

## Chapter 63

# A Multidisciplinary Remote Healthcare Delivery System to Increase Health Care Access, Pathology Screening, and Treatment in Developing Countries: The Case of Benin

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### ABSTRACT

*In this paper, the authors describe a case study of the poor access to healthcare in developing world, case of Benin, a West African developing country. The authors identify problems and the existing obstacles for applying standard Telemedicine and eHealth solutions. The authors particularly describe an adapted multidisciplinary remote care delivery system approach for improving and increasing the use of existing health services as well as the access to healthcare by overcoming some cultural, social, financial, and at least linguistic barriers. The multidisciplinary remote care delivery system integrates traditional practitioners, because most people are more confident with the traditional medicine. The authors further present a practical test which has shown that their approach has the potential to improve the quality and effectiveness of health care in rural and other concerned regions and also increase the accessibility to health care system.*

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## **1. INTRODUCTION**

### **1.1. Background**

In the recent years, the burden of diseases is rapidly increasing in the developing countries. Most people living in these regions of the world are facing poor access to health care delivery. The care units in rural regions lack expert medical specialists or most health professionals working there are undertrained. Further, the existing medical infrastructures (facilities) are in a poor state. Care units are particularly scarce in rural areas and/or urban slums. Many urban areas also are facing those issues. Beyond the poor healthcare facilities and lack of care experts at certain care units, which are also underlying the poor access to healthcare, the socio-economic and cultural factors are decisive in how regularly a patient can visit a doctor (attend a health center in person). The few patients, who visit a healthcare facility, are often hospitalized instead of being ambulatory or remotely treated, because of their remote residence, and thus occupy unnecessarily hospital beds and cause unnecessary costs.

### **1.2. Objectives**

The goals of this study are to investigate how ICT systems could help to improve the health care provision services, increase the use of offered health services, and increase as well as improve access to healthcare within the public health systems in African developing countries.

The existing healthcare systems are facing challenges such as improving the health care provision and increasing access to healthcare. Launching Telehealthcare into the public healthcare system could be a solution to meet the challenges (Edoh 2010). Expert medical specialists could remotely assist undertrained caregivers working in urban and/or rural health care centers in providing preventive, curative, promotional or rehabilitative health care. Therefore, this work aims to launch a multidisciplinary remote care delivery system into those public health systems in order to increase access to healthcare provision service in regions severely facing poor access to care provision.

### **1.3. Methods**

In order to increase access to the healthcare in developing countries, it is required to investigate the main reasons why people do not have access to healthcare, and then provide solution approaches to tear the obstacles down. Therefore, the authors conducted quantitative and qualitative evaluation research to assess the state-of-the-art and also conducted survey with populations and health professionals as well as public health care bodies (authorities). The authors had particularly investigated and evaluated the impacts of the traditions, culture, and financial situations on the poor access to healthcare services, particularly on less use of offered health services, since it's reportedly indicated that „ (...) *Although in the meantime 83% of the population has access to the national health care delivery, only 36% of the population uses this.*” (Klein 2005). It is important for us to understand why only 36% of the population uses this possibility.

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