

## Chapter 4.7

# The Use of Information and Communication Technologies for Health Service Delivery in Namibia: Perceptions, Technology Choices, and Policy Implications for Sub-Saharan Africa

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### ABSTRACT

Information and communication technologies (ICT) have transformed health service delivery (HSD) in developing countries although the benefits are not yet fully understood. This chapter examines the use of ICT for HSD in the Namibian context. To obtain insights into the extent and degree of the current ICT uses, the chapter begins by mapping a HSD landscape for Namibia. The reported ICT use patterns are based on a primary survey of 134 patients and key informant interviews held with 27 health service providers (HSPs) in Khomas and Oshana regions of Namibia. The results from the

survey indicate that Namibian patients use diverse range of ICT to access health services including the traditional television and radio, and the more modern mobile phones and computers to a limited extent. HSPs reported the growing use of ICT in various functional areas such as admissions, clinical support, family planning, maternity, and emergency services. The chapter identifies key challenges and policy implications to enhance the uptake of ICT-based health services in Namibia. The relatively high penetration rates of traditional ICT such as televisions and radios coupled with a growing use of mobile phones presents new alternative opportunities for expanding HSD to Namibian patients in remote settings. The chapter will benefit HSP and patients

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as they decide on affordable technology choices; and policy makers as they design interventions to stimulate the use of ICT in HSD in Namibia. The results provide key insights for other Sub-Saharan African countries contemplating ICT integration in health services.

## INTRODUCTION

Information and communication technologies (ICT) have transformed the way health services are delivered in today's global society Sargeant (2005:305). For any society, however, it is important to understand how ICT are being deployed to support the delivery of health services to patients. In the case of Namibia, health service providers (HSP) in both the private and public health sectors must have the capability to use ICT as this will subsequently influence how they deliver services to their patients in the future. On the other hand, patients too, need to use relevant ICT to support and improve their access to health services. This chapter, therefore, examines the landscape for health service delivery (HSD) in Namibia. The Namibia Health Service Delivery Landscape (NHSDL) provides key insights and a better understanding of the current utilization and the future potential for ICT applications in health service delivery (HSD). The proposed NHSDL provides a comparative assessment of the emerging ICT use patterns in both rural and urban areas in Namibia. Patient's views and perceptions about ICT applications in HSD are described. Furthermore, the chapter highlights some considerations for improving access to ICT by both rural and urban-based patients in Namibia.

Namibia's health sector is distinctive and different from other sub-Saharan countries. What makes Namibia's HSD unique is the critical role that missionaries have consistently played in health care provision. Health services in Namibia are supplied by the government, missions and private providers (Namibia, Ministry of Health and Social Services,

2004b:5). The HSD system comprises two main components: a *public* and *private* health services sector (El Obeid Mendlsohn, Lajars, Forster and Brule, 2001:1). The government of Republic of Namibia (GRN) through the Ministry of Health and Social Services (MOHSS) supplies public health services, while the private health services are offered by private practitioners, hospitals and clinics. Mission health services are subsidized by the MOHSS and include hospitals, health centers and clinics. Mission health facilities are considered key part of the public health services.

In view of the fact that the healthcare sector is one of the fastest growing industries in the service sector, stakeholders in healthcare will be forced to make some adjustments to reposition themselves for the future. Those health service providers (HSP) that fail to introduce the necessary changes arising from increased use of ICT will either become obsolete or less competitive in the long-run. As a developing country, Namibia is confronted with the global competitive issues and this serves as a further motivation for this study. A competitive health service sector will play a major role in the GRN effort to meet the challenges of the Millennium Development Goals (MDGs).

Namibia is among the leading countries in Sub-Saharan Africa that have made significant strides in using ICT to transform government service delivery. Hesselmark & Miller (2002:40) indicates that Namibia's infrastructure has tremendously improved in the twelve years after independence, the number of telephone lines has doubled, the mobile network covers most of the population, the Internet can be accessed throughout the country, and 600 leased lines are in operation. Hesselmark & Miller (2002:40) further adds that ICT competence is widespread and that several large companies in the modern sector operate sophisticated enterprise software.

According to the MOHSS, Namibia has implemented a computerized health information system (HIS) that is currently being used in the public sector (Namibia, MOHSS, 2004a:26).

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