these challenges and reinforce the National Health Information System. Part of the process will illustrate the methods of data usage, processing, analysis and reporting procedures used by the different sub-systems in place, such as the sub-systems of the health care services, as well as the different vertical programs (HIV/AIDS, malaria, reproductive health, and the Expanded Program of Immunisation

### **Methods**

The research methods used in this paper are qualitative. They include examination of secondary literature sources such as official government reports, technical papers, international organisations reports, and recording tools such as health facilities registers. Primary research is done through questionnaires, discussions through email, telephone interviews with government officials, monitoring and evaluation officers, vertical program supervisors and public health workers.

## **Findings**

Attempting to integrate all the collected health data into the national HIS becomes quite a challenge. The research reveals a complex system with a number of problems at different levels of the administration, such as poor health services infrastructure, unqualified health staff, lack of knowledge of the purpose of data collection, poor handling of the information, and the fragmentation and duplication of the information available in the vertical health programs.

## **Discussions and recommendations**

The paper suggests different solutions that may be used to overcome the challenges faced by the Health Information System in Senegal and to enhance its effectiveness. Solutions range from developing stronger public partnership participation, investing in human resources and technical capacity, slowly integrating the sub systems and other sectors into the central HIS.

**Keywords:** Information systems, health information systems, Senegal