

# IMPACT OF DEVOLVED HEALTH ON MATERNAL HEALTHCARE: THE CASE OF NYANDARUA COUNTY, KENYA

WAHOME CATHERINE WANJIRU

Master of Arts in Gender and Development Studies, University of Nairobi, Kenya

PROF. OWUOR OLUNGAH

Lecturer, University of Nairobi, Kenya

Available Online at: [http://www.academicresearchinsight.com/paagrj/3\\_2\\_100\\_122.pdf](http://www.academicresearchinsight.com/paagrj/3_2_100_122.pdf)

**CITATION:** Wahome, C. W. & Owuor, O. (2019). Impact of devolved health on maternal healthcare: The case of Nyandarua County, Kenya. *Public Administration and Governance Research Journal*, 3(2), 100-122

## ABSTRACT

The purpose of this study was to understand how devolution had impacted maternal healthcare services within Nyandarua County. Over 30 women who were either attending antenatal or post-natal clinic were interviewed together with serving nurses, clinical officers and other health administrators within the County Referral facility. The study employed pure qualitative study approaches in obtaining feedback from service seekers and providers within the County. From the results, it was evident that the County government of Nyandarua had invested a lot in improvement of health infrastructure across its facilities and also in buying of equipment. The most frequently mentioned reason for this success in maternal health was however, the Linda Mama program implemented jointly by the National and County governments which guaranteed free delivery to pregnant mothers across all government facilities. The study concludes by recommending that the delivery of Linda Mama program must be promoted along with enrolling for National Health Insurance Fund (NHIF) which further guarantees cover to the entire family unlike the later which only covers the mother. Employment of more staff to cope with the rising numbers of mothers seeking maternal health services was also a matter that requires urgent attention.

**Key Words:** *devolved health, maternal healthcare, Nyandarua County, Kenya*

## INTRODUCTION

Maternal health concerns remains one of the greatest health issues of our present times (WHO, 2019). Sustainable Development Goals (SDGs) adopted in 2015 also sets improving maternal health as one of its targets under goal 3. Today, half a million women globally, are estimated to die each year from pregnancy and childbirth with greater than half of these maternal and child deaths occurring in Africa (WHO, 2014).

Maternal health encompasses health of women during pregnancy, childbirth and after birth (postpartum) period. The emphasis on maternal health is reflected in the development agenda and need for healthy communities. According to the GoK (2008), for instance, maternal health care and health sector in general is anticipated to play a critical supportive role in maintaining a healthy workforce. Maternal health, alongside child health, is top priorities in healthcare delivery in Kenya and elsewhere in the world. One of the general health indicators is maternal health as reflected in the Demographic and Health Surveys (DHS) worldwide. In Kenya, promoting maternal healthcare is one of the key priorities for the government even in the face of devolved structure. In the Sustainable Development Goals (SDGs), reduction of global maternal mortality ratio to less than 70 per 100,000 live births by 2030 is fundamentally expressed in goal 3.1. The focus on maternal health in policy and practice thus show the centrality of agenda in entirety.

The increased focus on maternal health, among other areas in healthcare, is perhaps a function of general poor health outcomes experienced and initiatives are a response to the trend. Although there have been important achievement towards comprehensive maternal healthcare, reduction and elimination of mother-hood related morbidity and mortality is a challenge especially in the low-income populations. The developing world for instance accounts for 99% of the maternal deaths globally, with sub-Saharan Africa alone accounting for 62% (WHO, UNICEF, UNFPA, 2014). In Kenya, the Kenya Demographic and Health Survey (2014) shows decline of maternal mortality to 362 deaths per 100,000 live births from the previous 488. However, poor maternal health outcomes continue to exert substantial burden in the national healthcare, given that only 61.2% of deliveries happen in health facilities and that most pregnancy-related deaths are linked to unskilled assistance during delivery (Gitonga, 2017). These statistics however vary from one place or region to another.

Increasing access to affordable healthcare has been conceived as one way of improving maternal health in the country. In Kenya, various initiatives, including the Beyond Zero campaign have demonstrated the will to achieve the maternal health goals. The provision of maternal healthcare free of charge in public health facilities by the Government of Kenya is a manifestation of the will to tackle barriers to comprehensive maternal healthcare. The aim is to encourage maternal health services sought from health facilities by focusing on availability, access, acceptability and affordability. A devolved system of governance promises to enhance these four parameters pertaining to maternal health.

In Kenya, the promulgation of the new constitution in August 2010 ushered in a devolved system of governance with two levels of government that is the National and County governments (Okech and Lelegwe, 2016). At the top or national level, Ministry of Health (MoH) is mandated to provide leadership on matters of health. They encompass issues such as national policy development; provision of technical support at all levels, monitoring quality and standards in health services provision in all the counties. On the other hand, the counties are mandated to provide essential health services delivery as provided for in the Fourth Schedule of the 2010 Constitution. This approach was a departure from centralized health care system which has been largely criticized for regional and provincial discrepancies in the health services distribution, disparities in resource allocations, and inequitable access to quality health services.

Over the past six years, Kenya has committed to reforms to fully decentralize the country's health management system and to increase decision-making power for resource allocation and service delivery at the county facility levels and to allow for greater community involvement in health management. The Kenya Health Policy 2014-2030 (KHP) guides the attainment of the constitutional obligations and the long-term health goals outlined in the Social Pillar of Vision 2030 (GoK, 2014). According to Kilonzo, Kamaara and Magak, (2017) there is a general perception that the devolved structure has increased access, affordability, and availability of maternal health services.

Nyandarua County has over six years into devolution. Health care services, specifically maternal health care services, have been improved in Nyandarua County and in nearly all counties in Kenya (KIPRRA, 2018). According to KIPRRA (2018) it is noted that the county also recorded reduction in maternal deaths arising from birth complications. Notably there is a perception of increased access to maternal health care and the number of women seeking maternal health services as well as giving birth in health facilities increased tremendously. KIPRRA noted that despite the recorded success in the service delivery, there are impediments that act as barriers to access of maternal health care services in Nyandarua County. The foregoing creates an opportunity to assess the status of maternal health care services in the county after adoption of the new framework of governance. The study therefore, empirically investigated the impact of the devolved system of governance in respect to maternal healthcare.

## **PROBLEM STATEMENT**

The need for all countries to focus on improving their capacities to meet the needs of women, children and the most disadvantaged in society is the hallmark of sustainable development goal's vision of not leaving anyone behind. This however cannot be realized without targeted investments across key sectors of the economy like health. These developments also need to be evidenced backed so that they respond adequately to intended ends. Successful delivery of quality all round health care thus forms a key cog in achieving this drive especially in undeveloped regions of the globe characterized by pervasive resource constrains. Although

WHO (2016) holds that health care capacity has increased across the world, the use of such services still remains low. A lot of evidence particularly of unacceptably high levels of maternal mortality in developing countries has pointed to poor maternal health care. Service utilization is associated with improved maternal outcomes. In Kenya, health systems were devolved in 2013 following the promulgation of the new Constitution of Kenya in 2010 which ushered in a framework of devolved governance. This was intended to bridge service delivery gaps that were rife under centralized planning and delivery of health services. Article 43 of the Constitution further guarantees right to the highest attainable standard of health, which includes the right to healthcare services which also includes reproductive health care. Similarly, access to quality health services is also enlisted under the social pillar of the Kenya's Vision 2030. Devolution as envisaged in the Constitution of Kenya 2010 provides for sharing of political, administrative and fiscal responsibilities between the national and the county governments. It is the assignment of these three dimensions of power that determine the level of devolution (Mwenda, 2010). Baker et al. (2014) found that devolution came with fears of disruption of services that are largely linked with concerns about the counties' readiness to deliver services. According to the SARAM baseline survey of 2016, health facilities were consistently found to be urban-based and ill-equipped. Rural areas on the other hand were found to be far divorced from the urban area and thus longer distances. The survey also noted other issues bordering upstream issues such as public participation in planning and downstream issues such as uptake and satisfaction with health services at both household and community levels. For every mother to access a health facility, the facility must be within reach. According to International Rescue Committee (2015:12) only 63 per cent of Kenyans have access to government health services which are located within an hour from their homes. Health facilities are unequally distributed across the forty-seven counties. This study therefore, sought to find out if more health facilities have been built in order to create easier access for the patients. On the other hand, devolution provides an opportunity to improve healthcare access and delivery. Further, it is a platform for people at the local level to be involved in healthcare decision-making.

### **OVERALL OBJECTIVE**

To investigate the impact of devolved health on maternal health care in Nyandarua County.

### **SPECIFIC OBJECTIVES**

1. To profile the existing maternal health services in the County.
2. To determine the effects of devolution on delivery of maternal healthcare services in Nyandarua County.
3. To identify the challenges experienced in the devolved maternal healthcare in Nyandarua County.

## LITERATURE REVIEW

### Devolved System of Governance

Devolution, also known as decentralization is a form of governance that constitutes a dynamic process where authority or power is transferred from central and national level to sub-national/local levels (Bossertand, 2002). In Kenya, the sub-national levels are well described by the local or county governments. Decentralized system dates back to 1963 when Kenya got independence. The British Colonial government proposed to the then formed state a decentralized framework of governance based on ethnicities. However, the state did not embrace the proposed system and instead opting for a highly centralized system with all the structures, functions and decision-making powers centered in the capital (KPMG, 2014).

Following consistent push from the Bretton Wood Institutions (World Bank and International Monetary Fund (IMF) on the need for member countries to conform to its policy of creation of a world community in which the people will be able to realize their potentialities, Kenya initiated many reforms towards decentralization of structures and functions as well as decision-making powers. As part of reforms on governance, the shift to devolution aims at bringing services closer to the people in terms of making decisions, planning, and managing public services. Devolution thus comes with implications in governance. This is because there is the reallocation of resources, functions and authority which might affect internal power relations as well as access based on decision-making. It is against this backdrop that devolution of services took place including redistributing the functions to other sub-national governments (County Governments.) Article 174 of the Kenya Constitution clearly articulates the rationale behind devolution as, among other reasons, self-governance, economic development and equitable sharing of national and local resources (WHO, 2012).

The shift to the decentralization of power (to local levels) also aims at promoting the participation of the community and enhances accountability for the efficient and effective distribution and management of public resources (Tsofa et al., 2017). Devolved (local) units have the power to make legislation relevant to the area meaning that the units have clear and legally recognized geographical boundaries over which they exercise authority and within which they perform their functions in their respective jurisdictions (World Bank, 2012). The trend in the devolution of authority has grown and countries that were previously not under a devolved framework of governance are seeing the need to join the bandwagon.

Adoption of devolution as a system came in place in 2010 when the constitution was promulgated to usher in a new era of governance in the Country. This is because previously, centralization was the form of government, with the central government assuming all powers and responsibilities since independence. In this shift, power and authority in the transferred functions were in the county governments. In 2013, the new system started being implemented and health was majorly a devolved function.

Over the past five years, Kenya has committed to reforms to fully decentralize the country's health management system and to increase decision-making power for resource allocation and service delivery at the county facility levels and to allow for greater community involvement in health management. The Kenya Health Policy 2014-2030 (KHP) guides the attainment of the constitutional obligations

### **Devolution in context of Health**

According to Kilonzo et al., (2017), devolution affects many aspects of governance including health. Indeed, one of the functions that have been devolved in the Kenyan context is health and the legal framework is provided in the 2010 constitution. The framework guarantees a rights-based approach to health access and service delivery to Kenyan citizens (GoK, 2010). All Kenyan citizens are entitled to the highest attainable standards of health including reproductive health (GoK, 2010). In Kenya, 2019 marks the 7th year of health decentralization. In the devolved unit of health, the National government, through the Ministry of Health (MoH), provides health leadership.

The Ministry of Health is mandated to develop a national policy on health, provide technical support and advisory and conducting monitoring and surveillance in quality and standards of health services (GoK, 2015). It is the responsibility of the MoH to provide guidelines in terms of policy concerning recruitment, training, placement and remuneration of health workforce across the country (GoK, 2015; Okech, 2016). The national government also has the mandate of managing national referral health facilities. All these functions are nested within the overarching legal framework that entails monitoring health standards and provision of health services for comprehensive healthcare delivery (GoK, 2012; Okech, 2016). On the other hand, the county governments are assigned the responsibility of providing essential health services. For this to happen, healthcare services (facilities and personnel) must be available to the people. Secondly, health financing must be aligned to the principle of affordability and access in financial terms. Thirdly, health governance is key in regulating the provision of health services.

In the spirit of Universal Health Care (UHC) and the constitution, there must be health facilities that are physically available for the population. However, according to the International Rescue Committee (2015), only 63% of Kenyans have access to government health services within the proximity of their homes. Further, there is an unequal distribution of health facilities across the 47 counties. In some counties, people, especially mothers and women seeking maternal health services have to travel for long distances to access the services. In such counties, (maternal) health indicators remain below average. Further, according to MoH (2014), the national average of births delivered at a health facility is 61.2%, painting a rather gloomy picture of maternal health, although commendable progress has been made to date.

Apart from the number of health facilities, there are discrepancies in the health personnel offering services disaggregated by county. The overall ratio of healthcare workers to the

population they serve fall short of the WHO recommended 230 per 100,000 people. By 2017, there were 169 per 100,000 although this is in pace with other countries such as Malawi, Uganda and Mozambique in the sub-Saharan region (Kimathi, 2017). Human resources in healthcare are also noted to be disproportionate and below average according to cadres and specialization set out by WHO and other organizations.

In a decentralized system, health governance occurs at two levels: the national government (MoH) and the county. Within the County level, county departments of health have the mandate to coordinate and ensure the delivery of healthcare services. The two levels, however, cooperate for health governance and implementation of health objectives highlighted in the Kenya Health Policy 2012-2030. Some of the components in the Policy endeavor to strengthen health governance by addressing health products, financing, health information, health technologies and health workforce (MoH, 2014).

### **Devolution and Maternal Healthcare in Context**

According to WHO (2019), maternal healthcare encompasses the health of women from pregnancy, childbirth to the postpartum period. For most countries in the developing world, maternal health is one of the pressing health challenges. WHO (2019), reports that about 830 in 100,000 women die from preventable causes related to pregnancy and childbirth and that 99% of the maternal deaths and complications occur in developing countries. According to Hodin (2017), poorer women are likely to receive poor quality of maternal care and many health facilities in Kenya lack basic infrastructure despite increasing demand for varied maternal services.

Maternal healthcare continues to form the subject of development agenda as illustrated in the Sustainable Development Goals, a carryover of the Millennium Development Goals. In Kenya, although maternal mortality rates seem to have plummeted from 488 to 362 in 2014 as shown by Kenya Demographic and Health Survey (2014), the problem persists and targets of 147 have not been achieved. The persistence has promoted further actions from the government including the commitment to fund the free maternal healthcare program. Challenges have however, been experienced at the national and county levels in the context of maternal health. Both National and county governments have critical roles to play in general health and maternal health in particular as shown in the transferred function of health in the context of devolution. In the devolution context, access to maternal health is construed in the context of availability, accessibility, affordability and acceptability (Kilonzo et al., 2017).

Availability refers to the extent to which people can obtain maternal health services easily. There is a general perception among patients that devolution has improved the availability of especially referral maternity health care. According to Kilonzo et al. (2017), there is an increase in the number of users seeking services from public facilities who report the sentiment of improvement. However, this varies from one county to another (Dapaah and Nachinaab, 2019). At the county

level also; there is increased availability of services such as ambulance which have been perceived to improve with devolution. There is a generally positive perception concerning the availability of referral maternal health. Further, they found out that many ambulances are in good condition and follow-up interviews attested that ambulances delivered women in need of emergency healthcare from either homes or lower-level facilities. A similar trend of availability of medicine was perceived to improve with devolution. Also, the research revealed that maternal healthcare patients can obtain the prescribed medicine as compared to the situation before devolution. One of the setbacks though is that County government departments of health can make availability of services hard.

Affordability component refers to the extent to which people can meet the costs associated with maternal healthcare services. A study by Kilonzo et al. (2017) conducted in Uasin Gishu and Kisumu counties show that generally, there is a positive perception that maternal health services are affordable, with reports that the average cost of both prenatal and postnatal services are cheaper in the devolved health system. There is perceived improved maternal health financing in Kenya. Concerted government initiatives including free maternal healthcare are evident to improve maternal health in the country (Kimathi, 2017). The “Beyond Zero” is a campaign to partly improve HIV, maternal and child health. In the Third Party Payments, the National Health Insurance Fund (NHIF) has increased coverage in Kenya, where the policy holders are increasingly using the service to seek maternal health services among other health products. Other approaches to financing maternal health include community financing and community health volunteering among low-income populations (Jacob and Krishnan, 2017; Population Council, 2012). Through devolution, unnecessary formalities that posed as bottlenecks to referral healthcare access in maternal health have been removed. Fewer barriers concerning access to maternal healthcare services as well as affordability have been reported in comparison to the centralized system (Kilonzo et al., 2017).

Devolution is associated with general infrastructural development in roads condition and general transportation. Improvement of transportation and roads condition by county governments has an indirect and direct influence on the access of maternal healthcare by the people (Panel, 2010). Road connection is particularly important for referral services and physical access to facilities for maternal healthcare services. Physical accessibility can be hampered by poor infrastructure.

World Bank (2014) contends that devolved maternal healthcare has had real and potential effects on the healthcare worker on this domain. The change in governance, leadership and financing styles as orchestrated by devolution has ripple effects on maternal healthcare workers, for better or for worse. The devolved health system can motivate or demotivate health workers on maternal healthcare and other sectors as well. There are studies on devolved health services in Kenya that have primarily focused on the job satisfaction of health workers (Baker et al., 2014; Oyugi, 2015; Mwamuye and Nyamu, 2014).



At the national and local levels, the workload for healthcare workers has increased because of increased demand and utilization and especially maternal healthcare services (Gitobu, 2018). The increased demand and utilization are not matched with appropriate provider-patient ratio. Approval by the Ministry of Health to increase staffing has not been implemented (Ministry of Health, 2014). Facilities are forced to look for alternatives to balance the deficit, many times by taking medical school interns or students whose services are not compensated. Because of under staffing, maternal health providers become overwhelmed and may compromise the quality of services. Such practices like choosing between two cases that equally demand attention are common. Maternal mortality can increase if there is a tendency to focus more on complicated referral cases instead of the approval approach to improve all the aspects of care.

### **Maternal Healthcare in Nyandarua County**

According to the Nyandarua CIDP (2018) report, the County boasts of an elaborate health infrastructure, with two level four public health facilities, one mission hospital, three nursing homes, seven level three health facilities, 32 level two facilities, 50 private clinics and dispensaries. The report also indicates that although the dispensaries in the county are not as many as intended, the county government has been actively initiating upgrades and construction of additional health facilities at this level. There is a fair distribution of health facilities across the county with an average distance of 3.2 kilometers to the nearest health facility according to the same report. Family planning services access in the county is wide spread and is found in all health facilities. The contraceptive acceptance rate has been indicated to stand at 67%.

From the 2013 total population of the county, the projected female population of reproductive age is 157,926 females, a figure that was projected to increase to 173,838 females by 2017 in the County. This implies that, with declining infant mortality rates, the high increase of the females in this age group will contribute to increased population in the county. This is attributed to increased maternal and child healthcare services. As such, this category has always been the target group for family planning programs (CIDP, 2013-2017; KNBS, 2012).

### **Challenges experienced in the Devolved Maternal Healthcare**

Devolved maternal healthcare has not existed without pressing challenges of a different nature. Delayed and cutting of funding by the national government has in many instances forced the county government to equally cut county budgets for health, grossly affecting budgeting for maternal healthcare (WHO, 2016). Although there is free maternal healthcare program from the national government, individuals and county governments continue to feel the pressure of indirect and embedded costs. Thus, there are funding-related challenges in shortage of resources, staffing, infrastructure and equipment, compromised quality of services, and population's limited access to facilities (Bourbonnais, 2013). The effects are exacerbated in the face of declining alternative sources of funding such as donor and taxes.

Further, the healthcare system has yet to make a breakthrough in the mobilization of the population on the importance of delivery in health facilities. Based on varied socio-cultural factors, certain counties in the devolved system still experience resistance from the population on mobilization against factors that undermine positive maternal health outcomes (Bourbonnais, 2013). These include activities such as Female Genital Cutting (FGC) and home deliveries assisted with unskilled attendants. These factors speak to the broader causes of maternal poor health (Bourbonnais, 2013).

In addition to such factors addressed above, lack of political goodwill first by the national government that is still holding on to some important functions such as procurement and in some cases forced procurement of goods and equipment not needed by counties has proved a formidable challenge. Delayed remittances and salaries for health workers has been the order of the day. Besides the national level challenges, even at the devolved units, politics have affected positive maternal health outcomes. There have been disregard in financing maternal healthcare in the general poor governance and political ill motives in the allocation of funds. Politics has also featured prominently in the hiring of staff even in the technical departments hence compromising the quality delivery of services.

### **THEORETICAL FRAMEWORK**

The study employed the classical Kleinman's "Local Health Care System" theoretical framework which sees medical systems as bonded within a complex socio-cultural matrix that researchers must be conscious about in their bid to understand operations within health care systems. Arthur Kleinman's (1978) writings noted that there exists a nexus between traditional medicine systems and biomedical systems within his proposed model. Kleinman's delineation of health care into folk, popular, and professional 'arenas' has been applied to numerous studies in medical literature. Much of these researches in this field have often stressed the conflict between traditional medicine and biomedicine (Saethre, 2007).

Kleinman (1980) further suggests that these three overlapping sectors of healthcare constitute the healthcare systems of all societies. He points out that, although the content of these sectors differ across cultures, their structure remain same. Essentially, the healthcare system is structured into popular, folk and professional sectors. Each of these sectors offers a particular approach to understanding the cause of, and prescribing treatment for, illness or disorder. The popular sector comprises of lay or non-professional who discusses about the ideas related to health and diseases. Such ideas end in discussion and they are never formulated for planned action in the 'healthcare system'. Quite in contrast, the professional sector comprising of organized health professionals mainly from the scientific medicine background has been successful in terms of setting the health agenda and making the medical profession superior to all other approaches to healthcare and form the delivery of healthcare services like in the Kenyan devolved

governments. The folk sector on the other hand comprises of sacred and secular healers which also takes into consideration some aspects of popular and professional sectors.

Each of these domains also possesses its own explanatory systems, social roles, interaction settings, and institutions (Kleinman, 1975). For instance, a sufferer is a sick family member or friend in the popular domain, may be a specific type of patient in the professional domain, and equally a client of one sort or another in the folk domain. The roles assumed within these entities are therefore, quite distinct. It is also clear that for particular episodes of sickness, different domains yield explanatory models that are used clinically to ascertain what is wrong with the patient and what should be done to them. Through diagnostic activities and labeling, health care providers negotiate with patients' medical "realities" that become the object of medical attention and therapeutics, a process referred to as the cultural construction of clinical reality (Kleinman, 1977). This is also evidenced through contributions by Hulton (2000) who in trying to define quality of care in relation to facility-based maternal health services, suggests that quality of the provision of care in relation to the service and the system, and the quality of care as experienced by users are important components. This further brings us to centrality of the doctor-patient complex in realizing positive health outcome, because when care is deemed to be poor by the user, seeking of services is likely to be negatively impacted (Harris, 2011; Sprague, 2011). It is critical to recognize that patient-doctor interactions are transactions between explanatory models, transactions often involving major discrepancies in cognitive content as well as therapeutic values, expectations, and goals (Freidson, 1961; King, 1962).

### RESEARCH METHODOLOGY

The study adopted a cross-sectional study design using qualitative approaches of data collection. The study population consisted of women of reproductive age ranging from 15 to 49 years who live in Nyandarua County and are users of maternal health care services from health facilities run by the County government. Primary qualitative data was collected using in-depth interviews with users of maternal healthcare services. Complementary qualitative data was also collected using focus group discussions and key informant interviews. On sampling, 30 respondents for in-depth interviews were sampled purposively. Focus group discussions participants and key informants too were sampled in similar manner. Qualitative data obtained were audio-recorded then transcribed verbatim with the transcripts checked for clarity and completeness before analysis proceeded. Thematic analysis was employed for data analysis. This followed a six-phase guide, as described by Braun and Clarke (2006). The first phase was about familiarization with the data by transcribing the audio data into written text. This was followed by reading all the interview transcripts to identify aspects of the data that were related directly to the study objectives. After that, the texts were re-read to ensure that they conveyed meaning and better understood. The third phase that followed involved the generation of initial codes, with focus on what was latent in the data and the underlying assumptions. In the fourth phase, themes were searched while in the fifth stage those same themes were reviewed and named. Finally a report of the findings was

developed from results which also included verbatim quotes projecting participants’ voices that related clearly to the study objectives.

## RESERARCH RESULTS

### Maternal Health Services in Nyandarua County

Improvement in maternal healthcare services is critical to saving the lives of hundreds of millions of women worldwide from complication from pregnancy and childbirth. To realize successful maternal healthcare services delivery, a wide range of issues from better skilled personnel, infrastructure and facilities, supplies, electricity connectivity, clean water supply and a referral network to support in times of emergencies are crucial.

At the onset, the County Health Administrator noted thus;

“In Nyandarua county there is a clear presence of necessary infrastructure and facilities across the many county facilities.”

This is evidenced from existing reports as well as interviews conducted with the mothers who have used the services. Further, many of the Maternal healthcare services available in the county are presented in Table 1 which clearly indicate that apart from few additions and improvements, the entire range of maternal health services offered at the county facilities were nearly the same across the two time periods-before and after 2013. It should be noted that changes witnessed are in terms of quality and quantity dimensions.

**Table 1: Maternal health services and infrastructure in Nyandarua County**

<b>Services and infrastructure before 2013</b>	<b>Services and infrastructure after 2013 in County facilities</b>
Maternity wings	New maternity wings across many county facilities
Counseling services for mothers	Counseling services for mothers
Medicines	Ambulance services
	Reliable water connectivity at the referral facility
	24 hour services
	C-Section delivery
Electricity connectivity	Electricity connection
	Equipment and supplies in maternity wards

Regarding the several improvements in facilities, it was noted that devolution has led to increased electricity connectivity, improved the water supply system, brought on board professional services including C-Section and ensured that services are prompt and offered on a

24 hour basis. There is also ambulance services that were traditionally unknown. One of the services users had this to say:

“When I delivered here in 2009, you had to be visited with buckets of water to help you. There was no running water available to patients unlike now where patients can use running taps everywhere here” (Mother at the ANC Clinic).

The providers note that generally, devolution has enabled them to make direct and local requisition of goods and equipment that they need. It has also enabled them to prioritize their needs despite the inherent challenges.

“It is now possible to directly make an impact regarding the small equipment that we need to make work easy and to save life. The procurement process and the decision making has been made simple and it is possible to agree and do things faster and efficiently” (Hospital Administrator).

### **Effects of devolution on maternal health care services delivery in the County**

#### **Improved infrastructure and health delivery systems**

Different counties have been on different pedestal in terms of delivering healthcare services to its people depending on resource allocation and its priorities. According to records from the Master facility list, Nyandarua County today boost a total of 78 health facilities (CIDP 2018-2022) from 65 facilities in 2012 (<https://www.ehealth.go.ke>). This is a marked improvement showing increased investment in ensuring health services are brought closer to the people which are the overriding clarion call for devolution.

The public has not been a letdown and has moved in droves to take advantage of this new state of affairs. In local dispensaries for instance all the services offered in the County are also free. This has further bolstered the entire healthcare service delivery architecture in rural health facilities in the County. Accounts from the Director of Health Services further affirm that in the other higher level facilities, services are highly subsidized to promote uptake and enable all to be served regardless of financial limitations. The voices of key informants attest to this fact.

“Communities have benefited a lot from devolution in terms of health services delivery here” (HCP, Nyandarua).

“Health services in all our rural facilities are offered free” (Reproductive Health Coordinator).

“One thing that we must give to devolution of health is improvement in infrastructure across all facilities which offer a great foundation for onward delivery of services” (Nurse, MCH clinic).

When asked of their opinion whether devolution of health had been beneficial to maternal healthcare services, there was a resounding “Yes” by all respondents, affirming that indeed lots of positive outcomes have been registered in this era of devolution. Some stated their reasons as captured in the following quotes:

“Services have been brought closer to people since all planning is done here”  
(Facility In-charge).

“In terms of equipment, infrastructure and facilities, counties have scored big except the issue of fewer staff” (Nurse in charge).

“Home deliveries have gone down as well as maternal deaths which are good indicators for us” (Director Health).

It is good to note that Kenya has long suffered from high maternal morbidity and mortality rates. According to World Health Organization (WHO), Kenya was among the 10 countries that comprised 58 percent of the global maternal deaths in 2013, contributing 2 percent of these deaths then (WHO, 2012). This state of affairs prompted renewed efforts to tackle the challenge with focus on the state of maternal health services being an utmost consideration. A numbers of factors were responsible, at least in part, by lack of access to quality maternal health services, including ante-natal, delivery, and post-natal services. With health guaranteed as a fundamental right under our Constitution through Article 43 (1) (a) which provides that every person has the right to the highest attainable standard of health, which includes the right to healthcare services, including reproductive health care, there was renewed impetus in making this a reality as shown above.

Kenyan on her part has been moving with speed to actualize this right by devoting more resources and finances to ensure more equipment, infrastructure and personnel are made available across the Country. With health a fully devolved function, a lot of responsibilities have been placed under County governments who are involved in day to day running of healthcare services within the Counties. If the momentum is sustained and good governance principles adhered to, the situation will greatly improve.

### **Increased uptake and utilization of maternal health services**

Key informants agree that Maternal healthcare services in Kenya took a new turn in 2013 when the President announced the beginning of free maternity services in all government facilities in the country, with immediate effect. The Government of Kenya therefore rolled out free maternity services program from the 1st of June, 2013 following this presidential declaration to encourage women to give birth in health facilities under skilled personnel. This Linda Mama initiative covers four comprehensive visits, delivery and an extra visit post-delivery for the mother.

The free services in addition to the other initiatives have enhanced patronage to the facilities for the professionalized care as affirmed by one provider;

“Many women now come for the check-ups and even for delivery given that the services are free after the presidential decree” (Nurse in charge).

Another provider noted thus;

“We have quite increased numbers compared to about two years ago. Linda mama has been the greatest driver” (Health care provider).

It has been reported that the journey of maternal health services further took a new turn when the Linda Mama program took over in 2014. This was an expanded program for delivering the free maternity health package to women. This package included antenatal care, delivery, postnatal care, conditions and complications during pregnancy and outpatient care services for the infant for a period of one year. This was a great improvement from the past where only delivery costs were waived.

Hospital deliveries, another key indicator of maternal healthcare delivery success also came under focus by the study. According to the KDHS (2009) only 44% of births in Kenya were delivered under the supervision of a skilled birth attendant. The same report also shows that traditional birth attendants continued to assist over 28% of births, relatives and friends with 21%, and in 7% of births, mothers themselves without any assistance. In a nutshell, the devolved healthcare system has succeeded in increasing the number of women who have access to facility based care compared to the situation before.

Records as indicated in Table 2 below paints a picture of hope and renewal with a 61.2% increase in health facility deliveries in 2015 in the country but a higher percentage reported for Nyandarua County. The table indicates a gradual increase of births delivered at a facility between 2012 and 2015 with an increase of 11.5%.

**Table 2: Division of child health and facility delivery**

<b>Maternal Health</b>	<b>County 2012</b>	<b>County 2015</b>	<b>Kenya 2015</b>
Births delivered at a health facility	74.6%	86.1%	61.2%

The biggest problem in most counties is that of quality of services. Most women who were interviewed did indicate that in some instances, the quality of services have deteriorated because of the increased patronage and the incapacity of the system to cope with the demand.

“We have problems with the number of people attending to us. We at times are forced to queue and are told to come back every time since there are few providers” (A 40 year old woman).

This issue of scarcity of professionals is one of the biggest challenges facing quality delivery. In delivering maternal health services the issue of quality remains a very important pull factor. Hulton et al.,(2000) defines quality as “the degree to which maternal health services for individuals and populations increase the likelihood of timely and appropriate treatment for the purpose of achieving desired outcomes that are both consistent with current professional knowledge and uphold basic reproductive rights.” The next section flags out the challenges.

### **Challenges experienced in devolving maternal healthcare services in the County**

#### **Heavy workload on healthcare workers**

With free services, the numbers of mothers have greatly improved and this has not been matched with staff numbers. Recruitment of more staff to cope with this influx of numbers has not been forthcoming leading to the few staff getting overwhelmed. Some providers confided that one area where devolution has paid leap service to is around staffing and their general development.

“Constant agitation and tensions between health workers and County governments have always centered on the issue of staff welfare and long working hours. Others include delayed promotions, political interference and lack of training opportunities” (Health Administrator, Nyandarua).

The findings were consistent with those of a study carried out in Nakuru County which also cited the challenge of overwhelming workload due to low staff numbers. Wamalwa (2015) acknowledges that it remains an area that counties had not matched their pronouncements with action. Low staff numbers have implications on quality of services being offered. Souza (2013) adds that there is mounting evidence that increasing access to and utilization of facility-based maternal care alone does not necessarily translate into better maternal outcomes, except quality of services being offered (van den Broek, 2009). Some respondents and providers also complained that shared facilities like ultrasound across multiple departments sometimes cause delays leading to patients staying longer before going home.

“We have one ultra sound machine that is shared by all departments here at the referral facility; mothers must go there to queue again” (Health Administrator).

“You are sent to go for ultra sound ant there you start to line afresh and even spend a whole day in this facility” (Mother visiting ANC clinic).

#### **Staff attitudes verses patient satisfaction**

Patient satisfaction can be a very contested issue within the space of service delivery and in healthcare circles, it is often pegged on the concept of caring, humanistic attribute of competence, confidence and compassion .Majority of the respondents held that good



communication, respect and positive attitude are some of the most important values that healthcare professional ought to observe while dealing with mothers as well as other patients.

Some mothers at the MCH clinic complained of foul language and poor attitude from nurses serving them both in the clinics as well as in the delivery rooms and this served in downing their spirits. One informant observed thus:

“The shouting and calling of names makes some women shy off from coming for maternal services. You want to be handled with respect and dignity and once the provider shows her frustrations on you, you regret why you came in the first place” (Mother at the MCH clinic).

Further, another services seeker noted that she spent too much time in labour when the nurses were just seated story-telling and not even bothering with her. She said:

“Imagine during one of my deliveries in 2015, the nurses were just seated there telling each other stories while I was struggling alone in labour. I felt very discouraged and even wondered what had taken me to that hospital in the first place. Such issues truly make us feel useless and rejected” (A 32 year old mother of three).

These findings are in line with that of Matua (2004) who reported that women who had gone to deliver in public hospitals had reported negative attitude of healthcare providers. He said that women are sometimes reluctant to use maternity services in public hospitals due to the fact that some midwives/nurses are said to be rude, insensitive and threatening mothers that they will be left to deliver without assistance.

### **Free services dependency and its challenges**

Free services are a good way of enticing usage and ensuring all are guaranteed access regardless of their financial limitations. Government's world over have always used this model to ensure that the citizenry are reached by key goods and services that are essential to their daily lives. This might include free water supply, free school and sometimes free healthcare services like in the case of Kenya where maternal health services have been isolated for this program. There have been those who believe that the free services have increased patronage. One informant noted thus:

“Things are better now and mothers now get it easy to come and deliver in hospital. It is free unlike our time when you paid money on this and that” (Mother accompanying grand-daughter to the clinic).

Some observers however, see these freebies as cultivating a state of dependency where users end up believing that everything should then be delivered under similar arrangement. Services like

ultra-sound which the mothers are always asking for was never included in the cover and this sometimes causes tension with providers and users.

“Here we had great problems when we had to get a formal directive from Nairobi to make mothers believe that ultra sound services were not part of this Linda Mama package, for them they want it” (Health administrator).

The issue of free services has also impacted negatively on the ability of the facility to ensure that it collects enough revenue to plough back to the provision of quality services. Despite the assurance that each delivery will be compensated from the national kitty, nothing is forthcoming hence forcing hospitals to request patients to buy certain essentials during deliver. This has in effect created tension between the providers and services seekers. Some women have accused the hospital administrators and doctors of fleecing them.

The services seekers on their end have complained bitterly and at times demanded to be told what aspect of the services provided are free. During the interviews, this was a common recurring complaint. One lactating mother summarized it as follows:

“As is always, free things are always ‘expensive’. One wonders what is free when you are asked to buy this buy that whenever you are in labour. The referral to purchase certain things from the pharmacies around is challenging and makes the hospital delivery a nightmare for those who are not prepared” (A 28 year old mother of two).

A number of health care workers acknowledged that free maternity services have impacted on mothers but a number are complaining about the quality of services. As a way of dealing with the situation, mothers are enlisting for the NHIF cover which has more services provided and covers more ailments beyond pregnancy.

Other challenges reported include the usual issue of distance to the clinics, other related costs that have to do with transport and other supplies that are not provided for at the facilities, general level of poverty among many residents of the county and the politicization of healthcare. It is reported that Governors at times have different priorities and supplies may not be as regular as it should be.

The providers did mention the issue of numeration and the delays they face in getting their salaries. The idea of salaries being paid at the devolved units and given the problems of finances has made this a big problem leading to frequent strikes by health workers and withdrawal of services. This in the end affects services delivery and reduces confidence in the public sector. A doctor noted thus:

“The treatment meted out on doctors working in the devolved units leaves a lot to be desired. One wonders why the salaries always delay until threats are issued. This kills morale and a number of well-intentioned professional are finding it difficult to sustain their services in that environment” A doctor in one of the facilities).

The frequent strikes and withdrawal of services also got the services seekers complaining about the unavailability of crucial services. Others have noted that their relatives suffered a lot during the periods in which the healthcare workers were on strike. One woman opined thus:

“During the workers strike in 2017, many patients suffered and some even died while in the corridors of public health facilities. Those who were able simply took their relatives to private clinics. I think something must be done to ensure that crucial sectors like hospitals are cushioned against these forms of disruptions. It is always the poor people and mostly women who suffer the most” (A 43 year old mother of four).

Despite the noted challenges, many women were of the opinion that the free services accompanied by the devolution of healthcare have enabled them to access services that they traditionally did not. It has also brought professional services closer to the people. If well managed, devolution has a greater potential to improve the health of the citizens in general and maternal health in particular. They appealed to government to ensure that healthcare workers are paid by the treasury at the national level to avoid the delays that have been witnessed in the recent past.

## CONCLUSION

There is no doubt that maternal health services have been positively impacted by the advent of devolution in Kenya. Nyandarua County on her part has also recorded meaningful gains in maternal health services delivery with hospital deliveries recording massive improvements over the years.

Devolution of health together with other programs supported by national government and partners have therefore, played a great role in ensuring that critical health services for reducing maternal morbidity and mortality from family planning, antenatal care, skilled attendance during labor and delivery, and postnatal care are delivered to the mothers.

Though registering success, there still stand a number of challenges around issues of personnel where the low staff numbers is likely to wash away the gains already realized in this front and must thus be given due attention by the county government. This will go a long way in addressing improvements in quality of services which encourages more women to seek care.

Attending to the staffing challenges will also promote timely access to care which is also a crucial issue mothers complain about.

The other major concern that must be tackled with the urgency it deserves is the issue of staff salaries that occasion the frequent strikes. This has completely eroded most gains and must be attended to as a matter of urgency. The government commitments towards re-imbursement must also be a critical concern so that maternities can be self-sufficient in providing the crucial services needed to the many needy families. Alternative forms of financing must be thought through to supplement what comes from the state coffers and to this end, the NHIF approach that involve direct remittance to the facilities would an appropriate model.

### **RECOMMENDATIONS**

From the above findings, the study is making the following recommendation both in the short term and long term so as to ensure that matters around maternal health services are delivered without any glitches and to finally realize the right to the quality healthcare services by all.

#### **Short Term**

1. Employment of more healthcare providers should be a matter of priority and county governments must move with speed to ensure reasonable staff to patient ratio is achieved.
2. Improvement in customer care skills and attitudes of health care providers in the MCH department to ensure that women do not feel unduly despised when they seek for services and that the hospital environment remains a friendly place where mothers feel cared for.
3. The government allocates more resources to the ministry of health to help address the issues of human resources and equipment gaps in government hospitals. Counties must be allowed to prioritize their needs so that forced purchases are avoided.

#### **Long Term**

1. Adequately addressing the CHVs matter so that they are actively involved especially in sensitizing the mothers on the value of seeking maternal health services in health facilities. This will support in mopping up the few who are still not visiting health facilities due to one reason or another. Efforts to enact a law at the County Assembly that ensures that their stipend is provided for by the County must be fast- tracked.
2. The conversation on realizing the Health Service Commission just like the one for teachers remain the silver bullet to restoring pride in this very important profession. The ongoing debates on constitutional change must therefore, take into account this reality as a matter of urgency. This will ensure harmonization especially in pay which currently has serious discrepancies across counties and is a major source of strife in the health sector. It is hoped that this will go a long way in ensuring that healthcare workers are paid in time and in accordance to their qualifications.

3. As a country, there is need to invest in our people through the provision of the constitutionally approved high standards of healthcare and more so, the reproductive health.
4. There is need for further research to understand the extent to which quality aspects of maternal health services have been impacted by the introduction of free maternal healthcare services in public hospitals across the country.

### REFERENCES

- Baker, C, Mulaki, A, Mwai, D, and Dutta, A, (2014). Devolution of Healthcare in Kenya: Assessing County Health System Readiness in Kenya. A Review of Selected Health Inputs, Washington DC: Health Policy Project, Futures Group
- Bosire, C., Phal Ghai, Y. & Cotrell Ghai J., (2015). ‘*Understanding Devolution*’: Color print Limited.
- Bossert T., J, and Beauvais J., C (2002). Decentralization of health systems in Ghana, Zambia, Uganda and the Philippines: a comparative analysis of decision space. *Health Policy Plan*, 17:14–31.
- Bourbonnais, B.N. (2013). Implementing free maternal health care in Kenya: Challenges, strategies and Recommendations. The Kenya National Commission on Human Rights.
- Dapaah, J. M., & Nachinaab, J. O. (2019). Socio-cultural Determinants of the Utilization of Maternal Health Care Services in the Tallensi District in the Upper East Region of Ghana. *Advances in Public Health*, 2019.
- Freidson, E. (1961). Patients’ Views of Medical Practice. New York, Russell Sage Foundation.
- Gitobu, C. M., Gichangi, P. B., & Mwanda, W. O. (2018). The effect of Kenya’s free maternal health care policy on the utilization of health facility delivery services and maternal and neonatal mortality in public health facilities. *BMC pregnancy and childbirth*, 18(1), 77.
- GoK (2008), Kenya National Health Sector Strategic Plan (KHSSP) II. Nairobi, Government Printers, Nairobi.
- GoK (2012), *Kenya Health Policy Framework*, Government Printers, Nairobi Kenya.
- Government of Kenya, (2013). Kenya Health Policy 2012-2030, Nairobi: Ministry of Medical Services and Ministry of Public Health and Sanitation.
- GoK, (2015), Kenya Health Bill 2015, Government Printers, Nairobi
- Government of Kenya (2014). *Options for Kenya’s Health Financing Systems: A Policy Brief*, Nairobi: Ministry of Health.
- Government of Kenya, (2010). *Constitution of Kenya*, Nairobi.
- Harris B, Goudge, J, Ataguba J. E, McIntyre D, Nxumalo N, Jikwana S, et al. (2011). Inequities in access to health care in South Africa. *South African Journal of Public Health*. 2011;32:S102–23.
- Hodin, S. (2017). Maternal Health Care in Kenya: Poor Quality for Poor Women? Retrieved 20 May 2019 from: <https://www.mhtf.org/2017/03/15/maternal-health-care-in-kenya-poor-quality-for-poor-women/>
- Hulton AL, Mathews Z, Stones RW (2000). *Framework for the evaluation of quality of care in maternity services*. University of Southampton (UK).

- International Rescue Committee, (2015). Every Voice Counts Program Report, Nairobi: International Rescue Committee.
- Jacob, M and Krishnan, C. (2017). Community Involvement in Health Care Financing: Impact, Strengths and Weaknesses: A Synthesis of the Literature; Washington, DC: World Bank.
- Kilonzo, S., Kamaara, E. and Magak, K. (2017). *Improving Access to Maternal Health Care through Devolution in Western Kenya*. IDS Bulletin, 48(2)
- Kimathi, L. (2017). Challenges of the Devolved Health Sector in Kenya: Teething Problems or Systemic Contradictions? *Africa Development*, Vol. XLII, No. 1, 2017, pp. 55-77
- King, S. (1962). *Perceptions of Illness in Medical Practice*. New York, Russell Sage Foundation.
- KIPPRRA (2018), Assessment of healthcare delivery under the devolution. Nairobi: Kenya Institute for Public Policy Research and Analysis.
- Kleinman, A. (1980). *Patients and healers in the context of culture: An exploration of the borderland between anthropology, medicine, and psychiatry*. Berkeley: University of California Press.
- Kleinman, A. (1978). Concepts and a model for the comparison of medical systems as cultural systems. *Social Science & Medicine*. Part B: Medical Anthropology, 12, 85–93.
- Kleinman, A.M. (1975). Explanatory models in health care relationships, in *Health of the Family* (National Council for International Health Symp) Washington, D.C., NCIH, 1975, pp. 159-172
- KPMG (2015), Devolution of Healthcare Services in Kenya: A Conference Report
- Kenya National Bureau of Statistics (KNBS). 2012. *2009 Population and Housing Census*. Nairobi, Kenya: KNBS.
- Kenya Demographic and Health Survey (2014). December, 2015. <https://www.dhsprogram.com/pubs/pdf/FR308/FR308.pdf> (accessed Feb 20, 2019).
- MOH, (2014), Human Resources for Health Norms and Standards Guidelines for The Health Sector: Nairobi, Kenya.
- MOH, (2016), Health Care Waste Management Plan: Nairobi, Kenya.
- Mwamuye, K.M. and Nyamu, H.M., (2014). 'Devolution of health care system in Kenya: A strategic approach and its implementation in Mombasa County, Kenya', *International Journal of Advanced Research*, Vol. 2, Issue 4, pp.263-268
- Mwenda, A.K., (2010). 'Economic and administrative implications of the devolution framework established by the constitution of Kenya', Institute of Economic Affairs.
- Nyandarua County Integrated Development Plan (2013-2017). Republic of Kenya
- Okech, C. T., (2016), Devolution and universal health coverage in Kenya: situational analysis of health financing, infrastructure & personnel, *International Journal of Economics, Commerce and Management*; Vol. IV, Issue 5 Page; 1-17
- Okech, C. T., and Lelegwe L.S., (2016), Analysis of Universal Health Coverage and Equity on Health Care in Kenya, *Global Journal of Health Science*, Vol. 8, No. 7. 218–227
- Oyugi, O. (2015) 'Potential Impact of Devolution on Motivation and Job Satisfaction of Healthcare Workers in Kenya: Lessons from Early Implementation in Kenya and Experiences of Other Sub-Saharan African Countries', *Journal of Global Health Care Systems* 5.1: 1–30.
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). Los Angeles: Sage.

- Panel, A. P. (2010). Maternal Health. *Investing in the Lifeline of Healthy Societies and Economies*. Policy Brief, Africa Progress Panel, Geneva, Switzerland.
- Population Council (2012). Community health workers for Maternal and child health. Fact Sheet. [www.popcouncil.org](http://www.popcouncil.org)
- Saethre, E. J. (2007). Conflicting traditions, concurrent treatment: Medical pluralism in remote aboriginal Australi. *Oceania*, 77(1),95-110
- Sprague C, Chersich M.F, Black V.(2011). Health system weaknesses, constraints, access to PMTCT and maternal HIV services in South Africa: a qualitative enquiry. *AIDS Res Ther* 2011; 8(10).
- Souza J.P, Gulmezoglu A.M, Vogel J, Carroli G, Lumbiganon P, et al: (2013) Moving beyond essential interventions for reduction of maternal mortality (the WHO Multi-country Survey on Maternal and Newborn Health): a cross-sectional study. *Lancet*, 381:1747-1755.
- Tsofa, B., Goodman, C., Gilson, L. and Mlyneux, S. (2017). Devolution and its effects on health workforce and commodities management – early implementation experiences in Kilifi County, Kenya. *Int J Equity Health*. 2017; 16: 169-196.
- van den Broek N.R, Graham W.J (2009). Quality of care for maternal and newborn health: the neglected agenda. *Bjog. Suppl* 1:18–21.
- Wamalwa, E. W. (2015). *Implementation challenges of free maternity services policy in Kenya: the health workers' perspective*. *Pan African Medical Journal*, 22.
- WHO (2019). Maternal health. Retrieved 20 May 2019 from: <https://www.who.int/maternal-health/en/>
- World Health Organization (2016). Health system outcomes. African health observatory. Retrieved from [http://www.aho.afro.who.int/profiles\\_information/index.php/Ethiopia:Health\\_system\\_outcomes](http://www.aho.afro.who.int/profiles_information/index.php/Ethiopia:Health_system_outcomes) .
- WHO (2014), Sustainable Development Goals (SDGs). Available at <http://www.who.int/sdg/en/> Accessed 22-02-2019.
- World Bank (2014). Delivering Primary Health Services in Devolved Health Systems of Kenya: Challenges and Prospects, <http://documents.worldbank.org/curated/en/2014/09/20351566/delivering-primary-health-services-devolved-healthsystems-kenya-challenges-opportunities>, accessed 7 March 2019.
- World Bank. (2012). *Devolution Without Disruption: Pathways to a Successful New Kenya*. Nairobi, Kenya: World Bank and Australian AID.
- World Health Organization (WHO), UNICEF, United Nations Population Fund (UNFPA), and the World Bank, Trends in Maternal Mortality: 1990 to 2013 (Geneva: WHO, 2015). Accessed on 12/10/2019.