

# Chapter 20

## Decision Support Systems for Health: Global South Perspective

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### ABSTRACT

*This chapter maps the health decision support systems in the literature reviewing the current practices in the global south. The link between the evidence generation and evidence utilization in the evidence-based health-related decision making is affected by the capacities on both sides. One of the main challenges in this regard is the lack of a comprehensive view of the system that governs both sides and the policy design process. The author explores this limitation and conducts a scoping review to examine the position of different aspects of evidence-based decision making in the relevant literature. Seven categories of research work were charted: actors, content, context, process, inputs, outputs, and measurements. The chapter concludes that despite the increased efforts, there is room for further development of evidence-based decision making practices in the national health authorities, especially in the global south. More attention is needed to the actual practice, role of policy analysts, and the role of international organizations.*

### INTRODUCTION

Enhancing the practice of using scientific evidence to inform health policymaking is especially important in the global south and in the low- and middle-income countries (LMICs), which mandates increased efforts.

The purpose of this study is to map the position of various aspects of evidence utilization in health decision-making systems in the relevant literature while reviewing the current practices in the global south. To achieve the purpose, this study attempts to answer the following research questions: What are the different aspects of Evidence-Based decision-making (EBDM)? What are the relations between these aspects? What are the relevant practices in the global south?

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The results of the study contribute to the development of a robust evidence-based decision-making process while discussing the potentials and challenges for more effective health policymaking performance in the global south.

Global health agencies pay attention to increasing the use of information in decision-making. Progress in this regard has differed from one country to another. Although there are case studies of a few systematic interventions in the Middle East and North Africa (MENA) region, progress toward evidence-based decision-making has undeniably been slow (ElSayed, 2019).

An interesting article provides an overview of the fundamental principles, significance, and need for evidence-based decision-making (EBDM), in addition to the challenges in MENA that may hinder the progress of EBDM (ElSayed, 2019). According to the article, because of insufficient research data, MENA's health policies are mostly disjointed from scientific evidence. This is illustrated in the comparatively limited production of health research: between 2004 and 2013, five countries (Iran, Egypt, Pakistan, Kingdom of Saudi Arabia, and Tunisia<sup>1</sup>) accounted for 80% of MENA's total health research production in the form of peer-reviewed publications. Moreover, health research areas are not intended to address public health priorities nor produce substantial evidence and information for decision-making (ElSayed, 2019; Tadmouri et al., 2017).

Numerous obstacles have been hampering the use of evidence to inform policymaking in the LMICs (Dobrow et al., 2004). First, policymakers and experts are often less informed about the practice and importance of evidence-based decision-making, and frequently claim that their standard policymaking practices are supported by substantial evidence. While the argument is not in itself false, it lacks the key principle of evidence-based policymaking practices: ensuring that the best available information-gathered, synthesized, and consistently validated using systematic approaches which guides decisions (WHO, 2007). Second, there are weak communication channels between information and knowledge-generating institutions and policymakers (WHO, 2007). The solid scientific evidence available may not be designed or represented in user-friendly ways for the use of policymakers. Finally, adequate and reliable evidence may not be accessible or, when available, may not be regarded as relevant to the context (Alliance for Health Policy and Systems Research, 2007; Tadmouri et al., 2017).

## **METHODOLOGY**

The purpose of this work is to map the different aspects of EBDM reported in the literature. The study is adopting two main approaches: the System Theory and the Health Policy Analysis (Sadowski, 1999; Walt & Gilson, 1994). See Figure 1.

The study illustrates a scoping review of the literature with the aim of mapping the different aspects of EBDM reported in the literature. The search strategy uses terms listed as Medical Subject Headings (MeSH) or other database-specific categories. The database included were Medline (PubMed), Scopus, WHOLIS (the WHO Library Database), and IMEMR (Index Medicus for the Eastern Mediterranean Region) databases, for terms related to “Institutional capacity, Evidence-based decision-making, Health policymaking, Evidence to policy, Knowledge translation, Decision support systems”.

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