

# Chapter 1

## Digital Medical Care: Securing Mothers' Lives in Rural Kenya Through Mobile Phone Applications

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### ABSTRACT

*According to the World Health Organization (WHO), every minute, at least one woman dies from complications related to pregnancy and childbirth, translating to about 585,000 women losing their lives each year due to child-birth-related complications. Modern information and communication technologies (ICTs) have a pivotal role to play in tackling health-related problems by empowering individuals and equipping decision makers with timely information about critical health issues. This study aimed to evaluate the appropriation of mobile phone applications in enhancing maternal-child health knowledge in rural areas in Kenya with special focus on Busia County. Findings indicated that mobile phone dissemination of maternal health knowledge has a possibility of accelerating access and utilisation of skilled facility services. Therefore, emerging technologies can offer real opportunities to communities by enabling them get reliable and timely information on maternal-child health issues.*

### INTRODUCTION

It is estimated that each year 529,000 maternal deaths occur globally and that the burden of maternal mortality is greatest in the sub-Saharan Africa and south Asia (WHO, 2000). Improving maternal health was one of the eight Millennium Development Goals (MDGs) adopted at the 2000 Millennium Summit. The two

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goals (goals 4 & 5) that were concerned with improving maternal health goals were, however, not met by most developing countries largely due to the strategies that were employed in those countries. United Nations has now embarked on Sustainable Development Goals (SDGs) in which goal 3 envisages to ensure healthy lives and promote well-being for all at all ages.

Many mothers in developing countries have no access to good services and opportunities that improve or preserve their health. Unfortunately, a large proportion of mothers especially in the developing world do not benefit from skilled care services due to socio-economic factors such as lack of adequate maternal-child health knowledge and finance. In Kenya it is estimated that maternal mortality remains high at 488 maternal deaths per 100,000 live births. The rates are higher in rural areas, though in urban slum settlements the mortality rate is even higher. This is due to the fact that the socio-economic determinants that influence utilisation of skilled maternal-child health care in rural areas are almost the same with those in urban informal settlements. A report by the United States Agency for International Development (USAID) and Maternal and Child Health Integrated Program (MCHIP) (as cited in the *Daily Nation* newspaper, 2013, October 6) indicates that in Kenya approximately 21 women die every day from pregnancy-related causes. The report further says that approximately 120 newborns die every day within 24 hours of birth (*ibid*, 2013.) Most of the women who die either do not access or utilise maternal-child health early or do so when it is too late. User fees at public health facilities in Kenya was introduced in the 1980s and it was aimed at reducing the costs incurred to access medical services especially for low income earners in the rural areas. In 2013 the government abolished user charges at public health centres and dispensaries and pledged to provide free maternal deliveries to promote greater health equity in access and utilisation. In addition, in the same year (2013) the first lady, Margaret Kenyatta, launched the Beyond Zero programme whose aim was to bring health care services closer to patients. These commitments were aimed at encouraging more women to deliver at health facilities in order to reduce maternal deaths since the high costs of medical care and distance from the health facility negatively affect women in rural areas. However, these programmes are likely to have some hidden costs and also compromise on the quality of services offered. This study sought to determine the kind of maternal health knowledge that was accessed through mobile phone application, assess the influence of mobile applications in use of skilled facility care among mothers in rural areas and describe how mobile phone technology can be appropriated in dissemination of maternal health knowledge.

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