Chapter 26
Mobile Phones and Expanding Human Capabilities in Plural Health Systems

Steven Sam
The University of Queensland, Australia

ABSTRACT

This chapter explores the integration of mobiles into the local health culture in Sierra Leone to advance healthcare delivery to marginalised communities. It draws on Amartya Sen's capability approach to conceptualise the mobile phone as a potential technology to expand healthcare capabilities in an environment of scarce healthcare resources. It builds on ethnographic data collected through mixed-methods from rural and urban communities to analyse the different actors, dynamics and practices of healthcare behaviours in a plural healthcare system. The analysis shows increasing trends towards mobile phone usage to ease healthcare communication and information poverty. Mobile phones enable marginalised publics to collapse distance and reduce time and health infrastructural constraints to seek healthcare within their abilities. It, however, concludes that to fully harness and maintain sustainable mobile phone-enabled healthcare in Sierra Leone requires the need for an appropriate institutional configuration to foster an integrated healthcare information system management and service delivery.

INTRODUCTION

This chapter discusses how the integration of mobile phones into a wider communicative ecology of rural and urban settings expands the capabilities of marginalised publics to negotiate healthcare services in Sierra Leone's plural healthcare system. It discusses the extent to which these processes do or do not facilitate the access to timely and affordable healthcare services. Similar to other countries in sub-Saharan Africa, Sierra Leone's public health system is plagued with several challenges—ranging from outdated policies, poor medical equipment, limited and ill-equipped medical personnel, to poor drug management and information delivery mechanisms (GoSL, 2009b). As part of continuing efforts to reverse the deplorable public health system, the government of Sierra Leone developed an ambitious

five-year (2010-2015) national health sector strategic plan in 2009. Some of the key priorities of this plan included the accessibility to medicines and health technologies to the public and the standardisation of health information flow among the government's funded Peripheral Health Units (PHUs) and public hospitals across the country (GoSL, 2009b, p. 33).

Until recently, the effect of the Sierra Leone government's healthcare strategy is less evident in the planning and delivery of public healthcare services to citizens. Many public hospitals and community healthcare centres still work under considerably difficult conditions to attend to patients, make appointments and coordinate other health related activities. More importantly, a good number of ordinary Sierra Leoneans are still unable to access quality, affordable and well organised public healthcare services. Consequently, this limitation forced many vulnerable and marginalised publics to explore alternative means for healthcare services. These alternative means are facilitated by a plural healthcare system, which involves a wide array of state and non-state health providers that people navigate between to seek health care (Scott et al., 2014). The system offers sick patients the options to negotiate health care from multiple sources such as home treatments, herbalists, religious healers, drug peddlers and facility-based providers (Scott et al., 2014, p. 293). Given the diversity of healthcare providers in the plural healthcare system, it is likely for patients or caregivers to search, negotiate, coordinate and make decision about where and how to seek healthcare services. In this chapter, the author discusses the place of mobile phones as communication devices to facilitate these processes by the marginalised—that is, people who are socio-economically disadvantaged and have limited access to healthcare information and services in Sierra Leone.

A growing number of developing countries have embraced mobile phone-based intervention to strengthen and transform their weak health systems (Krishna, Boren, & Balas, 2009; Vital Wave Consulting, 2009). Mobile phone-based intervention has contributed to improving efficient and flexible healthcare delivery services, leading to positive health outcomes for their citizens in several documented cases. For example, an SMS-based HIV/AIDs awareness quiz in Uganda is reported to have increased the number of patients coming for free HIV/AIDS testing by 40 per cent (i.e. from 1000 to 1400) in a six-week period (Vital Wave Consulting, 2009). Similarly, SMS reminders sent to health workers' personal mobile phones in remote communities in Kenya helped them to consistently adhere to the guidelines of administering malaria treatment to outpatient children (Zurovac, Talisuna, & Snow, 2012). This chapter examines these claims from the perspective of health care organisation and delivery by state and non-state actors within the plural healthcare system context. Specifically, the chapter focuses on the extent to which mobile phones expand the information and communication capabilities of marginalised publics to facilitate timely and effective healthcare services. It argues that understanding mobile phone use in healthcare from the perspective of the marginalised is crucial to determine its implications for advancing healthcare services in Sierra Leone. It further proposes that such understanding is crucial to shape the way mobile technology should be better integrated into the organisation and delivery of effective healthcare services in an environment of scarce healthcare resources. In all, this chapter aims to show that research into marginalised publics' mobile phone usage in plural healthcare systems further contributes to the understanding of technology-enabled healthcare advancement at the periphery in developing countries.

The rest of the chapter is structured as follows: First, it begins by drawing on relevant literature to discuss the background context of the plural healthcare systems in developing countries, particularly Africa. It discusses the healthcare behavioural patterns and key actors involved in the the organisation and delivery of healthcare services. It highlights the place of mobile phones as cultural objects to mediate healthcare access in a plural medical system. The second section takes this discussion further. It draws on

Related Content

Blockchain in Smart Healthcare Systems: Hope or Despair?
Shilpa Mahajan (2022). *Prospects of Blockchain Technology for Accelerating Scientific Advancement in Healthcare (pp. 1-20).*
www.irma-international.org/chapter/blockchain-in-smart-healthcare-systems/298563

The Administrative Policy Quandary in Canada's Health Service Organizations
Grace I. Paterson, Jacqueline M. MacDonaldand Naomi Nonnekes Mensink (2018). *Health Care Delivery and Clinical Science: Concepts, Methodologies, Tools, and Applications (pp. 1484-1503).*
www.irma-international.org/chapter/the-administrative-policy-quandary-in-canadas-health-service-organizations/192742

IFEDH: Solving Health System Problems Using Modelling and Simulation
Niki Popper, Florian Miksch, Günther Zauner, Harald Piringer, Ingrid Wilbacherand Felix Breitenecker (2013). *International Journal of Privacy and Health Information Management (pp. 28-37).*
www.irma-international.org/article/ifedh/102628

Artificial Intelligence-Empowered Chatbot for Effective COVID-19 Information Delivery to Older Adults
Xin Wang, Tianyi Liang, Juan Li, Souradip Roy, Vikram Pandey, Yang Duand Jun Kong (2021). *International Journal of E-Health and Medical Communications (pp. 1-18).*
www.irma-international.org/article/artificial-intelligence-empowered-chatbot-for-effective-covid-19-information-delivery-to-older-adults/293285

Caught in the Middle: The Divide Between Conventional and Alternative Medicine
Joan W. Young, Prakash Thapaliyaand Santosh Sapkota (2011). *International Journal of User-Driven Healthcare (pp. 27-35).*
www.irma-international.org/article/caught-middle-divide-between-conventional/52621