A retrospective comparative analysis of the maternal and child health MDGs in Rwanda, Burundi and Uganda: Beyond 2015.

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Declaration

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Abstract

The timeline of the Millennium Development Goals (MDGs) elapsed in 2015, global indicators showed that Africa still accounts for almost half of all child deaths globally and has the world's highest maternal mortality rates. By the year 2015, Africa as a continent was unable to meet the maternal and child health MDG targets.

This study seeks to retrospectively compare, the progress made on the maternal and child health related Millennium Development Goals namely: MDG4- Reduce child mortality and MDG5- Improve Maternal Health, in Burundi, Rwanda and Uganda. Indicators show that, only Rwanda was able to achieve the maternal and child health MDGs. Specifically, the study provides a contextual understanding of the policy interventions implemented by Rwanda, despite starting from a lower base in comparison to Burundi and Uganda due to the 1994 Genocide against the Tutsi. The study also sought to understand how broad governance indicators specifically, government effectiveness and control of corruption vary between the three countries: Rwanda, Burundi and Uganda as well as their impact on maternal and child health trends.

The study illustrates how Rwanda's governance is underpinned by a system that is strongly hinged on ideological clarity, good leadership, country ownership for effective policy execution and enforcement of accountability through home grown solutions like *imihigo. T*he integration of *imihigo* within the health sector has, in addition to other innovative interventions, like the implementation of the Community Health Insurance Policy, deployment of over 60,000 community health workers, innovative use of ICT in health like rapid short message service (sms), drones among others.

In contrasting the governance of the health sectors in Rwanda and Uganda, one of the striking differences is that in Rwanda, there are strong linkages between the local and central levels for policy implementation and evaluation, and between the health sector and finance ministry. These are indicative of strong intra-governmental accountability. Uganda on the other hand, despite having good laws and policies in

place, still faces poor implementation and lack of strong accountability mechanisms, due to low levels of ownership.

The contrast is also sharply illustrated by Rwanda's higher score in the indicative measures of "government effectiveness and control of corruption". In short, better quality governments usually have positive effect on development outcomes thanks to overall efficiency in the delivery of public services.

Specific recommendations include for Uganda to generate good local governance, effective implementation of decentralisation, follow through of policies and enforcement of accountability for performance failures, the use of community health workers to address existing scarcity of health sector personnel as well as the adoption of ICT policies to support the implementation of health interventions.

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Dedication

This work is dedicated with my heartfelt gratitude to my entire family for their love and support, particularly to Leonard, my husband and life partner- for always believing in me and constantly pushing and urging me on. To our sons, for putting up with my absence during my studies and the writing of this thesis, their constant and unwavering support has been inestimable. I pray God's infinite blessings and grace be with you always.

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CHAPTER 1: Introduction

1.1 Background

The Millennium Development Goals (MDGs) whose timeline spanned the years 2000 to 2015 were a "historic and effective method of global mobilisation to achieve a set of important social priorities worldwide. They were recognised as a response to many of the world's foremost challenges as they appeared in 2000 and expressed widespread public concern about poverty, hunger, disease, unmet schooling, gender inequality, and environmental degradation. These MDG priorities that were packaged into an easily understandable set of eight goals with time bound objectives helped to promote global awareness, political accountability, improved metrics, social feedback, and public pressures" (Sachs 2012:2206, McArthur 2014:5, Richard et al 2011:42).

Compared to other regions, the baseline figures for Africa on most Millennium Development Goal indicators were relatively low (UNECA 2015:1). However, with the curtain having been drawn on the Millennium Development Goals (MDGs), indicators show that Africa still accounts for almost half of all child deaths globally and has the world's highest maternal mortality rate and was therefore unable to meet the maternal and child health MDG targets at the end of 2015.

This paper seeks to broadly examine the specific factors pertaining to Rwanda's achievement of the maternal and child health outcomes for MDG 4; Reduce child mortality and MDG 5; Improve maternal health in comparison to Uganda and Burundi. These three countries were selected because they not only share geographical borders, but they also fall within the same low-income bracket and share similar post conflict contexts.

1.2 Purpose of the study

The purpose of this study is to identify and analyse the factors underpinning Rwanda's successful achievement of the maternal and child health millennium development goals, with a view to elaborate the specific extent of Rwanda's superior performance as compared to Burundi and Uganda. Furthermore, an analysis will be made on how this performance is a consequence of better approaches used in managing its health care delivery system coupled with the impact of broad governance factors like government effectiveness and control of corruption.

1.3 Problem statement

There have been many academic studies conducted on the Millennium Development Goals-MDGS. However, there has not been sufficient research conducted on the role and impact of governance on the achievement of the MDGs in general and in particular, how resource poor countries like Rwanda, despite its tragic past related to the 1994 Genocide, were able to rebuild health care systems and deliver on maternal and health MDGs by the 2015 deadline. This has invariably led to overlooking an area that would provide for good research in development policy, specifically relating to the critical importance of governance in the achievement of development objectives in post conflict country contexts.

1.4 Research questions

In order to achieve the purpose of the study, the following questions will be discussed:

- Why was Rwanda able to register more progress in meeting the maternal and child health MDGs in contrast with Burundi and Uganda?
- What were the specific enabling factors behind Rwanda's superior performance compared to Uganda and Burundi in meeting maternal and child health targets?

- What are the different policy initiatives and investments outside the health sector that drive MDG outcomes?
- How do broad governance indicators specifically, government effectiveness and control of corruption vary between Rwanda, Burundi and Uganda?
- What is the impact of these governance indicators on maternal and child health MDG trends in the three countries?
- Considering the preceding questions, what can Uganda and Burundi do to improve their maternal and child health outcomes?

A contextual understanding of the specific policy interventions put in place and implemented by countries like Rwanda, which was able to meet both the maternal and child health MDG targets by 2015 is very timely in informing the policy directions for sub Saharan African countries as they implement the SDGs. The observations that emanate from this study could be of importance in contributing to the existing body of knowledge on the issues surrounding the development and governance of public health policy in developing countries such as those in sub Saharan Africa.

1.5 Methodology

The case study design will use both qualitative approaches and quantitative approaches. The qualitative approach sources information based on a grounded theory approach and systematic desk review of the related literature, national policy documents and four Demographic and Health Surveys for Rwanda (2000, 2005, 2010, and 2015). For Uganda and Burundi, which both do not have current Demographic and Health Surveys (DHS), reference was made to the World Bank's Human Development Indicators (HDIs). Reference will also be made to the Worldwide Governance Indicators (WGIs) specifically in comparing government effectiveness and control of corruption. The data collected, spanned the period between 1990 and 2015, which are considered the baseline and end of the MDGs respectively. Furthermore, additional reference is made to the writer's personal experience in the public service, in order to illustrate context specific instances where control of

corruption and government effectiveness is exercised in Rwanda.

The quantitative aspect of the study is mainly based on World Development Indicator data, which is a comprehensive statistical database of the World Bank on health, nutrition, environment, economy and population data among a variety of others. Furthermore, the latest available Demographic and Health Surveys (DHS) on the three countries were consulted. DHS surveys are nationally representative household surveys that collect and provide current information on a different variety of indicators in areas such population, maternal and child health as well as nutrition. The World Bank and the United Nations Development Programme (UNDP) country websites were also consulted to get individual country overviews, political context and development challenges for each of the countries; this was chosen because of the uniformity in presentation of information and reporting styles.

The above-mentioned data sources are regarded as reliable and use uniform reporting styles, which provides for ease of data interpretation and analysis. Thereafter, graphs were made in Microsoft-excel to depict the trends emerging from the three countries. It is important to note that, the trends observed are only concerned with the data used. The observations from the data, cannot be a basis to predict proper policy implementation in the three countries nor can predictions of political and socioeconomic stability be made, because these factors inadvertently have an effect on the ability of countries to make requisite progress in reducing maternal and child mortality goals.

Furthermore, country comparisons between Uganda, Burundi and Rwanda will be done using the Worldwide Governance Indicators (WGI) as a proxy assessment of two dimensions of governance; government effectiveness and control of corruption. The WGI draws upon the informed views of policymakers, business people and representatives of civil society reported in 32 data sources to construct indicators for six functional properties of governance: 1) Voice and Accountability (VA), 2) Political Stability (PS), 3) Government Effectiveness (GE), 4) Regulatory Quality (RQ), 5) Rule of Law (RL), and 6) Control of corruption (IGES discussion paper 2014-02)

The WGI is a useful tool for broad cross-country comparison and for evaluating broad trends over time.[1] Kaufmann (as cited in Joshi 2011:343) mentions that, the "WGIs cover 212 countries and have notable strengths of having a broad scope and their effort to measure implementation in practice rather than formal rules, as well as their reporting of statistical margins of error for each governance estimate".

Further still, the WGI is particularly useful for making comparisons of country governance performance over long periods and will be particularly suited for comparing the period 1990-2015 which falls within the remit of the MDGs under question.

It is important to note on the other hand that, one limitation of the WGI is that all country scores are accompanied by standard errors. These standard errors reflect the number of sources available for a country and the extent to which these sources agree with each other, this invariably shows that, governance is hard to measure with any data.[2]

Lastly, the study setting was solely based in Rwanda and consequently this enabled easier access to current government publications on maternal and child health. However, this was not the case for Uganda and Burundi, where the internet was the sole source of accessing government publications, the main drawback is that, most of the specific country information available on both countries is not as comprehensive and up to date as that of Rwanda.

[1] http://info.worldbank.org/governance/wgi/#home
[2] Ibid.

1.6 Limitations of the study

In order to reach the intended conclusions, the scope of this dissertation is restricted to the following:

- Limited to the Maternal and child health MDGs (4 and 5).
- The study focuses on the period from 1990 to 2015, which corresponds to the baseline and endpoint for the MDGs.
- The study only covers Burundi, Rwanda and Uganda.

1.7 Chapter outline

Flowing from Chapter 1- Introduction, the study is organised as follows:

CHAPTER 2: The literature review explores the fundamentals of the Millennium Development Goals; it briefly elaborates the concept of governance and explores some of the available literature on the interplay between governance and the MDGs. Lastly it conceptualises the two governance indicators (government effectiveness and control of corruption) which will guide the country comparisons.

CHAPTER 3: This section provides a comparative presentation and discussion of the broad trends in outcomes on the Maternal and Child health MDGs in Burundi, Rwanda and Uganda. It specifically highlights the extent to which Rwanda outperformed Uganda and Burundi towards meeting the maternal and child health MDGs. Lastly, it details broad socio-economic policy contexts in the three countries and discusses the economic and political factors affecting MDG trends using comparative descriptive statistics.

CHAPTER 4: In this chapter the discussion will centre on the background given in the two preceding chapters to introduce and explain how Rwanda's superior performance is a consequence of the better approaches- compared to the other countries. The section will also highlight how the MDG focus areas (maternal and child health) were adapted to the governance and management of Rwanda's health

care system, and then concludes by contrasting both Rwanda and Uganda's approach to improving health care outcomes – and the quality of their respective implementation efforts.

CHAPTER 5: The conclusion draws up proposed policy recommendations, drawing from the experience of the MDGs and based on the retrospective comparative analysis in chapter 4, it proceeds to critically examine what can be done differently by Uganda in order to accelerate the reduction of maternal and child mortality and deliver on the health related Sustainable Development Goals, specifically the SDG 3- which addresses Maternal and Child Health.

CHAPTER 2: Literature review

The scope of the secondary literature reviewed, covers the theoretical base for understanding the topical areas significant to the study. It elaborates the background and fundamentals of the Millennium development goals, discusses the progress made on the maternal and child health MDGs at continental and global levels. The review then goes on to highlight the concept of governance and explores some of the available literature on the interplay between governance and the MDGs. Lastly, it conceptualises the two governance indicators-government effectiveness and control of corruption, which will guide the country comparisons.

2.1 The Millennium Development Goals-MDGs

There is a vast amount of literature on the Millennium Development Goals and several schools of thought exist, on their perceived relevance and applicability especially for developing countries.

According to a number of analyses (Gaffey et al, 2015:285; Clarke and Feeny, 2011;510), the Millennium Development Goals (MDGs), "emerged from the United Nations Millennium Declaration adopted by 189 countries in September 2000, they articulated an ambitious set of aims to motivate and accelerate global progress in economic and social development and environmental sustainability. Including 21 targets measured through 60 indicators to be achieved by 2015. Whilst the MDGs indicators were powerful statements of intent, it was the timelines associated with the MDGs, which are of particular importance as these targets were set on a 1990 baseline and aimed for a minimum acceptable improvement by 2015".

The MDGs were established as (McArthur 2014:5) mentions, "to be a response to many of the world's foremost challenges as they appeared in 2000, this was due to the fact that, at that time, the policy orthodoxy which focused on development through macroeconomic fundamentals had achieved somewhat limited results". In the same vein, the formulation and implementation of the MDGS was also seen according to (Hulme 2010:15) as an avenue "to reduce poverty and human deprivation at

historically unprecedented rates, through collaborative action" which departed from the previous singular emphasis on economic growth to a broader development agenda prioritizing issues related to poverty reduction, education health and gender.

Furthermore, (Sachs cited in Hulme 2010:21, UN 2016, McArthur 2013, McArthur 2014,) add that, "this was also reflected in their comprehensive nature and the systematic efforts taken to finance, implement and monitor them. The MDGs have been instrumental in guiding and mobilising development efforts by emphasizing outcomes and have enabled a multifaceted approach to tackling poverty as well as provided a standard for citizens to hold their governments accountable".

Despite all this however, Jolly et al as cited in (Vandermoortele 2009:355) mention that, "the Millennium Development Goals (MDGs) got equal praise and criticism since the day they came into being. They are seen as one of the UN's greatest achievements, arguing that global goals and benchmarks have influenced policies and outcomes in many countries".

In summary, one can argue that, since their inception and adoption in 2000, the MDGs evolved from complex global debates, to proposals and processes that have emerged to shape the discourse on international development cooperation and policy especially concerning developing countries.

Having provided some contextual background on how the MDGs came into being, we can move our discussion to Millennium Development Goals 4 and 5 (both of which form the bedrock of this paper), highlighting the progress registered towards meeting the MDGs at the global and continental levels.

During the process of crafting the MDGs, according to (Richard et al 2011:43), "health was recognized as a key determinant of human development as evidenced by three out of eight MDGs being directly concerned with health outcomes, with MDGs 4 and 5 focusing on improving the health and survival of children and women respectively as priority target groups".

This is further elaborated by (Gaffey et al 2015:76), who point out that, "at the centre

of the MDGs is MDG 4- reduction of child mortality by two-thirds, and MDG5- improvement of maternal health through a reduction of maternal mortality by three quarters and universal access to reproductive health" to be achieved within a 15 year timeline from 2000-2015.

The Millennium Development Goals are highlighted and elaborated in terms of focus area and targeted outcomes in Table 1 below.

Table 1: The Millennium Development Goals (MDGs)

#	Dimension	Goal	2015 Target
1	Income/Food	Eradicate extreme poverty and hunger	½ the 1990 proportion of people with hunger and incomes under 1$/day
2	Education	Achieve Universal Primary Education	Primary School completion for all boys and girls
3	Education/women	Promote gender equality and empower women	Gender parity at all levels of education (primary, secondary, tertiary)
4	Health	Reduce Child Mortality	1/3 the 1990 under- mortality rate
5	Health	Improve Maternal Health	1/4 the 1990 maternal mortality ratio
6	Health	Combat HIV/AIDS, Malaria and other diseases	Halt and reverse the spread of HIV/AIDS, Malaria, other major diseases
7	Environment	Ensure environmental sustainability	Reverse the loss of environmental resources, ½ the 1990 level of people w/o safe drinking water and sanitation, improve lives of 100 million slum dwellers (by 2020)
8	Aid	Develop a global partnership for development	Develop a non-discriminatory trading and financial system, deal with developing countries 'debt, provide essential drugs, make ICT available, assist landlocked small island states and least developed countries.

Source: Adapted from Joshi D. (2011).

2.1.1 Global progress on reduction of child mortality

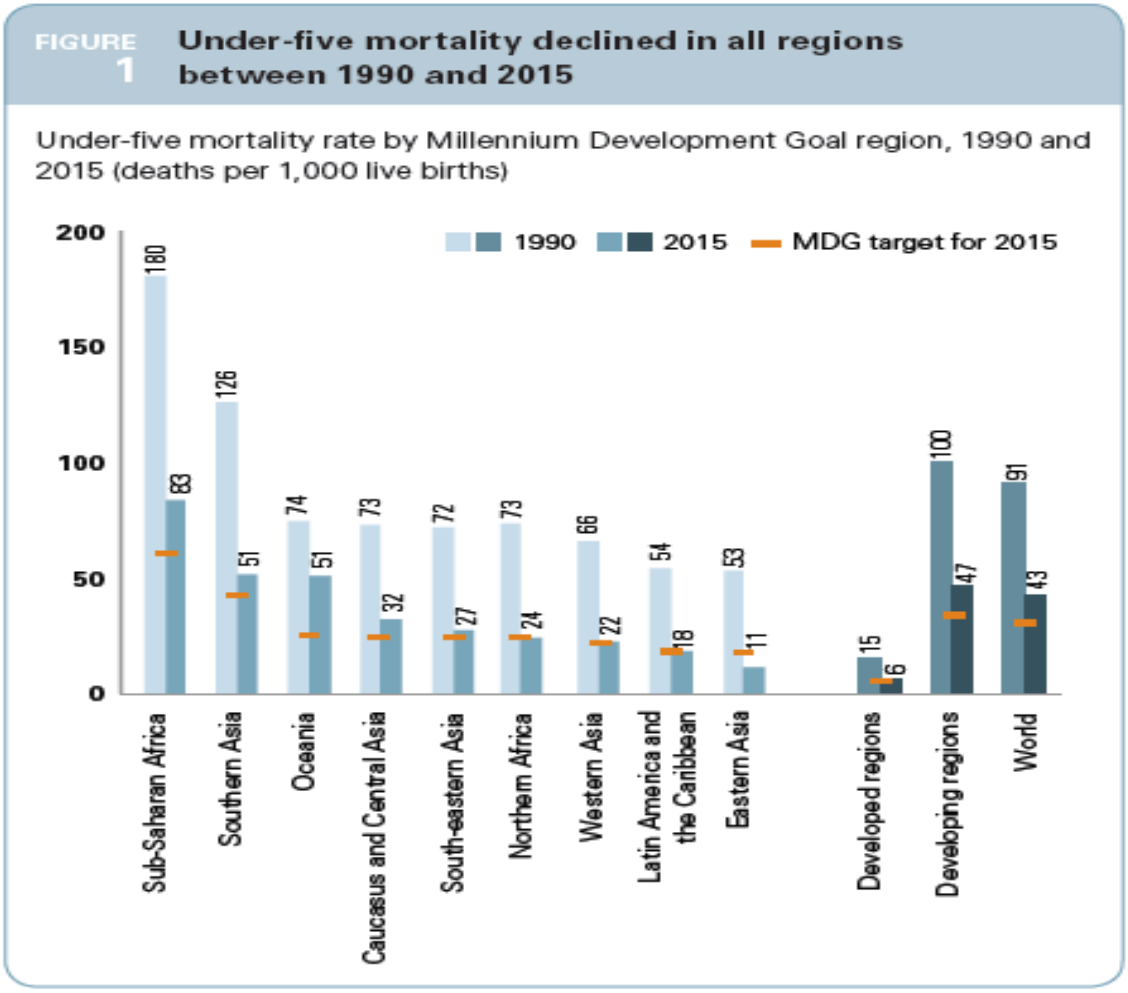
Globally, according to (United Nations 2015a), "since the baseline year of 1990, child mortality ratios declined by 45 per cent worldwide, and most of the reduction has occurred since the year 2000. Further, the global under-five mortality rate (U5MR) has declined by more than half, dropping from 90 to 43 deaths per 1,000 live births between 1990 and 2015".

Indicators for MDG4 are the infant mortality rate (i.e. number of deaths in the first year of life per 1000 live births) and the proportion of one-year-old children immunized against measles. According to (Gaffey et al. 2015:286) "Measles vaccine is typically the last vaccine administered within national routine immunization programs, usually between nine and 12 months of age. More broadly, this indicator may be interpreted as a measure of the coverage and quality of a country's child health care".

Despite this, however, according to (United Nations 2015:33) MDGs progress report, "the global advance in child survival continues to elude many of the world's youngest children and children in the most vulnerable situations. As many as about 16,000 children under five continued to die every day in 2015. Most of them perished from preventable causes, such as pneumonia, diarrhoea and malaria".

Nevertheless, (UNICEF 2015:6) maintain, "the commendable improvements in child survival since 2000 has saved the lives of 48 million children under age five. However, despite substantial gains in improving child survival, progress registered was insufficient to achieve MDG 4 worldwide and as such this target was not met, more so, the 53 percent decline in the under-five mortality rate globally is not equal to the two-thirds reduction that was required to meet the MDG 4 target. At this rate, the world will only be able to reach the MDG 4 target in 2026 – more than 10 years behind schedule". Figure 1 depicts the global trend of under-five mortality rates.

Figure 1: Under -five mortality in all regions between 1990 and 2015



Source: UNICEF 2015: Levels and trends in child mortality

2.1.2 Africa's progress on reduction of child mortality

According to the United Nations (2015:32) MDGs progress report, which indicates that, though sub-Saharan Africa has the world's highest child mortality rate, "the under-five mortality rate fell from 179 deaths per 1,000 live births in 1990 to 86 in 2015". Furthermore, statistics from (UNICEF 2015:4) reveal that, "sub- Saharan Africa has been especially promising, since this is the region with the highest under-five mortality rate in the world, (see fig. 1) with 1 child in 12 dying before his or her fifth birthday. Nonetheless, the region registered acceleration in reducing under-five mortality. 21 sub- Saharan African countries have at least tripled their annual rates of reducing infant mortality from the 1990s or reversed an increasing mortality trend in

2000– 2015 compared with the 1990s: Angola, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Congo, Côte d'Ivoire, Gabon, Kenya, Lesotho, Mauritania, Namibia, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, Swaziland, Zambia and Zimbabwe".

However, (UNICEF 2015:6) further comments that, 'child survival remains an urgent concern. It is unacceptable that about 16,000 children still die every single day – equivalent to 11 deaths occurring every minute. Without any further acceleration to the current pace of reduction in under-five mortality, a projected 69 million children will die before they reach their fifth birthday between now and 2030.'

Generally, most of the countries on the African continent still demonstrate slow progress and the situation is worse for the large rural populations of Africa that have little or no access to and utilization of maternal and newborn health services. For these populations, social protection mechanisms are needed to improve access to high-impact interventions. It is important therefore that, the rates of neonatal mortality (described as death occurring within the first 28 days of life), are kept in check as this is paramount for improving the odds of a child surviving.

UNICEF (2014:12), indicate that, "despite strong advances in fighting childhood diseases, infectious diseases remain highly prevalent, particularly in Sub-Saharan Africa. Pneumonia, diarrhoea and malaria remain leading killers of children under five—killing roughly 2 million in 2013 and accounting for almost a third of global under-five deaths. Pneumonia, diarrhoea and malaria accounted for about 40 percent—of under-five deaths in Sub-Saharan Africa. The major improvements in child survival since 1990 are linked to affordable, evidence-based policy interventions against leading infectious diseases, such as immunization, insecticide-treated mosquito nets, rehydration treatment for diarrhoea, nutritional supplements and therapeutic food. It is highly possible to accelerate the reduction in under-five mortality through expansion of effective preventive and curative interventions that target the main causes of post-neonatal deaths and the most vulnerable new-borns and children".

Finally, (Kirigia et al 2015:2) state that, "In spite of improvements in child health, only eight of the 47 African countries in the WHO Region were on track to achieve MDG4 target 4A on reducing the under-five mortality by two thirds between 1990 and 2015. These are Eritrea, Ethiopia, Liberia, Madagascar, Malawi, Niger, Rwanda and Tanzania".

2.1.3 Global progress on MDG 5: Improving maternal health

MDG 5 comprises two targets for improving maternal health. The first target was to reduce by three quarters the maternal mortality ratio (MMR), between 1990 and 2015, with the MMR defined as the number of maternal deaths per 100,000 live births. The proportion of births attended by skilled health personnel is an additional indicator of progress towards MMR reduction. According to (UN 2015) since 1990, the maternal mortality ratio has been cut nearly in half, and most of the reduction occurred since 2000, with the adoption of the MDGs. The maternal mortality ratio dropped by 45 per cent worldwide between 1990 and 2013, from 380 maternal deaths per 100,000 live births to 210. However, despite this, (Gaffey et al. 2015:287) observe, "although not insignificant, this decline clearly fell far short of the MDG-targeted 75% global reduction in MMR by 2015".

The second target of MDG 5 was the achievement of universal access to reproductive health by 2015. Progress toward this target is measured using four indicators: the contraceptive prevalence rate, the proportion of the demand for family planning that is unmet, the adolescent birth rate, and the proportion of pregnant women receiving antenatal care (ibid). It is mentioned in (United Nations 2015:39) most of the "developing regions have made steady progress in improving maternal health, including the regions with the highest maternal mortality ratios. For example, in Southern Asia, the maternal mortality ratio has declined by 64 per cent between 1990 and 2013, and in sub-Saharan Africa, it fell by 49 per cent. Despite this progress, everyday hundreds of women die during pregnancy or from childbirth-related complications. In 2013, most of these deaths were in the developing regions, where

the maternal mortality ratio is about 14 times higher than in the developed regions. Maternal deaths are concentrated in sub-Saharan Africa and Southern Asia, which together accounted for 86 per cent of such deaths globally in 2013".

To further highlight this, (Gaffey et al. 2015:287) point out that, "as with child mortality, there is wide regional variation in maternal mortality levels. Estimates from the United Nations Maternal Mortality Estimation Inter-Agency Group (MMEIG) mention that, of the estimated 289,000 maternal deaths (MMR of 210) that occurred in 2013. Sixty-two (62%) percent occurred in Sub-Saharan Africa, where the regional MMR of 510 maternal deaths per 100,000 live births is the highest in the world and nearly three times that of the next highest maternal mortality region, Southern Asia (MMR of 190; 26 percent of all 2013 maternal deaths). It is important to note that less than 1 percent % of maternal deaths occur in developed countries".

2.1.4 Africa's progress on maternal mortality

*O*n the continent, there are many pre-existing challenges that made the MDG 5 target (Reducing the maternal mortality ratio by three quarters between 1990 and 2015) unreachable. According to (UNECA 2015:27) "less than two fifths of African countries have a complete civil registration system with good attribution of cause of death, which is necessary for the accurate measurement of maternal mortality. Owing to the existence of only scanty data on MDGs, particularly on maternal health, most countries and development partners rely on estimates to have an idea of the maternal health situation in Africa". Furthermore, according to statistical data from the United Nations Statistics Division, (as cited in UNECA 2015:37) "the lack of data is one of the major hurdles in tackling the implementation of the MDGs, particularly MDG 5. Without updated data, countries cannot adequately determine whether certain interventions are working, including how to distribute the meagre resources on improving maternal health".

Further still according to (UNECA 2015:27) "Africa is the region with the highest maternal mortality ratio (MMR) in the world. According to United Nations Statistics

Division (UNSD) data, by 2013, Africa had 289 maternal deaths per 100,000 live births, compared to the world average of 210 maternal deaths per 100,000 live births".

Despite this gloomy picture, United Nations as cited in (Gaffey et al. 2015:287) mentions that, "nevertheless, at least four countries in Sub-Saharan Africa (Cabo Verde, Equatorial Guinea, Eritrea, and Rwanda) were on track to meet the 75% maternal mortality reduction target according to estimates from the UN Maternal Mortality Estimation Inter-Agency Group (MMEIG). A further three countries in the region (Angola, Ethiopia, and Mozambique) have each achieved at least a 64% MMR reduction since 1990".

For the second target of MDG 5-achieving universal access to reproductive health by 2015, its indicators are: the contraceptive prevalence rate, the proportion unmet need for family planning, the adolescent birth rate, and the proportion of pregnant women receiving antenatal care. According to (United Nations 2015:41) "use of contraception contributes to reducing the number of unintended pregnancies, unsafe abortions and maternal deaths. Worldwide the proportion of women aged 15 to 49, married or in a union, who were using any method of contraception has increased from 55 percent in 1990 to 64 per cent in 2015. In sub-Saharan Africa, this proportion more than doubled between 1990 and 2015, from 13 per cent to 28 per cent".

A minimum of four antenatal care visits during pregnancy are recommended by the World Health Organisation (WHO) to ensure the well-being of mothers and new-borns. (Gaffey et al 2015:288) note, in developing country regions, the proportion of pregnant women reporting at least one ANC visit increased from 65 percent in 1990 to 83 percent in 2012, with the proportion reporting at least four ANC visits increasing from 37 percent to 52 percent over the same period. As with other indicators of MDG 5 progress, regional variation in ANC coverage levels and trends are considerable, with little changeover time in Sub-Saharan Africa (from 48 percent of pregnant women reporting at least four visits in 1990 to 50 percent in 2012). However, it should be noted according to (UNECA 2015) 80 percent of the women in Africa attended antenatal care in a health facility at least once.

Mentioned in the (United Nations 2015:38) report, "globally, the proportion of deliveries attended by skilled health personnel increased from 59 percent around 1990 to 71 percent around 2014. Yet this leaves more than one in four babies and their mothers without access to crucial medical care during childbirth. Africa is still one of the regions with the lowest proportion of births attended by skilled health personnel (52 percent) in 2014.

Having highlighted the progress made on the maternal and child health MDGs, the discussion will move to discussing what the meaning of governance, as well as its interplay with the MDGs and thereafter, conclude by conceptualising the two governance indicators-government effectiveness and control of corruption, which will guide the country comparisons in subsequent chapters.

2.2 What is governance?

The definition of governance varies significantly mostly depending on the context of use. However, governance is defined by the Oxford English Dictionary as 'the manner in which something is governed or regulated; it is a method of management, and a system of regulations. According to (Fukuyama 2013:350), "governance is a government's ability to make and enforce rules, and to deliver services, regardless of whether that government is democratic or not". Accordingly, the (World Bank 1992:1) described it as "the manner in which power is exercised in the management of a county's economic and social resources for development". Likewise, (Weiss 2000:801) posits, "the complex reality of governance, encompasses all structures and processes for determining the use of available resources for the public good within a country".

Three distinct aspects of governance are elaborated by the (World Bank 1994:14) as "(i) the form of political regime; (ii) the process by which authority is exercised in the management of a country's economic and social resources for development; and (iii) the capacity of governments to design, formulate, and implement policies and discharge functions". Perhaps the most relevant definition for this paper would be one

that only focuses on the quality of governance. This is from (Hulme, Savoia & Sen 2015:86) who mention that, "governance is the effectiveness of rules, policies and the functioning of public bodies that affect the lives of the members of a community, specifically focused on the organisation of the state and how effectively it executes policies and programmes".

2.3 The importance of governance to the MDGs

A number of scholars' stress that, good governance is critical to development, and therefore, one cannot mention development without mention of governance. According to (Hulme, Savoia & Sen 2015:92) and (Joshi 2011:342) "good governance has instrumental value, and that improvements in governance quality has tangible effects on both material and nonmaterial dimensions of economic development. They further go on to highlight the importance of collective state capacity, sound policy and governance as fundamental ingredient for development endeavours to succeed".

State capacity in this instance, is understood to be according to (Hildebrand and Grindle 1997:34) as cited by (Joshi 2011:347) as the "ability to perform appropriate tasks effectively, efficiently, and sustainably". It invariable means that, "state capacity is essential to meeting the MDGs because providing public goods and services like education, healthcare, water, and sanitation to all people ultimately requires a progressive transfer of resources to and increasing services to low-income, subsistence and rural, communities that would not easily access these services. Weak state capacity leads to a waste of resources and the inability to optimally deliver public goods and services".

This is further emphasised by (Joshi 2011: 349-50) who highlights that, "state capacity has multiple components namely: resource accumulation, personnel quality and administrative efficiency.

> *With respect to resource accumulation, development policy authors argue that fiscal extractive capacity is the single most important feature of state capacity, a state needs*

to have enough financial resources in order to be effective, and the most important source of revenue for states generally comes from taxation. Taxation in particular enhances state capacity because taxes need not be repaid with interest like loans and other debt-based forms of revenue. Taxation is essential in determining state capacity because it enables the state to fund public goods and services. General government effectiveness benefit from strong fiscal extractive capacity and tax collection capacity is directly related to advancing MDGs like lowering infant mortality. The mobilization of public revenue gives the state more resources to develop and sustain an effective public administration and provides the money needed to invest in expanding public goods and services to the poor and to rural areas.

Secondly, states need qualified and trustworthy people to implement policies, to enforce laws, and to spend public money efficiently. The same way a private business needs physical and human capital accumulation to develop, so does a state. Meaning therefore that, in addition to raising sufficient public revenue, the state must attract, train, and retain a sufficient number of talented and honest people to run its programs effectively. Therefore, a meritocratic civil service based on an incentive structure that rewards good performance and punishes poor performance is also essential to MDG governance. Talented and honest people are essential for good public administration. Hence, the second component to look for in MDG governance is the quality of the civil service.

Thirdly, the government must allocate its financial and human resources into ensuring that all citizens receive basic services in health and education effectively and efficiently, which are essentially MDG priority areas. Governments demonstrate their responsibility by financing, providing, or and regulating services that contribute to health and education outcomes and thus effective delivery of public services can make a crucial difference when it comes to progress on MDGs".

The quality of governance is essential to long-term development; (Grindle 2004:534, Hulme et al 2015:1, Miyazawa and Zusman 2015:2) argue that, "less corruption, more democratic systems, stronger rule of law, more effective policies and competent public agencies are actually positively correlated with development outcomes". "Whether

resources are efficiently and effectively used to deliver services, as well as the extent to which a government is responsive and allows for participatory policy decision-making are all deemed to be conditions for good governance". "In short, governance does really matter because better quality governments usually have positive effect on development outcomes because of efficiency in the delivery of public services. Thus, the three critical components of governance (resource accumulation, personnel quality and administrative efficiency) are pivotal for the MDGs".

In conclusion, (Kaufmann, 2010:3) in his research on "why governance matters and critical success factors for MDGs", highlights that based on empirical research, there is a strong positive causal relationship between improved governance and better development outcomes. Therefore, "governance does matter for the MDGs, because, when governance improves, issues like infant mortality on average declines by two-thirds and incomes rise three-fold in the long run as a consequence. Furthermore, a conducive policy framework and enabling environment as well as capable institutions are paramount in achieving any development goals. Thus, poor governance can significantly constrain progress on MDGs".
Having given a detailed elaboration on the interplay and importance of governance to the MDGs, the review will conclude by conceptualising government effectiveness and control of corruption.

2.3.1 Government effectiveness

Effective government is defined as "the capacity of government to formulate and implement sound policies, the credibility of the government's commitment to policies, the quality of the civil service, the degree of its independence from political pressures and by the social and economic interactions between the people and the state" (Kaufmann, Kray and Mastruzzi 2010: Rainey and Steinbauer, 1999). Further to this, according to the World Bank[3], government effectiveness is captured by the following

[3] http://info.worldbank.org/governance/wgi/pdf/ge.pdf

indicative measures:

- Quality of administration & civil service personnel
- Quality of transportation infrastructure, public schools
- Tax administration capacity & budget management
- Quality of public health system
- Ease of obtaining basic services (electricity, passport, etc.)
- Policy consistency and forward planning

2.3.2 Control of corruption

The definition of corruption is diverse depending on the context and usage. According to the (The World Bank[4], Transparency International 2016[5] and Dzhumasashev 2014:) corruption is defined as "weaknesses in government institutions, which create opportunities for exploitation and the abuse of power for private gains. In addition, corruption creates significant inefficiencies in the public sector by discouraging poor people from accessing health and education services, thus negatively impacting health and education outcomes, such as infant mortality and literacy levels".

"The presence of corruption works to erode the social contract between citizens and the state. Economic growth and activity are similarly harmed by corruption – with corruption operating as a strong disincentive to foreign investment. Countries capable of controlling corruption are able to use their human and financial resources more efficiently, attract more foreign and domestic investment, and grow more rapidly.

Furthermore, the bank explains control of corruption as the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as capture of the state by elites and private interests".

[4] Ibid.
[5] http://www.transparency.org/what-is-corruption#define

According to the World Bank[6] control of corruption is captured by the following indicative measures:

- Absence of bribes for permits, utilities, contracts, courts, taxes
- Absence of cronyism, nepotism, vested interests, non- transparency
- Absence of diverted public funds

In conclusion, an improvement of sector specific service delivery, supported by the adoption of sound policy choices that are based on transparency and accountability are imperative building blocks of good governance which are essential for the achievement of the MDGs.

Having highlighted the progress made on the maternal and child health MDGs, the chapter discussed what governance means, its importance, as well as the interplay between governance and the MDGs and thereafter, concluded by conceptualising the two governance indicators-government effectiveness and control of corruption which will guide the country comparisons in the subsequent chapters.

[6] http://info.worldbank.org/governance/wgi/pdf/cc.pdf

CHAPTER 3: Broad Trends-Maternal and Child Health Outcomes and Socio-Economic Policy Contexts

This section provides a comparative presentation and discussion of the broad trends in the outcomes of Maternal and Child health MDGs in Burundi, Rwanda and Uganda. It details the broad socio-economic policy contexts in the three countries and discusses the economic and political factors affecting MDG trends using comparative descriptive statistics. Lastly, it specifically highlights the extent to which Rwanda outperformed Uganda and Burundi towards meeting the maternal and child health MDGs. In setting the MDG targets, the baseline year was 1990 with an endpoint of 2015.

3.1 MDG 4-Reduce Child Mortality

A cross-country comparison of the trends in under-Five mortality rates is made in table 2 below, which highlights the baseline, MDG targets and actual country performance as well as percentage decrease over the 1990-2015 between the three countries.

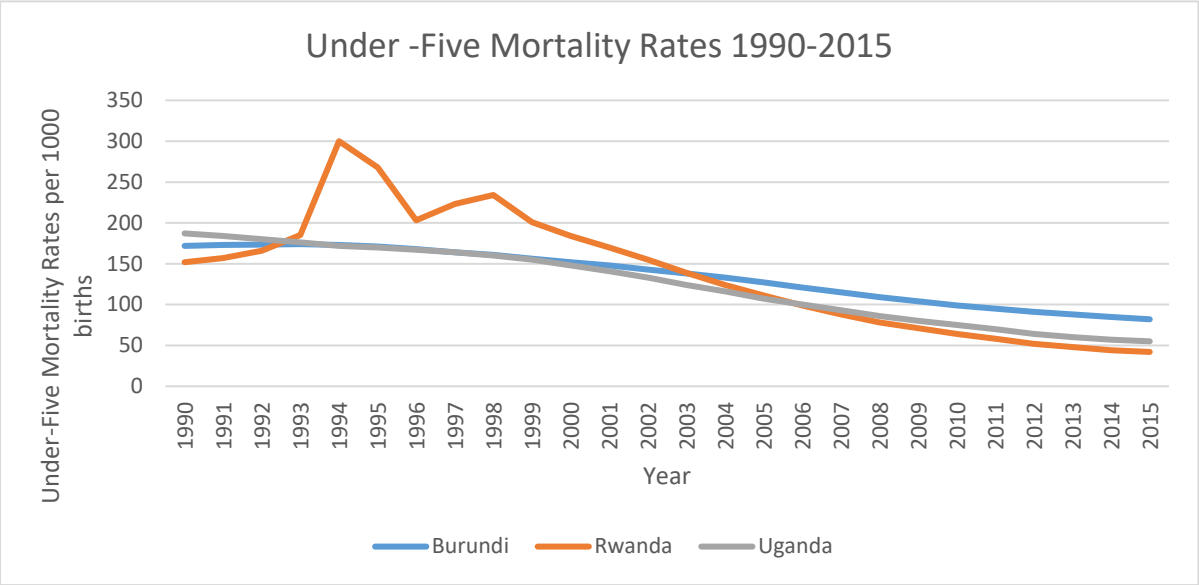
Table 2: Under-Five Mortality Rates –Country Comparisons

Country	Baseline-1990	MDG Target 2015	Actual 2015	% Decrease
Burundi	172	57	82	52%
Uganda	187	60	55	70%
Rwanda	152	51	42	72%

Source: World Bank Statistics 2016

Figure 2 below, indicates the annual trends in under five mortality rates among the three countries from 1990-2015. It is useful to note how the under-five mortality rate for Rwanda peaked during the 1994 genocide and civil war, where the rate was at an all-time high of 300 deaths per 1000 live births. During this period, the provision and access to basic primary health care facilities virtually impossible due to prevailing circumstances.

Figure 2: Under Five Mortality



Source: World Bank Statistics 2016

Based on table 2 and Figure 2. Rwanda made progress towards the achievement of MDG-4. World Bank data indicates that, in the period 1990-2015, the under-five mortality rates, reduced by 72 percent, which is the highest rate of reduction among the three countries and compared to Uganda, which registered a 70% decrease, whereas Burundi was only able to achieve a decrease of 52 percent. Only Rwanda and Uganda met the under- five mortality target in 2015.

Infant Mortality

A cross-country comparison of the trends in infant mortality rates is made in table 3 below, which highlights the baseline, MDG targets and actual country performance as well as percentage decrease over the 1990-2015 between the three countries.

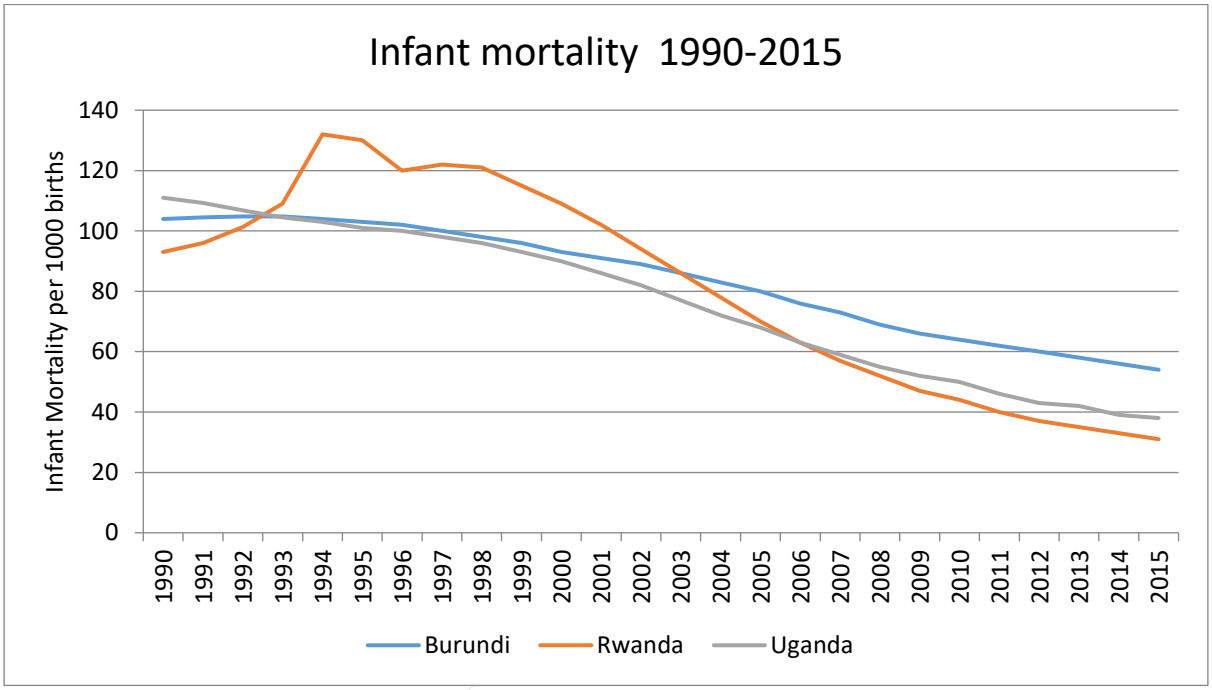
Table 3: Infant Mortality Country Comparisons

Country	Baseline-1990	Actual-2015	MDG Target-2015	%Decrease
Burundi	103	54	34	50%
Uganda	107	38	36	64%
Rwanda	93	31	32	60%

Source: World Bank Statistics 2016

Figure 3. Below, shows the annual trends in infant mortality rates among the three countries from 1990-2015. It is useful to note how the rates for Rwanda peaked during the 1994 genocide and civil war, where it was at an all-time high of 132 deaths per 1000 live births. Owing to the fact that, during this period, the provision and access to basic primary health care facilities virtually impossible due to the prevailing circumstances.

Figure 3: Infant mortality country comparisons



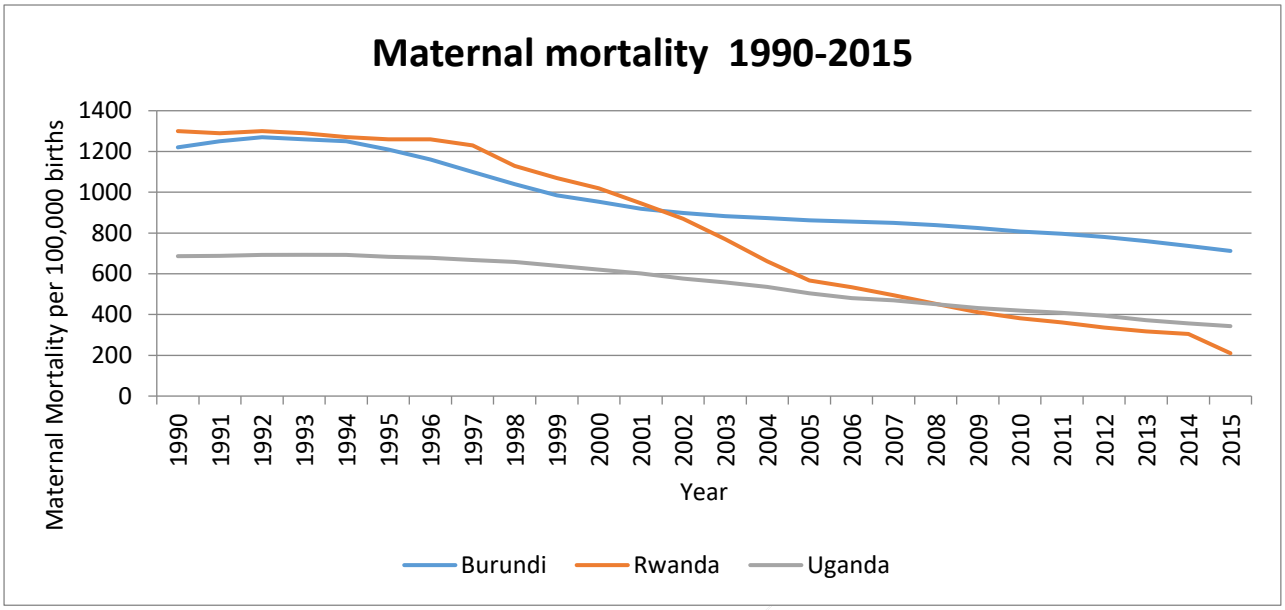
Source: World Bank Statistics 2016

Based on table 3 and Figure 3 in the period 1990-2015, for Rwanda the infant mortality rates, reduced from 93 to 31 deaths per 1,000 live births corresponding to a 60 % decrease while compared to Uganda, which registered a 64% decrease, whereas Burundi was able to achieve a 50 % decrease. It is observed here that, only Rwanda and Uganda were able to meet the targets for infant mortality.

3.2 MDG 5-Maternal Mortality (MMR)

Target for MDG 5 was to reduce maternal mortality rates by three quarters by the year 2015.

Figure 4: Maternal Mortality rates



Source: World Bank Statistics 2016

Table 4: Maternal Mortality-Regional Comparisons

Country	Baseline-1990	Actual- 2015	MDG Target 2015	% decrease
Burundi	1220	712	305	42%
Uganda	687	343	171	50%
Rwanda	1300	290	325	78%

Source: World Bank Statistics 2016

Based on table 4 and Fig 4 above, Rwanda made immense progress towards the achievement of MDG-5. World Bank data indicates that, in the period 1990-2015, the maternal mortality ratio reduced by 78%, which is the highest rate of reduction among the three countries. Uganda and Burundi registered a 50% and 42 % decrease, respectively.

3.4 Socio Economic Policy Contexts

The section details broad socio-economic policy contexts in the three countries and discusses the economic and political factors affecting MDG trends using comparative descriptive statistics.

Table 5. below highlights key demographic, health, socio economic and governance indicators for the three countries for the years 2000 which is the baseline/starting point of the MDGs and their end point of 2015.

Table 5: Key Country Indicators Burundi, Rwanda and Uganda

	Indicator	**2000**			**2015**		
		Rwanda	Uganda	Burundi	Rwanda	Uganda	Burundi
Population	Population (Millions)	8	23.7	6.7	11.6	39	11
	Population growth (%)	5.6	3.1	2.1	2.3	3.3	3.3
Health	Health Expenditure % of GDP	4.2	6.8	5	8	7	8
	Life expectancy (years)	48.2	46.4	51.5	65	58	57
	Total Fertility rates/Woman	5.6	6.8	7	4	5.7	5.9
Economic Development	GDP Growth annual rate %	8.3	3.1	-0.9	7	5	-2.5
	GDP per capita ($)	216	261	129	698	676	276
Good Governance	Control of Corruption (Percentile % rank)	31	21	10	75	12	10
	Government Effectiveness (Percentile % rank)	28	41	5	51	37	12

Source: http://databank.worldbank.org/data/home.aspx

Note: Higher percentile scores in good governance indicate a stronger government effectiveness and better control of corruption and vice versa for lower percentile scores.

3.5 Rwanda

Rwanda is a small landlocked country in central Africa, it is still recovering from the impact of the 1994 Genocide against the Tutsi, which claimed up to 1 million lives and left about 2 million homeless and left infrastructures destroyed. Following this period, the government has implemented important economic and structural reforms that have led to steady economic growth rates over the last two decades, averaging 7% annually over the last five years and GDP per capita increasing from $216 to $698 between 2000 and 2015 (see Table 5, Page 30). Rwanda ranks 159th out of 186 countries in the Human Development Index.

Rwanda has been politically stable since 1994. "With a continued emphasis on good governance, accountability and citizen participation", According to (Abbott, Sapsford and Rwirahira 2015:102), "Home grown policy initiatives have been central in contributing to significant improvement in access to services and in human development indicators. Strong economic growth, rapid poverty reduction and reduced inequality have been accompanied by substantial improvements in living standards, increased life expectancy evidenced by a two-thirds drop in child mortality and the attainment of near-universal primary school enrolment. By the end of 2015, Rwanda was among a few African countries that had met the Millennium Development Goals-MDGs".[7] The poverty rate dropped from 44% in 2011 to 39% in 2014 while inequality measured by the Gini coefficient reduced from 0.49 in 2011 to 0.45 in 2014 (World Bank 2015)[8].

3.6 Uganda

According to the World Bank, "starting in the late 1980s, the Uganda government implemented a broad range of economic structural reforms. The resultant macroeconomic stability, post-conflict rebound, and investment response generated a sustained period of high growth during 1987-2010. Real gross domestic product (GDP) growth averaged 7% per year in the 1990s and the 2000s, placing Uganda among the

[7] http://www.worldbank.org/en/country/rwanda/overview#1
[8] Ibid.

15 fastest growing economies in the World. However, over the past decade from (2000-2010), the country witnessed more economic volatility and GDP growth rates slowed to an average of about 5%. With the population increasing at a rate of at least 3% per annum through these decades see table 5, per capita income growth decelerated from a rate of 3.6% recorded in the decades of 1990s and 2002, to about 2%. However, due to low oil prices, the effects of a volatile global economy on demand for Uganda's exports and timing of key infrastructure projects in the country's oil sector, could offset any benefits of improved terms of trade. Under these circumstances, the Ugandan economy is forecast to grow at a rate of approximately 5.9% in FY16/17. Uganda ranks 163rd out of 186 countries in the Human Development Index"[9].

"Despite over three decades of political stability, the country still faces numerous socio-economic challenges including high rates of corruption, underdeveloped democratic institutions, and in some instances, human rights related abuses[10]. On the other hand, Uganda was able to meet and surpass the Millennium Development Goals on income poverty and was able to halve poverty by 2015 and made significant progress in reducing the population that suffers from hunger, promoting gender equality and empowering women. With almost half of its people under the age of 15 years (one of the world's youngest populations) and a fertility rate estimated at 5.7 children per woman (2015), Uganda has a very high dependency ratio and population growth that generates 700,000 new labor market entrants every year. It is important to note that the government continues to support about 6.7 million Ugandans who are still in poverty majority of whom are in the northern region, and the further 14.7 million who remain vulnerable, thus putting a strain on government resources"[11].

"Uganda is now the largest refugee hosting country in Sub-Saharan Africa, with more than 800,000 South Sudanese refugees, according to a March 2017 update from the UN Refugee Agency. On average, the country receives 2,218 refugees daily, and a further 500,000 could arrive during 2017"[12].

[9] http://www.worldbank.org/en/country/uganda/overview
[10] Ibid.
[11] Ibid.
[12] http://www.worldbank.org/en/country/uganda/overview

3.7 Burundi

Burundi is a "small landlocked country in central Africa. Close to 90% of the population is engaged in subsistence agriculture. Since 2000, Burundi enjoyed relative stability and economic recovery. President Nkurunziza's re-election in 2015 triggered a political crisis that claimed over 500 lives and displaced 300,000 people. With increasing insecurity in the country and widespread human rights violations, the Burundian population have reduced trust in the government and its institutions. Burundi's Human Development Index HDI is at 184 out of 189 countries, which put it in the low human development category" [13]. Between 1990 and 2014, Burundi's life expectancy at birth increased by 11.8 years, Burundi's GDP per capita increased from $208 to $275 between 1990 and 2014"[14].

Despite some "moderate economic growth of between 4 and 5% annually over the period 2005 and 2014, boosted by the recovery in the coffee sector and momentum in the construction and service sectors. Overall, Burundi's economy is handicapped by two main weaknesses: limited fiscal space and narrow export base making both fiscal and external positions very vulnerable. However, poverty remains widespread and affects a major part of Burundi's population. Almost one in two households (around 4.6 million people) are food insecure and over half of the children are stunted. Access to water and sanitation is very low and less than 5 percent of the total population has access to electricity"[15].

3.3 Discussion

Having elaborated trends for child, infant and maternal mortality across the three countries, beginning from the MDGs baseline point of 1990 up to their end point in 2015. It is particularly useful to note that in the period 1990-1994, during which the civil war and Genocide were taking place in Rwanda, was a period of conflict in which over a million lives were lost, and an equal number displaced, with a health system

[13] http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/BDI.pdf
[14] https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=BI&view=chart
[15] http://www.worldbank.org/en/country/burundi/overview

that was nearly destroyed. All MDG indicators in Rwanda were reversed dramatically during the 1994 genocide and fell way below 1990 baseline levels[16].

Consequently, Rwanda experienced a sharp increase of 48% and 42% in under-five mortality and infant mortality rates respectively. This in essence was due to increased deaths as a result of disease, lack of access to hospitals, immunizations, essential drugs and basic amenities like water and electricity. There was widespread malnutrition due to food scarcity compounded by fact that women and children were directly impacted by violence during the conflict.

Despite the prevailing circumstances in 1994, Rwanda was nonetheless able to register more superior performance vis a vis Uganda and Burundi and was the only country out of the three that met the maternal and child health MDGs by the 2015 deadline as indicated in tables 2, 3 and 4.

Rwanda's performance was particularly due to the effectiveness of its governance models and solutions, specifically with a focus in the health sector, as will be discussed and elaborated in the next chapter.

[16] http://www.unrwanda.org/undp/mdg.htm

CHAPTER 4: Discussion of Health Systems Governance in Rwanda and Uganda

The discussion in this chapter centres on the background given in the two preceding chapters. It introduces and explains how Rwanda's superior performance in reducing maternal and child mortality is a consequence of the better approaches to policy implementation compared to Uganda. This is based on the extent to which specific functional properties of governance (government effectiveness and control of corruption) helped Rwanda make progress on MDG4 and 5. The section further highlights how the Millennium development goals-MDG focus areas were adapted to the governance and management of Rwanda's health care system. In addition, it concludes by contrasting Rwanda and Uganda approaches to improving health care outcomes – and the quality of their respective implementation efforts.

It is important to note that, Burundi has been excluded from further analysis in this section, first due to its relatively poor performance in reducing maternal and child mortality vis a vis Rwanda and Burundi. The preceding chapter, which discusses country performance and trends, highlights Burundi's socio-economic status. Second, because of the current political impasse, which has affected all its socio-economic sectors, it is thus no longer considered viable for comparative analysis in the next section.

Overview of Governance contexts in Rwanda and Uganda

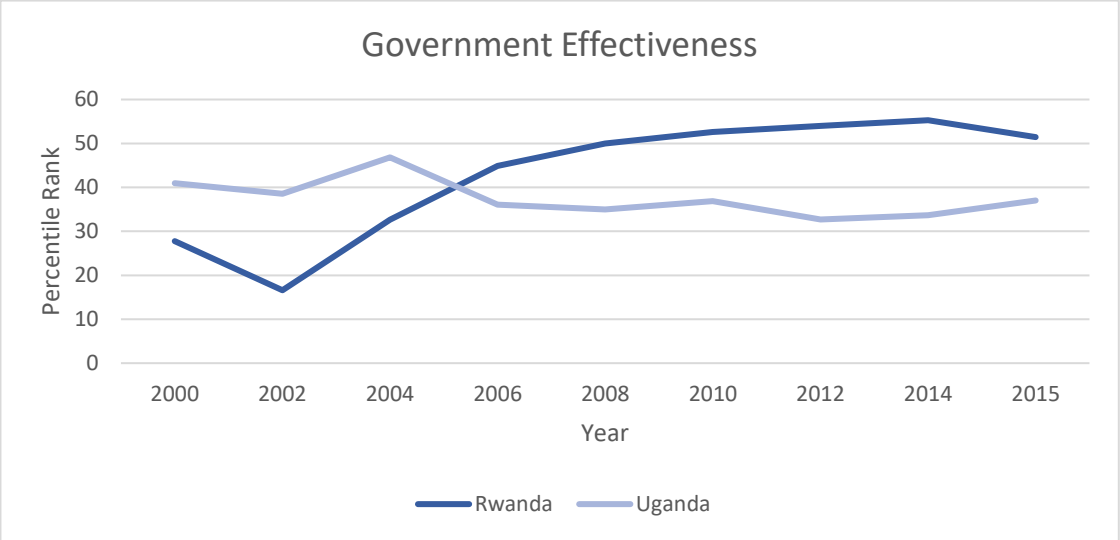
Enhancing the quality of governance is a powerful instrument to improve social indicators, economic growth and development, as the effectiveness of government policies hinges on the competence of public bodies. The next section briefly recaps the indicative measures of control of corruption and government effectiveness, which have both previously been elaborated in detail in Chapter 2. Thereafter, a detailed overview of the health sector governance contexts of Rwanda and Uganda is given.

4.1 Government Effectiveness

According to the World Bank[17], "government effectiveness captures perceptions of the following indicative measures of quality of administration & civil service personnel and the extent of its independence from external political pressures; the quality of public infrastructure and public schools; the tax administration capacity & budget management; quality of public health systems; ease of obtaining basic services e.g. water, electricity, passports and lastly the quality of policy formulation, consistency, forward planning and implementation".

It is important to comment that, in any country where significant progress in governance is made, it usually follows a clear understanding by the leadership of the country that good governance and the control of corruption are critical to sustainable growth and development. It is furthermore important to recognise that 'leadership' is not limited to a country's political leaders, but includes leaders in all fields: civil society, professionals and business (private sector), among others. Figure 5. Below, highlights the trends in government effectiveness in Uganda and Rwanda.

Figure 5. Trends in Government Effectiveness Rwanda & Uganda 2000-2015



Source: http://data.worldbank.org/data-catalog/worldwide-governance-indicators

[17] http://info.worldbank.org/governance/wgi/pdf/ge.pdf

On government effectiveness, Rwanda scores consistently higher in comparison to Uganda starting specifically from 2005 to 2015. As at 2015 Rwanda scored 51.4% compared to Uganda with 37.02%.

Miyazawa and Zusman (2015:6, 7) emphasise that, "there has been little debate that effective governments are better for development. Governments that are more effective like that of Rwanda, usually offer stronger protections on property rights that encourage greater private investment". The same governments give higher quality public services, attract more investment, furthermore, they put foreign aid resources to better use. "In short, better quality governments usually have positive multiplier effect on development outcomes largely attributable to efficiency in the delivery of public services". The Government of Rwanda rolled out the decentralisation programme in 2000. This was implemented to ensure the involvement of the grassroots in the decision-making process from the village level up to the district level. The government policy is driven and implemented at the local government level, all thirty districts get annual budgets to execute and make accountability through the *imihigo,* which is a traditional Rwandan practice used for setting targets/goals and working towards their achievement within a given timeframe. *Imihigo* is used for evaluating performance results and increasing accountability at districts levels[18].

Regarding tax administration capacity as an indicator of government effectiveness, the Rwanda Revenue Authority (RRA) was established in 1997. The organisation is mandated by the government to administer the collection of taxes and customs and excise duties. From its inception, according to Land (2004:24), "the organisational growth of the RRA was a purely locally driven process, underwritten and sustained by strong ownership, and driven by decisive leadership. These have been present both at a political level, through the active personal support of the President, who has gone on to play a major part in the campaign to change public attitudes towards paying taxes and corruption as well as through the broader government and the organisation's senior management. The RRA has a clear and unequivocal mandate

[18] www.rwandapedia.rw

and a strategic role to play within government's wider strategy of national reconstruction, poverty reduction and good governance. As the centrepiece of the country's domestic revenue generation effort, it plays a key role in reducing Rwanda's dependency on aid and to shift towards a country-driven transformation process. Accordingly, from the start the RRA enjoyed a high degree of legitimacy and backing from official circles and consequently, there were equally high expectations placed on the nascent organisation to perform".

Given this background, "it is critical to highlight that, over the twenty-year period since its establishment, the RRA has been instrumental in seeing Tax to GDP ratios increasing from 9% in 1998 to 13.1% in 2011 and to 16.1% in 2016, solidifying the RRA's role as the lead agency charged with increasing Rwanda's domestic revenue generation. This is pivotal to the fulfilment of the country's poverty reduction plan, thus, weaning itself off development aid dependency and becoming self-sufficient"[19].

Furthermore, the extent of policy consistency and forward planning as an indicator of government effectiveness is illustrated in Rwanda by its Vision 2020 strategy. This is a long-term plan developed in 2000 and maps out the country's overall objectives and goals to graduate to middle income status by the year 2020. This was supported and implemented through the medium-term economic development and poverty reduction strategies (EDPRS 1 and 2 which are being implemented from 2000-2018).
During this period, economic growth led to the reduction of poverty from 57 percent to 39 percent between 2006 and 2014, with at least 1 million Rwandans out of poverty in the same period[20].
Individual Ministries/sectors have five-year strategic plans, which are aligned to EDPRS, which in turn is aligned to Vision 2020. This is further broken down into annual action plans with specific targets that are in the *imihigo*. Vision 2050 and EDPRS 3 are currently being drafted and elaborated.

Development planning in Rwanda is a participatory process, which involves consultations with all segments of the population from the grassroots level up to

[19] Rwanda Revenue Authority Annual Report 2016.s
[20] http://statistics.gov.rw/publication/main-indicators-report-results-eicv-4

central government and development partners. The MDGs and SDGs are both aligned to Rwanda's strategic plans; this is seen as a means of driving ownership and ensuring implementation through the decentralised policy implementation process of performance contracting-*imihigo).*

According to (Rwiyereka 2014:688) the "government sees the *imihigo* as an invaluable tool in the planning, accountability, and monitoring and evaluation processes. It is a results-based framework with three pillars: economic development, social development, governance and justice. It ensures full participation and ownership of citizens".

The decentralization policies of *imihigo* also enable the central government to demand accountability from local government officials such as mayors and district executive secretaries, and in turn, citizens can demand accountability from the district development councils charged with public service delivery. Ministries have annual action plans, which are called imihigo, which are in turn, aligned to national development strategies. Every year, Local Governments and Ministries undertake to implement their specific *imihigo* and report quarterly to the Ministry of Finance and Economic Planning, which oversees the implementation of the different sector specific policies, this is in line with the disbursement of the requisite budget for implementation. It is important to highlight that before any *imihigo* is implemented; they are first assessed and evaluated based on how they connect to the national priorities as well, as how feasible and achievable they are within the given periods.

In order to ensure impartiality, the *imihigo* evaluation process is conducted on an annual basis by a team from the Institute of Policy Research and Analysis-IPAR, an independent think tank contracted and supervised by the Office of the Prime Minister, which is charged with coordinating the overall implementation of government policy. These teams visit all ministries to cross check whether the results reported in ministerial action plans, performance contracts (*imihigo*) have been achieved, and in all cases, supporting documentation is required for substantiation.

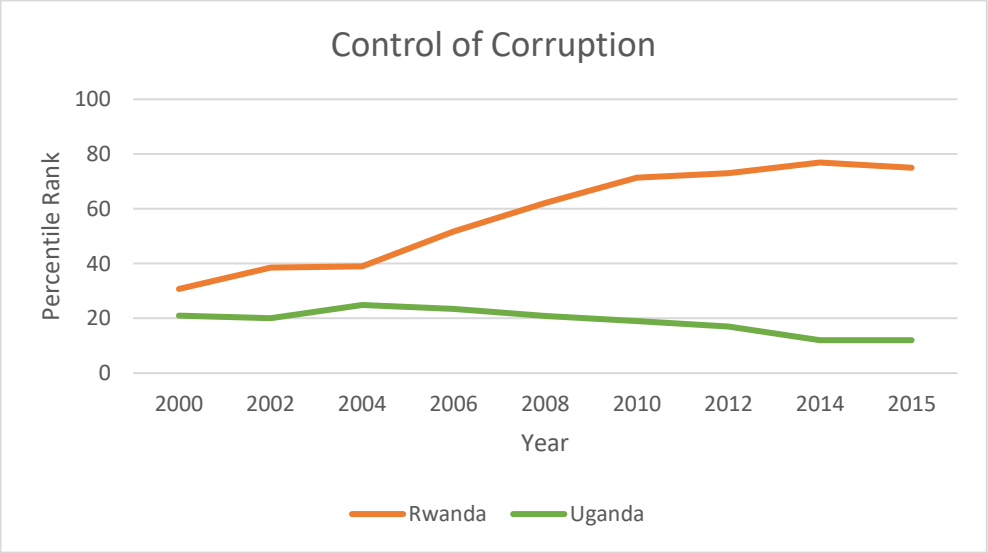
4.2 Control of Corruption

According to Baldacci et al (2005), "changes in a country's governance index from lower- to higher-than-average (implying reduced corruption) is associated with an immediate reduction in the child mortality rate, an increase in the composite enrollment rate, and a rise in per capita GDP growth".

Control of Corruption according to (Miyazawa and Zusman 2015:5) "is measured by perceptions of the extent to which public power is exercised for private gain, which includes both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests". According to the World Bank[21] control of corruption is captured by indicative measures such as the absence of bribes for permits, utilities, contracts, courts, taxes, absence of cronyism, nepotism, vested interests, and non-diversion of public funds.

Figure 6 below highlights the trends in control of corruption over the period 2000-2015 in Rwanda and Uganda.

Figure 6: Control of Corruption trends in Rwanda & Uganda 2000-2015



Source: http://data.worldbank.org/data-catalog/worldwide-governance-indicators

Figure 6 above shows that Rwanda scores for control of corruption percentile are higher at 75% points in comparison to Uganda at 12% whose percentile score steadily worsened over the fifteen-year period. Furthermore, according to the 2016

[21] http://info.worldbank.org/governance/wgi/pdf/cc.pdf

Transparency International corruption perception index, an annual report which scores countries on how corrupt their public sectors are perceived. (Transparency International 2016:2,10) "Rwanda was ranked third least corrupt country in Africa with a 54 percent score alongside Mauritius, whilst Cape Verde came second place and Botswana in first place. The same report ranks Rwanda as 50th least corrupt country in the World while Uganda, scored 25 percent and was ranked 151st globally".

According to the Mo Ibrahim Index of African governance indicates (Mo Ibrahim 2016:18), "Rwanda is the only country to feature both among the ten highest scoring and the ten most improved countries over the past ten years. In 2016 Rwanda scores 62.3/100 and over the 2006-2015 period registered an upward progression of +8.4 points, while Uganda scored 56.2/100 and an upward progression of +3.4 points".

In the Rwandan context, there are several initiatives to combat corruption in support of the Government's stance of zero tolerance against corruption. According to (Barnes 2011:3) "In 2003, the Office of the Ombudsman in Rwanda was created, and it has the unique function of combining the traditional ombudsman roles with those of an anti-corruption agency. Its main function is to reinforce good governance in public and private institutions by acting as a link between the public and these institutions, preventing injustice and corruption, receiving complaints from citizens, and administering the income and asset disclosure system of the government".

Employees of the public service are expected declare all property as required by the law before the 30th June each year. The asset declaration process has evolved from being a somewhat tedious paper-based declaration process to a more simplified digital and online-based e- government system. On the 1st of June this year I received an online link in my email with instructions on how to create an account and proceed to declare my assets, once the declaration process was complete I received a notification email.[22] Over time, the incidence of corruption in Rwanda has steadily

[22] https://ombudsman.gov.rw/assetDeclaration/index.php/Declr/reg/?

decreased, and the government's zero tolerance policy on corruption is gaining ground.

Corruption in public service and embezzlement of public funds is met with the full force of the law, case in point, in 2009; three staff of the Presidency (Director General, Director of Finance and Administration as well as the Logistics officer) were arrested over alleged corruption.

In the 2009, the former Minister of State, in charge of Primary and Secondary Education was arrested over embezzlement of state resources and under-declaration of his assets with the Office of the Ombudsman[23].

In 2012, the Permanent Secretary in the Ministry of Local Government was arrested over alleged corruption charges for having solicited a bribe of 2million Rwanda Francs (about USD 2350) in connection with the award of a tender worth 50million Rwandan Francs (USD58,800)[24].

A similar high profile case in 2014, was the arrest of the former Director General of the Rwanda Social Security Board (RSSB) for alleged corruption charges, relating to the of misuse of property of public interest, appropriation of unlawful favours, illegal award of public tender, giving for free or charging at lower prices the delivery of public or private goods[25]. Another more recent case is the August 2018 arrest of the University of Rwanda's Deputy Vice Chancellor (DVC). He is being investigated for awarding of undue advantages during the execution of a public tender –the construction of a satellite campus in the Eastern Province, which led to loss of public funds. It is further alleged that, the DVC authorised payments worth USD 1 million to the contractor, despite there being no works on ground to justify the payment. The Managing Director of the construction company was also remanded into custody at the same time.[26]

[23] http://www.newtimes.co.rw/section/read/13588/
[24] http://allafrica.com/stories/201208030956.html
[25] http://www.newtimes.co.rw/section/read/180845/
[26] http://www.newtimes.co.rw/section/read/218721/

Such high-profile cases, which are widely covered in the local media, both print and electronic, are an indicator of the government of Rwanda's intolerance for corruption even in the proverbial "high places". It is important to highlight that, in cases where the justice system acquitted some of the accused, the same equal coverage was made in the media and the individuals involved were reinstated into public service.

4.3 Governance of Rwanda's Health Sector

Over the last 23 years (post genocide), Rwanda has made steady progress in improving maternal and child survival outcomes. Central to this is, how Rwanda went about embedding the Millennium Development Goals. MDGs are embedded in Rwanda's long term and medium-term national policy documents such as the Vision 2020 and the economic development and poverty reduction strategy-EDPRS, in order to have country ownership for purposes of driving implementation (Ministry of Finance 2013). At the national level, planning for the health sector is done through the sector wide approach to ensure that resources are used effectively, and development assistance is well coordinated.

Furthermore, with the decentralisation system, districts are charged with implementing cross cutting government plans and policies. Since its introduction in 2006, the *imihigo* are used for evaluating performance results and increasing accountability at districts levels.

In contextualising the *imihigos* for the health sector under the decentralisation program, according to (Sekabaraga et al 2011: ii53) "the President signs multi-sectoral performance contracts (*imihigo)* with district mayors. The performance indicators for the health sector include: (a) the number of people subscribing to health insurance; (b) the number of institutional deliveries; (c) the number of women using family planning methods; and (d) the use of insecticide-treated bed nets".

It is important to note that all district *imihigo* are part of district development plans, which are also aligned to national development programs and priorities. According to (Rwiyereka 2014:4) "the government sees the *imihigo* as an invaluable tool in the planning, accountability, and monitoring and evaluation processes. It is a results-

based framework with three pillars: economic development, social development, governance and justice".

It ensures full participation and ownership of citizens. The decentralization policies of *imihigo* also enable the central government to demand accountability from local government officials such as mayors and district executive secretaries, by the same, citizens can demand accountability from the district development councils charged with public service delivery. This is also supported by local level communication of government policies especially those of health and education being disseminated and discussed at the conclusion of the monthly community work exercise known as *umuganda*. This is a useful traditional forum that, has enabled speedy communication of priority policy issues from the central government to the grassroots level of society. In these meetings, the Ministry of Health in conjunction with local government has been able to use community health workers to discuss pertinent issues including child nutrition, proper sanitation and the use of mosquito nets to avoid malaria incidence. The *imihigo* system has been credited with improving accountability and hastening the pace of citizen centred development programs.[27]

The Ministry of Health also adopts cross-sectoral planning and collaboration by working with other Ministries e.g. Gender, Education, religious institutions, and community members to improve immunization coverage through school-based vaccination programmes an approach implemented for the HPV vaccine against cervical cancer, which led to 96% coverage nationwide[28].

Furthermore, Rwanda is also credited with having a meritocratic civil service based on an incentive structure that rewards good performance and discourages poor performance - a critical element to MDG governance. Booth and Golooba-Mutebi (2011:16) further argue, "The Rwandan civil service scores highly on vertical coordination and technocratic integrity. This further enhances the legitimacy and integrity of the government as evidenced in the absence of high-level political corruption".

[27] http://www.rwandapedia.rw/explore/imihigo
[28] http://www.newtimes.co.rw/section/read/217491/

Following the devastation of the 1994 Genocide against the Tutsi, the Government of Rwanda set about to a major reconstruction phase aimed at overcoming the severe challenges faced by the health system. According to Bucagu et al (2012:51), "the 1994 genocide claimed more than a million lives. Most of the health facilities in the country were destroyed and the country lost a generation of trained health professionals". Consequently, according to Bucagu et al cited in (Ministry of Health 2015:10) the country "faced a severe health workforce shortage, especially of midwives. Other challenges to the health system included limited health infrastructure, poor access to institutional and skilled care during pregnancy and childbirth, inadequate coverage of emergency obstetric and new-born care (EmONC) services, as extremely low uptake of family planning services in a context of rapid demographic growth. There were also both socioeconomic and geographic barriers to health care that prevented women from accessing essential Reproductive Maternal and Neonatal Child Health (RMNCH) services".

In responding to these challenges, Binagwaho et al (2014:371) add that for the government of Rwanda, "the first steps to rebuilding the health system focused on ready access and accountability. With time, a consultative and evidence-based policy making approach enabled swift implementation of new programs in the sector". Furthermore, the Government was able to target primary causes of mortality by implementing different actions in the sector.

In order to address the challenge of geographical accessibility to health services, the health service delivery system is organised to mirror the country's local government administrative structures, this was done to ensure that healthcare is more equitably accessible to majority of the population at local level; district, provincial and referral hospitals. There are five national referral hospitals, each of the 30 districts has at least one district hospital, and 396 out of the 416 sectors have a health centre. Furthermore, health posts are gradually being set up to provide access to basic services at the cell level.

Community health workers, performance-based financing and human resources for health

Since 2005, the government of Rwanda has worked to address the shortage of human resources for health through various reforms and initiatives, such as the decentralization of the health sector as well as its human resources management. Condo et al (2014:2) and Ministry of Health (2015:12), note, "Rwanda reformed the national community health system in 2007 and CHWs are now required to have at least 6 years of basic education, and are elected by their villages. As at 2015, there were approximately 60,000 CHWs in Rwanda, comprising 3 elected CHWs per village and trained by the Ministry of Health. Each village has a pair of general CHWs called a *binomes* (male and female) who are responsible for integrated case management of childhood illness (IMCI), family planning". According to Worley (2015) community health workers play a key role in expanding the coverage of antenatal care and childhood immunization, they are trained and equipped by the Ministry of Health to deliver key basic preventive and diagnostic, treatment for conditions such as malaria and diarrhoea. Female community health workers in charge of maternal and newborn care, also refer patients to health centres.

Furthermore, CHWs and staff in health facilities receive financial incentives in addition to monthly salaries based on Rwanda's national performance-based financing (PBF) system. A percentage of the payment received by the CHWs is used to invest in cooperatives that engage in revenue generating activities. PBF incentives are provided to enhance staff commitment to delivery of quality health services Basinga et al (2011). The (PBF), is described by (Bucagu et al., 2012; Binagwaho et al., 2014), as one that "fosters, healthy competition between facilities and districts, as users of the PBF web database are able monitor their targets against set performance indicators. The PBF system rewards community health workers according to selected indicators, including the proportion of women delivering at health facilities and the percentage of children receiving a full course of basic immunizations among others. Such incentives have helped boost the use of maternal and child health services".

Faced with severe shortage of qualified and skilled personnel in the health sector, Binagwaho (2014:2) indicates that, "many years of political instability in Rwanda largely resulted to a flight of many health workers prior to the 1994 genocide, when even many more were killed". According to data from the Rwanda National Institute of Statistics (NISR 2015) as of 2015, "there was one doctor per 15,510 vs 1: 10,000 which is the recommended minimum by the world health organisation, one nurse per 1 236 people and one midwife per 15 891 people serving a total population of about 11million. Furthermore, before 1997, there was no specialised training of midwifery cadre in Rwanda".

However, according to Ministry of Health (2015:12), "since 2005, the government of Rwanda increased its efforts to address the challenge of the human resource shortage through various reforms and initiatives, such as the decentralization of human resource management and the increase in the number and quality of skilled birth attendants (especially midwives). All nurses are being upgraded through additional training and bachelor's degree training is also being promoted. Specialized residency training programs are being developed for doctors". As a way of continuously mitigating the shortage of a skilled health workforce, Binagwaho and Scott (2015:204) add that, "the government developed the innovative Human Resources for Health (HRH) program – a 7-year partnership with over 20 leading American Universities to pair American medical specialists with Rwandan clinicians, dentists, nurses and health managers in training, to increase both the quantity and quality of Rwanda's health professional workforce".

Evidence based policy making

Evidence based policy making is critical and the government relies on international surveys such as the Demographic and Health Survey (DHS) among others, to inform, plan and monitor implementation progress against set targets in the health sector. In Rwanda, problem-solving related to policy implementation and the willingness to draw lessons from experience have been distinguishing features of the policy process, notably in agriculture and health (Booth and Mutebi 2014:2). "In 2008, Rwanda was among the first among low-income countries to implement maternal death audits

(MDA) on a routine basis at facility level nationwide. The audits taking place in all district level hospitals have helped to classify the causes of maternal deaths, identify factors surrounding them and made recommendations for changes in professional care and behaviour in the community". Sayinzoga et al (2016:3) point out to findings from maternal death audits carried out between January 2009 and December 2013, that "70% were due to direct causes, with post-partum haemorrhage as the leading cause (22.7%), followed at (12.3%) by obstructed labour". In response to this, the Ministry of Health, put in place strategies to ensure adequate supplies of blood and swift transfer of mothers from health centres to district hospitals, such interventions led to a 50% reduction in deaths that due to post-partum haemorrhage and obstructed labour.

Universal healthcare through community-based health insurance

As mentioned in (MoH 2015:14), "the Rwandan government's objective of providing quality universal healthcare is an indication of its readiness to address economic and social barriers to accessing health services. Several initiatives have been implemented since 2000 to improve financial and geographic access to RMNCH services such as the innovative Community Based Health Insurance (CBHI) scheme known as *Mutuelles de Santé.* The scheme has the objective of providing a long-term solution to financial barriers to accessing primary health care, focusing on RMNCH services. The scheme intends to provide financial risk protection by lowering out-of-pocket payments and ensuring access to health care for vulnerable populations through a network of 30 district-based mutuelles, managed by the district and central governments. Community committees play a key role in the scheme as they are responsible for mobilizing and registering members, collecting fees and clearing bills from health facilities".

According to Chemouni (2014) Rwanda at 87 percent coverage, has one of the highest enrolments in health insurance in Sub-Saharan Africa, central to this achievement is the community-based health insurance (CBHI) program, which covers three-quarters of the population. Furthermore, according to Binagwaho et al (2014:2),

"the community-based health insurance (CBHI) programme has achieved nationwide coverage at rates of 91 percent, while another 7 percent of the population is covered by the public service, military, or private insurance plans. With the CBHI, Rwanda is well on the path to universal health coverage, as Community Health Insurance subscribers pay 10% co-payment at the point of care for services not fully covered, this is over and above their annual premiums. (Many preventive interventions, such as bed nets and vaccinations, are fully covered)".

Annual membership premiums are based on socio economic classifications of wealth. According to (Management Sciences for Health 2016:4) "Members are divided into three categories based on their economic situation. For Category 1 members, the poorest group comprising 27 percent of members, the premium per person is USD 2.99 per year, but that premium is paid by the government. Category 2 members, the middle group, comprising around 70 percent of members, pay (USD 4.35) per person per year. Category 3 members, the better off group, comprising around 3 percent of members, pay RWF 7,000 (USD 10.34) per person per year. The contribution is made at the individual level, but the whole family is enrolled".

Additionally, according to (MoH 2015:15), "annual membership premiums are based on wealth categories plus 10% co-payment for each episode of illness. CHWs transfer premiums to district-level *mutuelles* funds, which are 50% subsidized by external donors. Funds are used to pay healthcare providers on a payment per case basis. A standard set of RMNCH services is covered by the scheme, such as antenatal care (ANC), deliveries, EmONC, family planning, laboratory tests and essential drugs. Members are entitled to ambulance transport, a minimum service package at a health centre and a complementary package at district facilities and national referral hospitals.

Enrolment in the community-based health insurance scheme-*mutuelles* is compulsory with over 90% enrolment rates, the scheme has enhanced the performance of primary healthcare providers and improved medical care utilization.

Furthermore, the scheme was shown to reduce excessive out-of-pocket payments and was significantly associated with a higher degree of financial risk protection and greater utilisation of healthcare services. The *mutuelles* system is promoted and supported by the government, international agencies and non-governmental agencies".

Health sector financing and sustainability

The importance and role of adequate and sustainable health sector financing towards the socio-economic development of any nation cannot be over emphasised. The Abuja Declaration of 2001 requires African countries to devote at least 15% of their annual budget to the health sector, at the same time, international donors and development partners were requested to increase their support. The public health budget earmarked for the health sector increased from 8.2% in 2005 to 11.5% in 2010/11 and 15.5% in 2012/13[29].Rwanda's health sector has over the past two decades benefitted from tremendous support from multilateral development partners, 63% of the health sector budget was donor financed in 2010 up from 53% in 2006[30] in light however with developments from the global financial crisis and other externalities, these external funds are decreasing. According to the Health Sector Strategic Plan (MoH 2012:68), "Rwanda has been successful in improving resource mobilization from both domestic and external sources. In terms of revenue collection, there has been increased revenue mobilization from domestic sources, mainly organized in Community-Based Health Insurance schemes and other private insurances; from public funds (from tax-based funding); and from external funding channelled through general budget support, sector budget, and project support. In terms of revenue pooling, public funds are transferred to health facilities, as well as other insurance schemes, such as Rwanda's Medical Insurance Agency (RAMA) and Military Medical Insurance (MMI)."

[29]Ministry of Health Rwanda, Health Financing Sustainability Policy (2015)

[30]Ministry of Health Rwanda, Health Sector Strategic Plan (2012-2018)

Use of innovative simple technologies and research

Rwanda has long been at the forefront of adopting new technologies. Farmer et al (2013:2) mention that, "there was a roll out of the implementation of a real-time alert system for improving maternal and child health using the *Rapid SMS* model (A mobile phone-based alert and audit service for maternal and child health)". Furthermore, (MoH 2015:19) adds that, "since 2010, this innovative application developed by UNICEF, called *Rapid SMS*, has been scaled up at the national level and is now an integral part of the health system. All 15 000 CHWs responsible for RMNCH promotion were given mobile phones which are linked to central MoH server. An initial evaluation of the *RapidSMS* pilot in Musanze district revealed an increase in ANC visits and facility deliveries".

The alert system tracks the maternal and neonatal life cycle, and is connected to a central database, with an auto-response sent to the nearest health centre, this creates a connection between the community health workers and nearby health facilities. The system also includes an alert for each child, maternal or neonatal death, which then initiates a maternal and newborn death audit by the supervising health facility. [31]

According to MoH (2012:76), the Health Management Information System (HMIS) of the MoH gathers routine data on health services provided through health centres, district hospitals, private hospitals, referral services and community health workers. Collected date is subject to frequent reviews and is used to inform health sector prioritisation, planning, monitoring and evaluation as well as budgeting. Health sector related information is made publically available thus enhancing accountability and transparency.

In May 2017, Rwanda piloted the use of drones with Zipline, a Silicon Valley company to deliver emergency blood supplies to five of its hospitals. With the drones, Doctors place their request for medical supplies through a text message and the supplies are dispatched from a hub, located next to a medical warehouse facility, to

[31] https://www.unicef.org/rwanda/about_14149.html

remote regions within minutes. Each battery-powered drone, named the Zip, can carry up to 1.5kg of emergency medical supplies like blood. The use of drones to deliver essential medical supplies is expected to reduce the delivery time from 15 hours to 15 minutes[32].

Political prioritization of essential health interventions

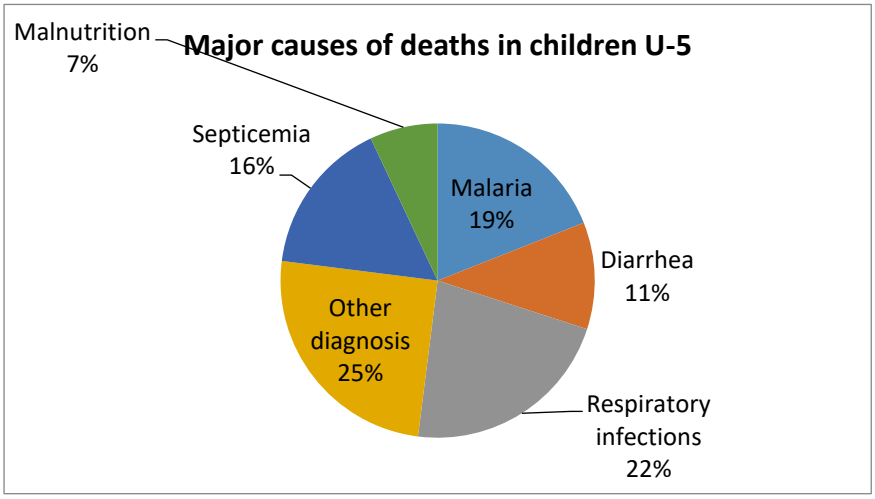
According to MoH (2015:13), "the series of health sector reforms that have taken place in the last decade confirm the government's prioritization of MDGs 4 and 5. The government's sustained focus on health systems strengthening has been a key factor in providing effective RMNCH services. Instead of implementing vertical and disease-specific programmes, the government has been pooling these funds (i.e. The US President's Emergency Fund for AIDS Relief and Global Fund to fight AIDS, TB and Malaria) to finance the integration of primary health care services. All health facilities whether public, private or not-for profit (mainly faith-based) are integrated within the public health system and governed by the Ministry of Health (MoH). Although some faith-based health centres may not offer modern methods of family planning, they are obliged under the Family Planning Policy to provide clients with information on all family planning options and to refer them to family planning outlets (*postes secondaires*) where they can access the required services; this is another example of service integration".

Universal immunisation coverage and distribution of treated bed nets- In 2012, in addition to the pre-existing routine infant and childhood vaccinations, Rwanda introduced the Rotavirus and Pneumococcal vaccines; this reduced the incidence and deaths of children under five from severe diarrhoea and pneumonia.

[32] https://www.cnbc.com/2016/05/27/how-rwanda-is-using-drones-to-save-millions-of-lives.html

Figure 7 below shows the major causes of under-five deaths in Rwanda over 2012/13.

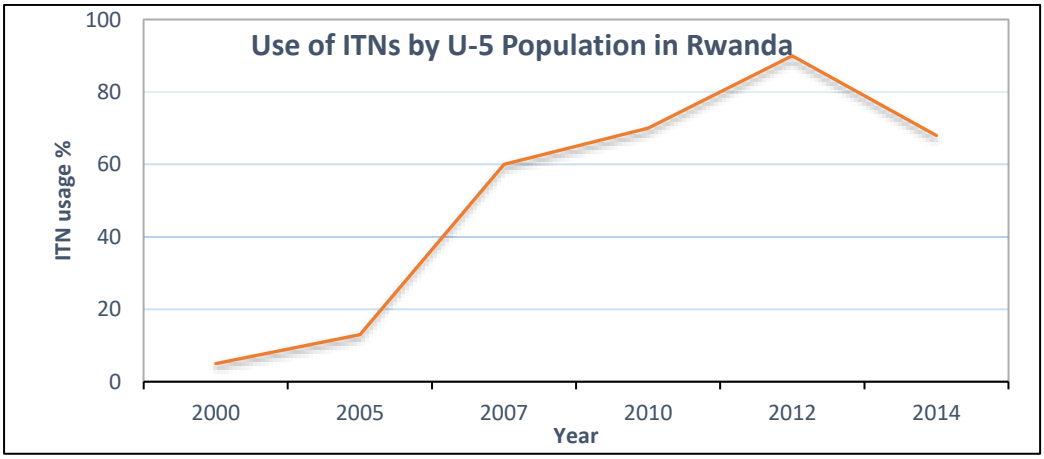
Figure 7: Causes of under five deaths in Rwanda 2012/13



Source: Rwanda-Ministry of Health statistics 2013.

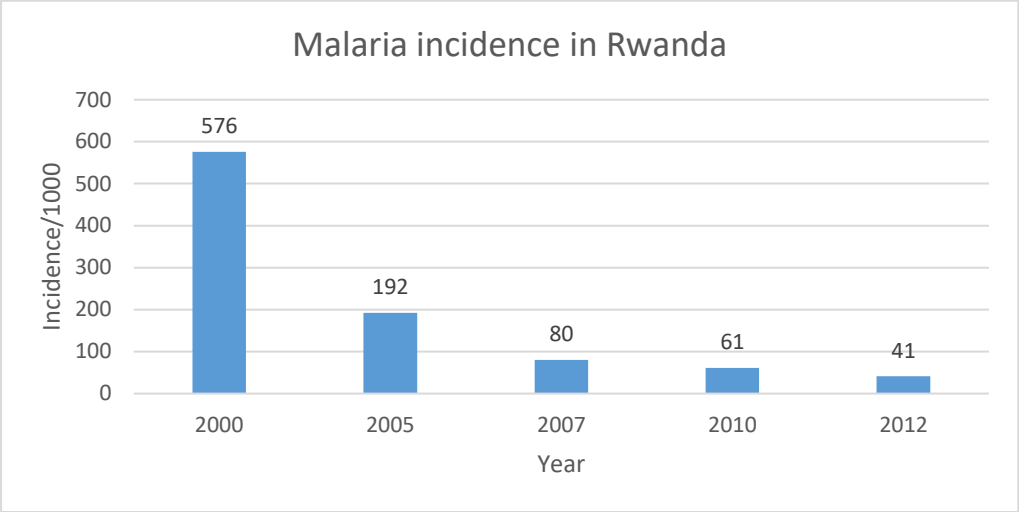
Furthermore, widespread sensitisation of communities, with specific focus on pregnant women and mothers has also led to increased usage of insecticide-treated nets to reduce malaria prevalence, which consequently led to reduction of under-five mortality. As shown in figure, 8 and 9 which relates increased use to ITNs to reduction in under five mortality rates.

Figure 8: Use of insecticide treated nets in Under-fives in Rwanda 2000-2014



Source: Rwanda DHS 2014/15.

Figure 9: Malaria incidence in Rwanda 2000-12



Source: Rwanda-Ministry of Health statistics 2013.

Policy initiatives outside the health sector

Education: Fertility rates, childbearing age and the uptake of modern contraceptives are all directly affected by the level of a woman's education. Improved educational status in women has been shown to be related to lower infant mortality rates and improved performance on other health indicators.[33] The rate of under-5 mortality in Rwanda is almost twice as high for children born to women with no education than women with at least secondary education (63 versus 125 deaths per 1000 live births).[34] Rwanda developed a Girls' Education Policy in 2008, which aimed at improving girls' enrolment, retention, completion and transition to higher levels of education, this in turn contributed to eliminating gender disparities in education. Furthermore, in line with the Government's multi sectoral approach, the Ministry of Health contributes to various health promotion programmes in schools in the area of hygiene, nutrition, promotion of immunization, reproductive health, and HIV prevention[35].

[33] http://www.who.int/pmnch/knowledge/publications/rwanda_country_report.pdf

[34] Ibid
[35] Ibid

Infrastructure, water supply and sanitation: Following the 1994 genocide, the government of Rwanda set out to rebuild the country's destroyed infrastructure, including the health system. 60% of the population lives within a 5 km radius of a health facility, while 85% within a 10 km radius, this is in directly addressing the gaps in geographical accessibility to health services. In 2012, there were five national referral hospitals, 40 district hospitals, 450 health centres, and 157 private health facilities. On average, each district has at least one district hospital and one health centre per 20 000 population.[36]

Although according to Ministry of Health (2015:18) "74% of the population in Rwanda has access to an improved water sources, continued efforts are needed to increase access to clean water. Access to safe drinking water and improved sanitation are associated with better health outcomes. Rwanda needs to continue to improve sanitation facilities for its population.30 However, a number of policies and programmes have been elaborated to achieve the MDG targets for water and sanitation, under the umbrella of the Vision 2020 strategy, which aims for universal access to clean water and sufficient sewage and disposal systems by 2020. These initiatives include promotion of hand washing stations, known as *kandagira ukarabe* in vernacular which means step and wash, for restaurants, schools and public places".

Socioeconomic empowerment of women is essential for achieving better outcomes in maternal and child health. With women representing 52 % of the population in Rwanda, it is only logical that gender issues have been mainstreamed into broad government policy. Women in Rwanda currently hold 64% of parliamentary seats, the highest in the world[37]. Women economic empowerment has also been a main area of focus for the government, through fostering women's credit and cooperative unions which provide access to low interest loans without collateral, women have been able to improve their incomes, enabling them to for their health insurance, feed their children and send them to school, all of which ultimately influence their health and that of their children.

[36] ibid
[37]http://www.unwomen.org/en/what-we-do/leadership-and-political-participation/facts-and-figures#note

One cow per family "Girinka Program: Vulnerable families are identified based on their social classification and are given a cow and when the cow has a calf they pass on the gift to another family in their community, focusing on families with the most need. *Girinka* was set up with the central aim of reducing child malnutrition rates and increasing household incomes of poor farmers, by providing heifers, which make for increased access and consumption of milk, by poor households. The cow dung is collected as organic manure and this has assisted in increased crop yields for household and small-scale farmers. The program has been crucial to addressing food security issues in specific parts of the country. Since its inception in 2006, more than 203,000 families have benefited from the program and the target is to reach 350,000 families by 2017[38].

Discussion

Underpinned by a governance system that is hinged on good leadership, country ownership for effective policy implementation and enforcement of accountability through home grown solutions like *imihigo*, which has become mainstreamed across various levels of society from central to local government, even as far as individual families. Thus, the integration of *imihigo* within the health sector has, in addition to other interventions, has become the baseline for measuring and ensuring quality and efficiency in health sector interventions.

As such, Rwanda, despite resource limitations, was able to employ a combination of innovative evidence-based policy reforms that cut across the health sector, thus enabled a reduction of maternal and child mortality and the attainment of MDGs 4 and 5 as discussed in the preceding section.

Challenges

However, for Rwanda to consolidate the gains made, and continue with progress registered, there are challenges, which nonetheless still exist and need to be looked into. There is need to continuously reduce geographical barriers to accessing health services as indicated in MoH (2015), remote rural areas are underserved with about

[38]Rwanda Ministry of Agriculture: http://www.minagri.gov.rw/index.php?id=28

40 percent of the of population taking more than an hour to reach the nearest health facility. Issues of service quality need to be constantly monitored and addressed, since there is increased uptake and utilisation of health services in facilities.

Rwanda currently has a high fertility rate of 4.2 births per woman, coupled with as high as 19% of married women having an unmet need for family planning[39]. There is need to curb Rwanda's rapid demographic growth and high fertility rate by focusing on closing the gap of unmet need for family planning. Family planning services should be made available to all including young and unmarried people.

Having elaborated and discussed the governance Rwanda's health sector and the implementation of health policy and challenges faced thereof, the discussion will now turn to contrasting with the Ugandan case for comparison.

4.4 Governance of Uganda's Health Sector

Over the last two decades, Uganda has made progress in improving maternal and child survival. The different health sector interventions that Government and development partners have made towards targeting the primary causes of mortality are elaborated below. The narrative below is based on official government documents (Uganda's 2013 RMNCH plan, MoH 2015 report, and the DHS 2016).

Health work force -According to Uganda's 2013 RMNCH plan and MoH (2015) annual report, "the current staffing norms are that, HC III and IVs which serve populations of 30,000 and 100,000 are provided 2 and 3 midwives respectively, a highly inadequate number, only 70% of midwife positions are currently filled. Yet the recommended number by the World Health Organisation WHO is 1 skilled birth attendant for every 175 pregnant women. Uganda, however, only has one midwife per 7000 births. This shortage of midwives is compounded by inequitable and inefficient distribution depending on rural and urban settings. To counter this, the

[39] Rwanda DHS 2014/15

government has recruited additional staff and has put in place staff retention incentives for rural facility health workers, it must still be mentioned that the capacity to recruit qualified health workers varies from district to district and between urban and rural settings with over 80% of doctors and 60% of nurses located in hospitals, which largely serve urban populations. Additionally, a competence-based training program, which provides scholarships, has been established to improve the shortage of midwives in the country".

However, the sharp increase in the number of districts in the country (from 34 in 1990 to, 112 in 2012) further aggravates this problem and has further exacerbated already existing disparities. Some new districts lack physical infrastructure and the critical personnel and resources to effectively perform as a "functional district health system. Many of the newly created districts find it difficult to attract, recruit and retain critical health workers.

Integrated Community Case Management-Village Health Teams (VHTs) are currently being used to distribute medicines for the home treatment of common childhood illnesses, they work with partners including WHO, UNICEF, Malaria Consortium, Healthy Child Uganda. Through this initiative the government has managed to reduce the treatment gap for malaria, pneumonia and diarrhoea in under five children in very remote areas including Karamoja. To improve the continuum of care VHTs are now able to conduct postnatal care visits during the first week of life including registering and referral of pregnant women. The initiative has been rolled out in 34 districts and currently, following an evaluation the government will be scaling up this initiative to include main medicines supply chain system.

Over the last five years, the Ministry of Health has been conducting Child Days that focus on vitamin A supplementation, mass deworming, and improved mass immunisation coverage, promoting the use of insecticide-treated bed nets, improved hygiene and breastfeeding practices and health education.

Basic health infrastructure- According to the Uganda 2010 MDG progress report (Ministry of Finance Uganda 2013:54), highlights that, "basic infrastructure such as electricity, water, communication, means of referrals, adequate staff quarters, and security (especially at night) are the main obstacles to running 24-hour, quality emergency obstetric care services, especially in remote and rural areas. For example, only 31% of facilities have year-round water supplied by tap or available within 500 metres. The situation is worse at Health Centre II level, where only 23% have regular water supply. The same goes for electricity. About 24% of health facilities—and only 14% of Health Centre IIs—have electricity or a backup generator with fuel routinely available during service hours. Finally, with respect to basic patient amenities, only 42% of the health facilities have a functioning client latrine, a waiting area protected from sun and rain, and basic cleanliness. Government has prioritized infrastructure development in its national budget and in the National Development Plan to address constraints to growth, which will also have a favourable outcome for the health sector".

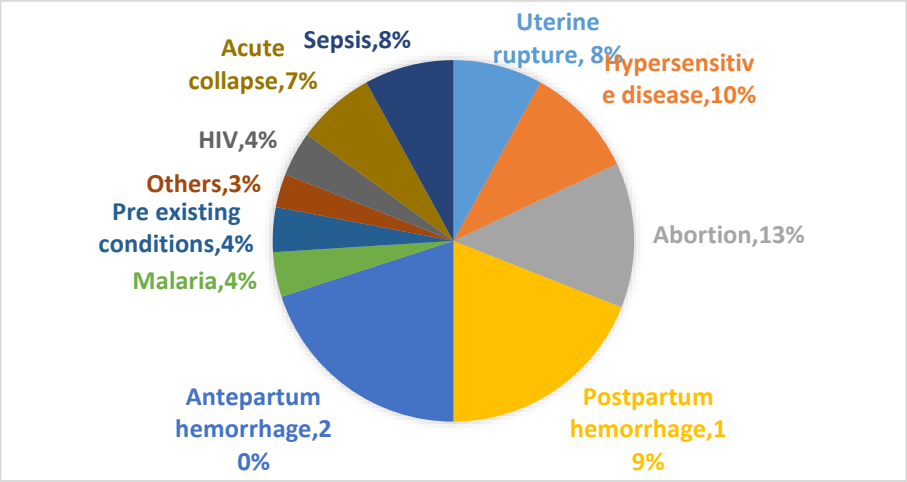
Furthermore, Ministry of Finance Uganda (2013:V) specifically regarding the reduction of maternal deaths, the Government prioritized four key interventions in the area of maternal health: namely 1) Emergency obstetric care which addresses the major direct causes of maternal death. 2) Skilled attendance at birth helps to detect and manage complications. 3) Family planning to prevent unintended pregnancies and enable women to have pregnancies neither too early, too late nor too frequently. 4) Effective antenatal care can prevent, detect, and treat problems such as malaria, anaemia, HIV/AIDS and other infections, which frequently are indirect causes of maternal deaths.

In improving access to emergency obstetric care (EmOC), and ensuring births take place in health facilities, Ministry of Finance Uganda (2013:46) "the Government has prioritised the provision of EmOC as being a critical intervention for a significant reduction in maternal deaths. Most maternal deaths are due to preventable causes for which highly effective interventions are known. The most common causes of maternal death are hemorrhage, infection, sepsis, hypertensive disorders, unsafe abortion,

eclampsia (very high blood pressure leading to seizures) and obstructed labour. These according to the WHO are responsible for about 80% of maternal deaths worldwide"

Figure 10 below, shows the major causes of maternal deaths in Uganda. Therefore, EmOC is a key intervention for drastically reducing the MMR.

Figure 10: Major causes of Maternal Mortality in Uganda



Source: Uganda Ministry of Health 2013

By 2013, around half of public healthcare facilities were providing basic obstetric care or had at least one staff member trained in managing complications in pregnancy and childbirth. To accelerate reduction in the MMR, the government has prioritized access to skilled birth attendants, increasing health worker recruitment to detect and manage complications during pregnancy. Consequently, the percentage of deliveries in health facilities remarkably increased from 57% in 2011 to 73% in 2016[40]. Furthermore, institutionalized routine home visits taking place the first of delivery by Village Health Teams have been put in place. There is also continued progress towards improving transportation systems for new mothers to access emergency care and distribution of Emergency Obstetric and Newborn Care (EmONC) equipment to health facilities across the country.

[40] UDHS 2016

Despite the availability of safe, affordable and effective methods of contraception, the proportion of women between the age of 15 and 49, married or in union, who were using any method of contraception, only increased from 23% in 2001 to 29% in 2016, coupled with the unmet demand for family planning services rising from 24% to 28% over the same period. Adolescent fertility remains a critical issue on both health and social grounds, as children who are born to very young mothers are at increased risk of sickness and death. Furthermore, teenage mothers are more likely to experience adverse pregnancy outcomes and are more constrained in their ability to pursue educational opportunities than young women who delay childbearing.

In Uganda, 25% of girls, aged 15-19 years have already had a child; this high adolescent birth rate reflects the low rate of contraceptive use and high incidence of early marriages in many Ugandan communities.

According to Ministry of Finance Uganda (2013:47), "Effective antenatal care can improve outcomes for mothers and newborns as antenatal care is a potentially important way to connect a woman with the health system, which, if it is functioning, will be critical for saving her life in the event of a complication. In Uganda, 94% of all pregnant women make one antenatal visit but only 60% make the recommended four visits. The greatest opportunity for improvement in Uganda is to focus on encouraging expectant mothers to start antenatal care early. Expectant mothers have their first antenatal visit late in the pregnancy—a median of 5.5 months—which is too late for some to benefit and to make follow-up antenatal visits".

Like Rwanda, maternal and perinatal death reviews have been instituted nationwide. These are done with the objective of reviewing all deaths as a means of identifying causes and avoidable practices. They are carried out by an independent team and findings inform the improvement of quality service provision. All deaths are reported on the ministry of health surveillance system and reported weekly.

Main challenges affecting delivery of maternal and child health in Uganda

Twimukye et al (2011:7) and WHO[41] highlight the major challenges impeding the effective implementation of policy interventions geared towards reducing maternal and child mortality as follows.

"Firstly, there are financing pressures to increase resources allocated to the health sector. This invariably calls for sufficient prioritization of key interventions. However, inadequate public accountability, and incomplete harmonization and alignment of development partners' funds and programs with government priorities further aggravate this.

In the delivery of services, the infrastructure and equipment for the supply of maternal health services still needs further improvement. Poor adherence to national standard treatment guidelines and/or clinical protocols in public and private sector is common and needs attention. Referral systems are not readily available to send women from one facility to next, leaving the burden to often very poor families. Furthermore, insufficient supplies and commodities, as well as limitations in transport and communication for referral, are also key challenges in the supply of maternal health services.

Other challenges worth noting affecting utilisation and demand for maternal health services include, indirect financial costs, such as those associated with the transportation of and access to drugs (despite the abolition of user-fees), as well as cultural norms and social influences. In utilisation, there is high-unmet need for, yet low use of the four above-mentioned priority interventions. Physical access, especially transportation for skilled attendance and emergency obstetric care, is also a constraint".

Furthermore, the World Health Organisation (WHO) points out that, owing to limited and inadequate funding, the shortage of human resources and inadequate logistics, research in Uganda has mainly been donor driven, with well over 90% of health research funding being attributed to external sources. Ways to improve

[41] http://www.aho.afro.who.int/profiles_information/index.php/Uganda:Issues_and_challenges_-_Progress_on_the_Health-Related_MDGs

information sharing in the sector would be to make sure research is coordinated by one body and for the provision of a centralized electronic database[42].

Even though, Uganda has some basic infrastructure for the governance of its health sector, however, these structures are weak and under resourced. One of the weaknesses stems from poor donor aid coordination, worsened by weakness in leadership at the district level, which makes it difficult to get the necessary ownership for effective policy implementation[43].

The presence of financial barriers still prevent access to health care services, despite the government's abolition of user fees in public health facilities in March 2001. Due in part to the expansion of the private sector as service providers and to the other costs associated with seeking care (such as payment for medicines, which are often unavailable at health centres, and transportation), out of- pocket expenditures remain a prominent source of financing for the health sector. While the use of public facilities increased substantially after the abolition of fees, the share of household expenditure on health as a percentage of total household consumption remains high. Unlike in Rwanda where there is a community-based health insurance system, the Government of Uganda is yet to institute a social health insurance system to harness the out-of-pocket expenditure so that use continues to be decoupled from payment[44].

Physical barriers still substantially prevent adequate access to health care services in Uganda. Further still, physical access is related to financial accessibility especially for assisted delivery and emergency obstetric care. Difficulties of ensuring transport for mothers from home to a health facility, and from a health facility to a referral facility, are the key manifestation of this bottleneck. The transportation challenges from homes to health facilities are mainly related to physical barriers such as lakes, rivers, and mountains; difficulties of travelling at night; lack of communication; lack

[42] WHO: Africa Health Observatory 2016
[43] http://www.aho.afro.who.int/profiles_information/index.php/Uganda:Issues_and_challenges_-_Progress_on_the_Health-Related_MDGs
[44] Ibid.

of available transport means coupled with high transportation costs. In such cases, time is of the essence. If there was a system in place to transport women in labour within 30 minutes to a facility, where there are antibiotics, blood transfusions and the capacity to perform Caesarean sections, maternal mortality rates would be reduced significantly[45]

However, it is only in Kampala the capital city where transportation time to a referral facility takes less than 30 minutes (15-20 minutes) both in the dry and rainy seasons. In the remaining regions, the median transportation time is above 30 minutes in both the dry and rainy seasons. The worst regions are the West Nile and the western regions, where transportation time is about 90 minutes in the rainy season[46].

In contrasting the governance of the health sectors in Rwanda and Uganda, one of the striking differences emerging is in Rwanda. Concerning policy issues, there are strong linkages between the local and central levels for policy implementation and evaluation, as well as between the health sector and finance ministry. These are particularly striking and are indicative of the generally strong intra-governmental accountability. Uganda on the other hand, despite having good laws and policies in place, these ultimately fail to be implemented due to lack of ownership, poor implementation and accountability mechanisms. Uganda's low levels of effective policy implementation contrasts sharply with the situation in Rwanda, which is further evidenced by Rwanda's higher score in 'government effectiveness' Holvoet and Inberg (2014:513). In short, better quality governments usually have positive effect on development outcomes thanks to efficiency in the delivery of public services.

The next section presents the conclusions and recommendations stemming from the emerging findings relating to the governance of the health sectors in Uganda and Rwanda.

[45] http://www.aho.afro.who.int/profiles_information/index.php/Uganda:Issues_and_challenges_-_Progress_on_the_Health-Related_MDGs.
[46] Ibid.

CHAPTER 5: Recommendations and Conclusion

In this section, the paper concludes by presenting context relevant recommendations of policy interventions to be considered for implementation in order to accelerate the reduction of maternal and child mortality in Uganda. The recommendations given are broad and far-reaching, specific policy interventions that worked in the case of Rwanda could be considered for Uganda especially since both countries fall within the same level of low income and post conflict contexts. It is further highlighted in Overseas Development Institute (2012:2) despite differences in some aspects, "both countries share similar conditions of general resource scarcity, both rely on external financing for public health care and both implemented decentralisation for the devolution of health service delivery to the local levels". Despite this, however, progress on maternal and child health indicators have not been even.

Although it may be argued as indicated in Binagwaho & Scott (2015:203) that "Rwanda's small size, location, history and other characteristics make it too unique, limiting the ability to generalise lessons learned beyond its borders. However, we must not forget that Rwanda was considered by many to be a failed state 22 years ago with its devastated economy and health system following the genocide. Thus, the lessons that Rwanda has learned while making such notable progress towards the MDGs, despite these challenges, may be useful and applicable for other countries to reflect upon beyond 2015".

Despite indicators in the previous chapter which suggest that, of the three countries, countries analysed, Rwanda was the only one that met MDG 4 and 5, while Uganda did not meet MDG 4 and 5 by the 2015 target. These countries are not isolated cases from sub Saharan Africa. As indicated in Chi et al (2015:1) "post-conflict health systems face different challenges in the delivery of maternal and child health services. Consequently, they require context-specific interventions to improve service delivery.

Improving maternal and neonatal health is particularly challenging in conflict, post-conflict and other crisis settings. This is partly associated with the delivery of disrupted and fragmented health services as health systems in such settings are characterised by damaged infrastructure, limited human resources, weak stewardship and a proliferation of poorly organised non-governmental organisations. The 2011 World Development Report suggested that no low-income conflict-affected country had achieved a single MDG and all were furthest away from achieving any of the MDGs".

(Chi et al 2015:2) add that, "Uganda is among the countries in Sub-Saharan Africa that are not poised to meet the fourth and fifth MDG goal of improving maternal health. It experienced brutal civil wars that claimed tens of thousands of lives and displaced millions of people. The Northern region of Uganda is recovering from over 20 years of armed conflict between the Lord's Resistance Army and the Ugandan Government that resulted in about 2 million people being displaced".

Chi et al (2015:12) "In rebuilding the health systems of countries emerging from post conflict settings, there is need to take into consideration the prevailing challenges to ensure efficient use of limited resources and provide maximum impact. In this regard, experts have recommended that health systems strengthening programmes in such settings should put more emphasis in the short-term on the provision of primary health care services, using existing human resources for health, community structures, NGOs and mobile outreach clinics. Programmes such as the renovation and construction of health facilities and the development of human resources for healthcare are more likely to succeed in the medium- and long term".

For Uganda, the starting point to ensuring maternal and child health outcomes improve is to understand the crucial role of health as a prerequisite for country socio-economic development and viewing development policy such as poverty reduction, decentralisation and public service reform from a health perspective. In this regard, such governments in post-conflict settings along with their development partners, must carefully design the core elements of the health system to provide reliable

essential health while ensuring that it addresses issues around equity, government accountability to citizens, and governments' capacity to manage important social programs". This opinion is reemphasised by Zwi & Grove as cited in Kruk et al. (2010:92), "the manner in which the government deals with inequities in health and how it allocates overall health care resources provide the population with insight into its values and priorities". As highlighted by Binagwaho & Scott (2015), "Rwanda's approach was one of promoting among policy-makers and implementers those development goals that were driven by concrete and meaningful equity agendas extending beyond the traditional "health sector" to tackle the determinants of heath in a comprehensive manner". This was considered when Rwanda first created its community-based health insurance scheme (*Mutuelles de Santé*), the poorest million in the country were the first to receive free health insurance, beneficiaries were identified by the "*ubudehe"* a traditional Rwandan societal classification system to help identify the most vulnerable in society. Through *mutuelles* the issue of universal coverage is gradually being addressed". This initiative could be implemented in Uganda.

Furthermore, there is need for addressing governance aspects such as government effectiveness and control of corruption aspects, which as indicated in chapter 4; Uganda scored lower in both instances compared to Rwanda. Such aspects of governance have a large bearing on the performance of any government and its public health system. As indicated in WHO (2014:138) "good governance is one of the elements of good leadership. Using evidence to form policy, good leadership for health demands accountability at all levels from the community upwards. Good governance is a key determinant of good health outcomes in countries. Within countries, between countries as well as at global levels, governance for health is manifested through policies and legislation in all areas having a direct or indirect bearing on the health of the population".

According to Lomazzi et al. (2014:7), health care systems require good governance and lack of corruption to thrive and become sustainable, health care systems in corrupt settings become weak, unsustainable, and ineffective. Furthermore, Joshi (2011:347) adds that "governance matters in the effectiveness of policies and the

competence of public bodies and as such is a prerequisite for development. Accountability and transparency are both critical elements of the states in delivering essential services such as education, health and infrastructure effectively". In a 2011, comparison between developing countries and those of the Organization for Economic Cooperation and Development (OECD) points to the fact that, "all thirty OECD member states have strong state capacity and were on track to meet the MDGs. Most countries outside the OECD, however, were likely to miss most MDG targets, and in most cases, they had weaker state capacity". These OECD states are high-income and upper-middle-income countries, their prosperity and MDG attainments could be primarily as a result of strong state capacity or government effectiveness, which can be described as the state's ability to perform appropriate tasks effectively, efficiently, and sustainably. This is pivotal to meeting the development targets because providing public goods and services like education, healthcare, water, and sanitation to all people (including the poor) ultimately requires a progressive transfer of resources to the destitute, disadvantaged, and women. It especially means increasing services to low-income, subsistence, rural, indigenous and ethnic minority communities that are currently underserved.

Furthermore, for Uganda to strengthen local governance, responsibilities on all levels of decentralised government should be clearly articulated. Policy implementers should be held to account, based on agreed upon performance indicators. There could be an introduction of performance contracts like the Rwandan *Imihigo* system as a way of strengthening and improving service delivery, evaluating performance and ultimately increasing accountability.

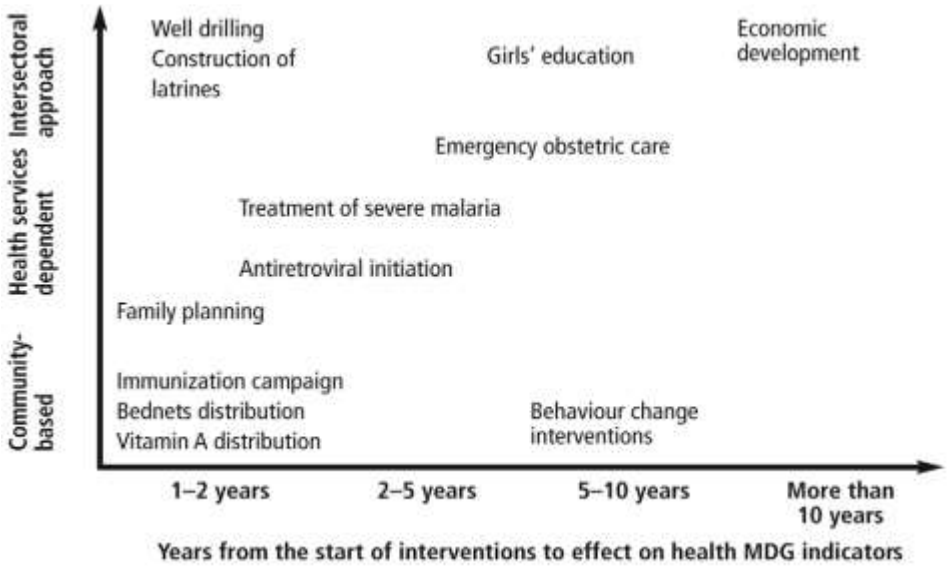
Uganda faces a dearth of skilled personnel in the health sector. In looking to mitigate this issue, strengthening the existing program of Village Health Teams, is a quick and inexpensive way to train a critical mass of people to provide basic health care such as malaria diagnosis, treatment of diarrhoea, pneumonia and sensitisation on childhood immunisations. Such an approach would also help to extend the reach of the health system and increase access for the most vulnerable children in need of care. This would help build a cross sector approach targeting key family and community

practices that promote health and nutrition.

In Richard et al. (2011:49), "health-related interventions are categorised in two categories, those that can yield short term, medium-term and/or long-term results. The interventions that yield short-term results tend to be simple to implement over a short period, they are effective and yield quick wins. Scaling up the implementation of measles vaccination to reduce child mortality can be delivered at the community level and can quickly reach high level of coverage if effectively rolled out. Furthermore, increasing access and reducing the unmet need for family planning, an MDG5 indicator could be considered a quick impact intervention in Uganda (an efficient way to reduce unintended and unwanted pregnancies and thus maternal mortality, with the possibility of outreach activities at community level including the youth). It can also contribute to reducing the total fertility rate and population growth. There is need to pay particular attention to the reproductive and nutrition health needs of adolescent girls and avail them with access to family planning services, the results from such interventions are high yielding and long term in nature".

Figure11 below illustrates the timing of different interventions and timelines for impact.

Figure 11: Short, medium- & long-term interventions: timescale & sectoral involvement



Source: Richard et al 2011.

The critical role of women and mothers in supporting the implementation of maternal and child health policies cannot be overemphasised. There is need to ensure that women are empowered to play an active role in their communities. According to Veneman (2006:1046), "rural mothers in Ghana were trained and educated on how to improve their behaviours and practices for a number of key maternal, neonatal, and child survival interventions, including exclusive breastfeeding and oral rehydration therapy, and for the recognition of danger signs and when health care is needed. This programme also involved a bottom-up approach to health-care management. Whereby at the community level, health-care providers are trained and supervised to assess problems in the delivery of services and to identify solutions. Performance contracts are established between communities and health-care providers and progress is assessed through participatory methods involving visual charts. These interventions were highly successful and reduced about 20% of child mortality cases between 2002 and 2004 in rural Ghana".

With regards to overcoming the challenge of geographical access to health facilities, it is critical that government investment in infrastructure and equipment is prioritized for remote areas. Uganda could consider engaging in interventions that generate long-term results require an inter-sectoral approach on a broad scale. Girls' education and economic development are good examples. (Clarke & Feeny 2011:511, 513) share this opinion, "devoting resources to improving the social and economic opportunities of adolescent girls offers a proactive approach with multiple long-lasting effects and it assists in breaking gendered and intergenerational poverty on not only these girls directly. But further yields multiplier effects on their future families and communities across a range of economic and social sectors. The profound effect of women's education on child survival is well-established. Improvements in women's education account for half of the decline in child mortality since 1970".

The availability and provision of quality Emergency Obstetric and Neonatal Care (EmONC) services remains the most effective way of reducing maternal and newborn deaths and disabilities. In implementing this intervention, attention should also be

paid to the issues around staff motivation, retention, supervision, support and recognition; burnout and turnover; and improved living and working conditions (Chi et al 2015). The implementation of performance-based financing system could be considered by Uganda since it has contributed to positive health system outcomes in neighbouring Rwanda.

The use of innovative simple technologies should also be considered, through the implementation of the (Rapid SMS) for improving child health. The system is used as a primary point of contact between the community health workers and the nearest health centres enables for rapid communication with regards to treatment options for maternal and child health especially in remote areas.

Lastly, the health sector does not operate in isolation and cannot achieve health-related goals as an isolated, stand-alone system. This is reiterated in Binagwaho & Scott (2015:204) For example, "it needs the involvement of local leaders who govern by proximity and ensure the implementation of social policies, the transportation and infrastructure sector to build roads that can reduce transit time for ambulances to reach hospitals, the communications sector to help promote the existence of new healthcare services, and so forth".

Table 6: Cross comparison of policy interventions in Rwanda and Uganda

Policy intervention	Rwanda's actions	Uganda's actions
Policy implementation supported by strong monitoring, evaluation and accountability mechanisms.	Strong and coherent linkages between the local and central levels for policy implementation and evaluation, as well as between the health sector and finance ministry. Use of homegrown solutions like the *imihigo* system for performance evaluation and accountability.	Laws and policies are in place, however there are low levels of implementation due to poor ownership and low enforcement of accountability mechanisms.
Performance based financing model	The PBF system is used to reward CHWs according to selected indicators, e.g proportion of women delivering at health facilities and the percentage of children receiving a full course of basic immunizations among others. Such incentives have helped boost the use of maternal and child health services.	
Universal coverage and equity in accessing primary health care services focused on most vulnerable parts of the population	Implementation of a community-based health insurance scheme (*Mutuelles de Santé*), the poorest million in Rwanda were the first to receive free health insurance, beneficiaries were identified through "*ubudehe*" a traditional Rwandan societal classification system to help identify the most vulnerable in society.	Abolition of user fees has led to increased uptake of health care services, mostly benefitting the poor. Despite this, out of pocket expenditure remains high. .
Quick innovative and inexpensive methods of addressing human resources for health challenges.	Deployment of 60,000 community health workers to provide basic health care such as malaria diagnosis, diarrhea treatment and sensitization on childhood immunizations.	Village Health Teams (VHTs) are currently in place, However, the VHTs are ineffective, and others are inactive due to inadequate training and poor incentives to enable them to effectively deliver the expected community-level healthcare services.

Policy intervention	Rwanda's actions	Uganda's actions
	Implementation of the human resources for health program collaborating with top US universities to train specialists and build capacity in critical areas like pediatrics, obstetrics, surgery etc over a seven-year period 2012-2019.	
Innovative use of ICT in health care	Rwanda adopted the RapidSMS model through special mobile phones given to all CHWs for use in contacting health facilities for emergency referrals. It also sends alerts for each child or maternal death and initiates a maternal and newborn death audit by the supervising health facility.	
Facility based deliveries	The current geographical access to health care services has resulted in, 90% of deliveries take place in a health facility.[47]	The current geographical access to health care facilities has resulted in 73% of deliveries take place in a health facility.[48]

Table 6: above frames the Ugandan experience as a benchmark against which to assess the relative strength of Rwanda's progress. It highlights in summary form, specific interventions and indicates the principal differentiating factor for Rwanda as the way it has incorporated homegrown initiatives and institutional arrangements to drive performance.

[47] Rwanda Demograhic Health Survey (DHS 2015)
[48] Uganda Demographic Health Survey (DHS 2016)

5.1 Conclusion

From the discussions and elaboration of the different country contexts, what needs to be done and reinforced in terms of policy interventions is self-explanatory. The main challenge remains in countries being able to find effective ways of overcoming existing barriers to implementation. Cognizant of the fact that, there is no one size fits all approach, but a careful understanding of specific country contexts increases the likelihood of implementing sustainable, high impact, well-articulated and coordinated interventions in improving maternal and child health population outcomes. This can be done, through small reforms or through incremental steps. In Uganda, as mentioned in Levy (2015), "it is important that countries looking to reform and improve the implementation of policies, should emphasise on ongoing learning in recognition that implementation inevitably will involve iterative adaptation". A notion further echoed by Holvoet and Inberg (2014:514) who opine that "small incremental changes to existing systems might be more feasible and workable instead of radical and abrupt changes which seek to impose blueprints from the outside".

In conclusion, improving health outcomes means governments taking strong, coherent and consistent action but it is also imperative that communities and individuals take responsibility. The notion of country ownership as a key driver, for developing countries to chart and accelerate their own course of development in order to overcome the challenges they face in building effective and productive states is exemplified by Ghebreyesus (2010:1127), who mentions four sequential steps. "The first is planning; countries should start with a clearly articulated vision and roadmap with strategies. Secondly, there should be a provision of resources to implement the plan through prioritisation. Thirdly, is implementation, in which countries must also be fully engaged, in cases where countries lack the capacity, they work with partners to strengthen existing in country capacities, rather than replacing them with parallel structures. The fourth step is monitoring and evaluation to track performance, accountability is key, and it depends on the ability to measure outcomes, before which clear targets should be defined. Ownership reinforces commitment, and commitment,

in turn, yields results and assures long-term sustainability". Rwanda could not have achieved such encouraging progress in the health sector without this type of genuine ownership, and the space to pursue an approach to service delivery based on health systems strengthening which led to achievement of health related MDGs.

Lastly, good governance does matter, as exemplified by Rwanda, which, notwithstanding its existential challenges much like Uganda has made significant achievements towards the attainment of MDGs. As indicated in table 6, the main differentiating feature of the Rwandan system, is the ways in which it has incorporated local incentives and home-grown solutions such as the *imihigo* including feedback mechanisms to drive performance, this is underpinned by strong political commitment, ideological clarity, a robust accountability system and the right mix of innovative evidence based policy reforms.

In conclusion, it is important to highlight as well that, in Rwanda the extent of policy execution is high and the accountability measures that go hand in hand with Rwanda's ideological clarity ensure that, there is strong accountability wherever there is a failure of execution. This is inextricably woven into home grown solutions like the *imihigo* which has become the baseline for measuring and ensuring quality and efficiency supported by functional institutional arrangements to which its population naturally relates.

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