State Effectiveness and Political Will: The Case of Malaria Control in
Uganda and Rwanda

By

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Abstract

Employing a comparative case study and using state effectiveness as a conceptual framework, this research explores malaria and its control in Uganda and Rwanda. These two neighbouring countries, which share a significant number of socio-economic characteristics, have been implementing the malaria control policies widely recommended by the World Health Organization (WHO). Despite their similarities, and the implementation of comparable malaria control policies, the two countries have experienced divergent outcomes: a reduction in malaria-related hospital admission and death rates in Rwanda, and an overall increase in malaria-related hospitalizations and deaths in Uganda during the same 2000-2015 period.

During fieldwork in both countries over the span of several months, data was collected using key informant interviews; observation at four sites; and examination of government documents. The key findings suggest that the variation in malaria policy outcomes is due largely to political factors including the role of political leaders and institutions (i.e. the Presidency, the ruling party and parliament), and not to technical factors, as most of the literature suggests. The politicization of malaria and its control in Rwanda (i.e. putting responsibility for malaria control in the hands of political leaders), and the de-politicization of malaria control in Uganda explains the divergence in malaria control outcomes.

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List of Abbreviations

ACTs	Artemisinin-based Combination Therapies
ANC	Antenatal Care
BCC	Behaviour Change Communication
CDC	Centre for Disease Control
CBHI	Community-Based Health Insurance
DAPF	Development Assessment Performance Framework
DDT	Dichlorodiphenyltrichloroethane
DFID	Department for International Development
DHS	Demographic Health Survey
DPCG	Development Partners Coordination Group
DPM	Development Partners Meeting
DPR	Development Partners' Retreat
ECA	Economic Commission for Africa
EIU	Economic Intelligence Unit
EPI	Expanded Program on Immunization
GMAP	Global Malaria Action Plan
GoU	Government of Uganda
GoR	Government of Rwanda
HMIS	Health Management Information System
HRH	Human Resource for Health
HSWG	Health Sector Working Group
iCCM	integrated Community Case Management
IMF	International Monetary Fund
IMR	Infant Mortality Rate

JADFs	Joint Action Development Forums
IPTp	Intermittent Preventive Treatment in Pregnancy
IRS	Indoor Residual Spraying
ITNs	Insecticide Treated Nets
KY	Kabaka Yekka
LLINs	Long Lasting Treated Nets
MDGs	Millennium Development Goals
MMR	Maternal Mortality Rate
MPAC	Malaria Policy Advisory Committee
NGOs	Non-governmental Organizations
NMCP	National Malaria Control Program
NRC	National Resistance Council
NRM	National Resistance Movement
OECD	The Organization for Economic Coordination and Development
PARMEHUTU	Party of the Hutu Emancipation Movement
PMI	President's Malaria Initiative
RBC	Rwanda Biomedical Centre
RBM	Roll Back Malaria
RPF	Rwanda Patriotic Front
RDT	Rapid Malaria Diagnostic Test
RMOH	Rwanda Ministry of Health
RMOF	Rwanda Ministry of Finance
UNAR	Rwandese National Union
TB	Tuberculosis
UCP	Uganda Congress Party

UNC	Uganda National Congress
UPC	Uganda People’s Congress
UMOH	Uganda Ministry of Health
UNDP	United Nations Development Program
UNICEF	United Nations Children’s Fund
UNHCR	United Nations High Commissioner for Refugees
USAID	United States Agency for International Development
WB	World Bank
WHA	World Health Assembly
WHO	World Health Organization

CHAPTER I

INTRODUCTION

Similar policies, different outcomes: Malaria control in Uganda and Rwanda

Malaria is a global public health problem. There are approximately 104 malaria endemic countries in the world. Eighty of these countries are struggling to control malaria; the others are in either the pre-elimination or elimination phase of malaria control (World Health Organization[WHO], 2012). The WHO (2017) estimates that there were over 216 million cases of malaria and over 445,000 deaths due to malaria in 2016. Eighty-five percent of these deaths occurred in children under five years of age. Murray and colleagues (2012) have in the past asserted that the WHO underestimates the burden of the disease. They argued in 2012 that global malaria deaths actually increased from 995,000 in 1980 to 1,238,000 in 2010, twice the number of deaths the WHO reported for the same year (Murray et al., 2012). There is a clear consensus that the burden of malaria is disproportionately high in Africa, with the continent accounting for more than 90% of all cases (Breman et al., 2004, WHO, 2017). The social and economic toll of malaria in Africa is substantial. As Gallup and Sachs (2001) have argued, malaria increases poverty because it reduces productivity and economic growth. Kokwaro (2009) estimates that malaria costs African countries more than US\$12 billion every year in direct expenses alone: that includes expenditures on prevention, control, and treatment of the disease paid for by individuals and their families, and from the public purse.

This research focuses on malaria and its control in two malaria-endemic countries in sub-Saharan Africa (SSA), Uganda and Rwanda. These neighbouring countries share a significant number of socio-economic characteristics, allowing them to be classified by comparativists as similar countries. For the last two decades, both countries have been

implementing policies recommended by the World Health Organization (WHO) to all countries striving to control malaria. Despite their similarities, and the implementation of comparable policies, these countries have experienced divergent outcomes: a reduction in malaria-related hospital admission and death rates in Rwanda, and an increase in malaria-related hospitalizations and deaths in Uganda during the same 2000-2015 period. There were spikes in malaria mortality and morbidity rates in both countries during that time, as will be discussed in the following pages, but overall malaria mortality and morbidity rates remained higher in Uganda than in Rwanda for the time period under examination.

Research problem and Question

The Western powers, the World Health Organization, and leaders of the malaria endemic countries were alarmed by the increasing burden of malaria in Africa in the 1980s and early 1990s,¹ leading to a renewed commitment on the part of the international development community and African leaders to control the disease. In 1992, national policy-makers from malaria-endemic African countries met in Amsterdam to discuss the burden of the disease (Nchinda, 1998). Momentum increased slowly but steadily until African heads of state pledged to make tackling malaria a major priority in the Harare Declaration of 1997. Moreover, when Gro Harlem Brundtland was elected as the WHO Director General in 1998, she declared that malaria would be one of her key priority areas, unveiling a new initiative, “Roll Back Malaria” (RBM), to support the African efforts. The goal of the new initiative was “to approach malaria in a new way” and to reduce malaria-related deaths by 50% by 2010 (WHO, 2011).

Following the WHO’s prioritization of malaria at the 1998 G8 Summit in Birmingham, United Kingdom, G8 leaders declared their support for the new RBM initiative.

¹ During this period, it is estimated that the number of malaria deaths and cases globally reached between 1.5 and 2.7 million and between 300 and 500 million annually respectively (Trigg and Kondrachine, 1998). Chapter three provides a historical account of the burden of malaria and international and national response.

As a result, in November 1998 the RBM Partnership including the WHO, the World Bank, and United Nations Children's Fund (UNICEF) was officially launched (Yamey, 2004). Building on that momentum, at the African summit on RBM held in Abuja, Nigeria in 2000, African leaders also endorsed the RBM initiative. Forty four malaria-endemic African countries, including Uganda and Rwanda, attended the summit and supported the target of reducing malaria-related deaths by half by 2010 (Snow & Marsh, 2010). The 2000 G8 Summit in Okinawa, Japan, also pledged monetary support for the goals of the RBM initiative.

Key malaria control interventions stipulated in the RBM plan included the use of Insecticide Treated Nets (ITNs), Indoor Residual Spraying (IRS), environmental management where feasible and effective (e.g draining stagnant water to eliminate mosquito breeding grounds and reduce the mosquito population), uncomplicated malaria case management with artemisinin-based combination therapies (ACTs), and the treatment and prevention of malaria during pregnancy with Intermittent Preventive Treatment in Pregnancy (IPTp) (WHO, 2011). These strategies have evolved over time. In the 1950s, the principal vector control method was the spraying of houses with residual insecticide, specifically dichlorodiphenyltrichloroethane (DDT). Its inclusion in the RBM protocol was not a surprise, since its effectiveness led to the eradication of malaria in many countries, particularly in the West. However, in the late 1980s and 1990s the vector control strategy shifted when a number of studies showed that insecticide treated nets are effective in controlling malaria vectors, prompting the use of ITNs as the principal strategy under a new initiative (Lengeler, 1998; Coleman, Goodman & Mills, 1999). By 2007, the WHO had issued an official position statement supporting the use of Long Lasting Treated Nets (LLINs) alone.

In terms of treatment, ACTs replaced chloroquine as the first line of treatment when the parasite developed resistance to the latter drug. Initially, the use and production of ACTs

in China and other places was not controlled, raising concerns that the parasite would again develop resistance and prompting the WHO to provide recommendations on the use of ACTs in 1993, 1997, and 1998 (WHO, 1998). ACTs remain highly effective treatments, although some resistance has been reported in South-East Asia (WHO, 2015). The WHO continuously updates elements of these policies and produces up-to-date guidelines.

RBM also recommended IPTp, after randomized control trials in sub-Saharan Africa (e.g in the Kilifi district of Kenya) in the late 1990s showed that IPTp is effective in preventing malaria and anemia in pregnancy, leading the WHO to recommend this intervention in the early 2000s (Shulman et.al, 1999).

Both Uganda and Rwanda adopted these interventions as their national malaria control policies. Both countries received significant resources (see chapter five) and technical help from donors and the WHO to support their implementation (WHO, 2012). The following graphs (figure 1) show when these policies were adopted in each country.

Figure 1: Malaria control policies and when they were adopted in Uganda and Rwanda

Uganda				Rwanda			
II. Intervention policies and strategies				II. Intervention policies and strategies			
Intervention	WHO-recommended policies/strategies	Yes/ No	Year adopted	Intervention	WHO-recommended policies/strategies	Yes/ No	Year adopted
ITN/LLIN	ITNs/LLINs distributed free of charge	Yes	2006	ITN/LLIN	ITNs/LLINs distributed free of charge	Yes	2004
	ITNs/LLINs distributed to all age groups	No	–		ITNs/LLINs distributed to all age groups	No	–
IRS	IRS is recommended	Yes	2005	IRS	IRS is recommended	Yes	2009
	DDT is used for IRS	No	–		DDT is used for IRS	No	–
IPT	IPT used to prevent malaria during pregnancy	Yes	2000	IPT	IPT used to prevent malaria during pregnancy	No	–
Case management	Patients of all ages should receive diagnostic test	Yes	1997	Case management	Patients of all ages should receive diagnostic test	Yes	2009
	RDTs used at community level	Yes	–		RDTs used at community level	Yes	2008
	ACT is free for all ages in public sector	Yes	2006		ACT is free for all ages in public sector	No	–
	Pre-referral treatment with recommended medicines	Yes	2002		Pre-referral treatment with recommended medicines	Yes	2007
	Marketing authorization for all oral artemisinin-based monotherapies withdrawn	Yes	2005		Marketing authorization for all oral artemisinin-based monotherapies withdrawn	No	–

Source: WHO (2012)

Rwanda and Uganda adopted these interventions at a time when the burden of malaria was very high in both countries. In Uganda, in 1995, over 1.4 million cases of malaria were reported (Kiwanuka, 2003). In Rwanda, malaria was the primary cause of morbidity and mortality from the early 1960s to the mid-2000s (Rwanda Ministry of Health [RMOH], 2008). For example, records of outpatient attendance in the 1990s indicate that malaria accounted for over 50% of visits to health facilities in Rwanda (RMOH, 2008). In the early 2000s the burden of malaria was higher in Rwanda than in Uganda (i.e. before the scale up of interventions in both countries). In 2001, Rwanda had approximately 6000 cases per 100,000 population compared to Uganda which had an estimated 4000 cases per 100,000 (WHO, 2012). In 2006, while Rwanda had 45 deaths and 1700 hospital admissions per 100,000, Uganda had 20 deaths and 1000 hospital admissions per 100,000 (WHO, 2012). The economic toll of the disease was also significant in both countries. In Rwanda, for example, a study in the early 1990s indicated that the money spent on treatment (direct cost) and the cost of lost production due to malaria-related illness was equal to as much as 2.4 percent of its GDP (Ettling & Shepard, 1991). Similarly, it was estimated that Uganda lost about US\$50 million of GDP in 2003 alone due to malaria morbidity (Orem et.al, 2012).

Although the two countries have adopted similar malaria control intervention policies and strategies, the outcomes of those policies following the scale up of malaria control

Figure 2: Malaria admissions, cases, and deaths in Uganda and Rwanda

Source: WHO (2012)

interventions have differed significantly (see figure 2). The graphs below show that the divergence occurred soon after the countries adopted the scaled up policies. In Uganda, malaria admission cases and deaths increased between 2000 and 2010 and, although the numbers fluctuated between 2010 and 2015, the number of admission cases was higher in 2015 than it was in 2000. In 2010, the disease was responsible for between 9 and 14% of inpatient deaths (Uganda Ministry of Health [UMOH], Health Systems 20/20 & Makerere University School of Public Health, 2011; WHO, 2012).

Both the WHO and independent studies affirm that between 1999 and 2009 in Uganda, hospitalization due to malaria increased between 47% and 350%, depending on the region. Malaria accounts for 50% of the outpatient burden and 35% of inpatient admissions to Ugandan hospitals (WHO, 2012; Okiro et al, 2011; UMOH, Health Systems 20/20, and Makerere University School of Public Health, 2011; WHO, 2011). It remains the leading cause of mortality in Uganda, killing between 70,000 and 100,000 children under the age of 5 annually (UMOH, n.d; UMOH, Health Systems 20/20, and Makerere University School of Public Health, 2011). Between 2000 and 2010 (see figure 3), malaria deaths increased by approximately 50% in Uganda (WHO, 2011). In contrast, Rwanda's achievement since 2000 in controlling malaria with similar policies has been significant, despite spikes in the number of cases in 2009² and again between 2011 and 2012 (WHO, 2012). According to the WHO, "the number of confirmed malaria cases among outpatients of all ages decreased by 75% between 2000 and 2010, cases among inpatients of all ages decreased by 65 %, and malaria deaths fell by 55%" (WHO, 2012). This dramatic divergence in outcomes occurred in similar

² The spike in malaria cases in Rwanda in 2009 has been attributed to low coverage of ITN (Karema et.al 2012). The reasons for the spikes between 2012-2014 are not very clear yet but there is evidence that sub-optimal nets were distributed during this period and climate change has been blamed (see details in chapter 4). The general literature indicates that complacency can also play a role in an increase of cases after successful control of malaria. The literature also points to situations where improved surveillance and detection of cases can be a cause, although that is probably not the case in Rwanda since the rates went down after improved ITN coverage.

countries which adopted and implemented the same malaria control policies following the scale up of malaria control interventions (Karema et al., 2012; Yeka et al., 2012).

Figure 3: Admissions and deaths for countries in WHO's South East Sub-region

d) Percentage decrease in admissions and deaths, 2000–2010

Given the human and economic cost of malaria, as well as the hundreds of millions of dollars spent on controlling the disease in the two countries (see chapters 3 and 4 for figures), it is necessary to understand the factors that might be responsible for such significant variation in intervention outcomes in these two countries. My research will focus on malaria control, analyzing the period between 2000, when the RBM initiative was launched and both countries endorsed the initiative in Abuja, and 2015, sufficient time to have achieved some of the policy objectives.³ Two of the main reasons for examining this period in particular are that malaria control interventions were scaled up in both countries during this time, and that WHO data is available for both countries covering this period. The research question is: Why was Rwanda more effective in achieving its stated malaria control policy objectives than Uganda?

³ Sabatier suggests that “a decade or more” is the minimum duration of most policy cycles, from emergence of the problem through sufficient experience with implementation to render a ‘reasonably fair evaluation’ of impact” (cited in Walt et al., 2008, p.313).

Argument

There is commonly accepted notion that medical solutions that are generated through advancements in biomedical science necessarily result in improved health outcomes. I argue that, contrary to this notion, medical and public health solutions do not lead to improvements in health outcomes, particularly malaria control outcomes, without a political base to translate those solutions into actions. A political base exists, as would be demonstrated in the case of Rwanda, when there is political will at the leadership level, up to and including the head of the executive, to define and address public health problems such as malaria, and when this political will is supported by institutional infrastructure that can deliver on the leadership's commitment. An institutional infrastructure can deliver when capacities, which are available but often scattered, are mobilized- by the political leaders- for the deliberate purpose of reducing the burden of diseases such as malaria, and when accountability mechanisms are in place to ensure the institutional infrastructure delivers. While a political base for controlling malaria existed in Rwanda for the 2000-2017 period, it was absent in Uganda for the same period.

The variation in malaria policy outcomes is therefore largely due to political factors including the role of political leaders and institutions (i.e. the presidencies, the ruling parties and parliaments of the two countries) in combatting malaria, and not technical or financial factors, as most of the literature, which de-politicizes malaria control, suggests. Depoliticizing malaria control, in Ferguson's 'anti-politics machine' language, reduces policy problems with significant political dimension, to mere technical issues that can be addressed with ready-made technical remedies. In Uganda, malaria is treated as a technical matter in the

sense that it is left to the medical profession and the health system to deal with, whereas in Rwanda malaria and its control is purposefully politicized in that political actors, such as the executive led by the President, play an important role in combatting the disease: from awareness creation and resource mobilization to the dismissal of ineffective malaria control officers and politically induced collaboration between various state institutions at national and local levels.

The empirical evidence discussed in chapters 5, 6, and 7 shows that the purposeful politicization of malaria and its control in Rwanda, which in our context means putting responsibility for malaria control in the hands of political leaders who support and hold health care professionals accountable for achieving locally and nationally set malaria control targets, and the de-politicization of malaria control in Uganda, is responsible for the divergence in malaria control outcomes.

Rwanda's malaria control programming is politicized because political actors such as mayors are held directly accountable for meeting malaria control targets set by district and national officials. Local leaders responsible for meeting malaria control targets enter into a performance contract with the President himself. Such purposeful politicization is absent in Uganda, where malaria control is medicalized and responsibility for combatting malaria is not shared between political/administrative structures and health professionals, leading to relatively less effectiveness in controlling malaria in the country.

Additionally, an analysis of the overall political economies of Uganda and Rwanda reveals two states that have undergone complex historical and institutional evolutions which seem to have a bearing on their effectiveness in fighting malaria. Both states have been through multi-layered conflict (civil wars in the case of Uganda and genocide in the case of Rwanda). Their current governments inherited decayed economies, divided societies, and destroyed institutions, including depleted health systems. While in both countries state-

building efforts have resulted in stable polities and improved economies, patronage-based politics has become a common phenomenon in Uganda (Chemouni, 2016), negatively affecting state effectiveness in achieving stated malaria control policy objectives. The Rwandan state, on the other hand, has built a political system and state bureaucracy that is goal-oriented, focused on achieving stated policy objectives, and has little tolerance for clientelism and/or corruption, improving state effectiveness in malaria control.

On a theoretical level, this research contends that political will is driving state effectiveness in malaria control in Rwanda, while its absence in Uganda is behind the state's relative ineffectiveness in malaria control. Given Uganda's stronger economy, higher literacy rate, and stronger health workforce, lack of capacity cannot explain the divergent policy outcomes. Comparatively, Uganda had by far a better health care system than Rwanda – one of the best in Africa before the conflict (1970-1986). With the end of the civil war in 1986, Uganda had almost a decade to rebuild itself before Rwanda started its own state-building efforts. The existence of political will at the highest level of political authority, including the presidency and the parliament, has enabled the Rwandan state to accomplish more in terms of malaria control, with relatively less capacity, within a shorter period of time. This thesis argues that political will is the key requirement for achieving state goals, including the stated malaria control objectives of the two countries. Political will develops capacity and mobilizes internal and external resources toward a stated objective. This thesis also asserts that with political will, the state can earn autonomy from powerful internal and/or external actors who might stand in the way of controlling malaria.

Approaches to understanding malaria and its control

To understand the factors that could be responsible for the variation in the outcomes of malaria policy implementation in Uganda and Rwanda, we need to consider key

determinants of the burden of malaria. There are three possible approaches to examining or explaining these key factors: a biomedical approach would explain the variation in outcomes in terms of factors such as endemicity and the epidemiological profiles of the two countries; a socio-economic approach would explain the divergence in terms of differences in the socio-economic situations of the two countries; a behavioural/cultural approach would explain the variation in terms of differences in the behavioural norms and cultural beliefs of the two populations. In the following sections, I will discuss how these approaches have dominated the study of malaria and its control, while overlooking the role of politics. In the final section I will propose a political approach to understanding the variation in malaria control policy outcomes in Uganda and Rwanda.

The biomedical science approach to malaria and its control

Malaria, a disease that has killed more people than any other disease in history has, unsurprisingly, attracted enormous scholarship. In the 1950s and 60s, most of the research on malaria focused on ‘detecting and eliminating’ malarial infection, informing the WHO’s policy on the eradication of malaria (Wessen, 1986, Carpenter, Pearson, Mitchell, & Oaks Jr, 1991). The impetus for such optimism came out of advances in science and technology that led to the discovery of DDT and chloroquine to prevent and treat malaria respectively (Wessen, 1986, Stapleton, 2004). The focus, therefore, was on deploying these great biomedical and technological innovations to wipe out malarial infection across the world. During this period, medical scientists dominated the discourse on malaria control (Stapleton, 2004). For example, almost all of the 24 participants in the WHO-sponsored Malaria Conference in Equatorial Africa held in Kampala in 1950 were ‘distinguished medical scientists’, as the WHO Deputy Director at the time acknowledged in his opening remarks (WHO, 1951).

After World War II, the field of epidemiology gained prominence and its application to a wide range of diseases including malaria grew, signalling a subtle shift from a basic medical science approach to malaria control to a public health approach (Centre for Disease Control [CDC], 2013). Between 1950 and 1990, “research into the epidemiology of malaria as a disease [stagnated] in favour of approaches that concentrated on the epidemiological basis for eradication” (Snow, Marsh, and le Sueur, 1996, p. 455). Following the WHO’s decision to abandon the eradication campaign in 1969 (for reasons discussed below), the world experienced an unprecedented increase in malaria cases. Calls for a better understanding of the epidemiology of the disease, and for research to explain variations in the incidence of malaria and of malaria control outcomes were ongoing between 1969 and 1990 (Snow, Marsh, and le Sueur, 1996). The focus on medical science and the epidemiology of malaria persisted.

In 1986, the WHO introduced the concept of stratification, recommending that malaria control strategies be based on epidemiological zones (WHO, 1986). This approach to malaria control was refined when the WHO’s ‘Division for the Control of Tropical Diseases’ and the Institute of Medicine’s ‘Committee on Malaria Prevention and Control’ developed the paradigm approach, another epidemiologically-informed strategy, that categorized malaria into different types (malaria of the African savannah; forest malaria; malaria associated with irrigated agriculture; highland fringe malaria; desert fringe and oasis malaria; urban malaria; plains malaria associated with traditional agriculture; and seashore malaria), and recommended control strategies for each type based on the characteristics of the principle vector and the population effected, level of transmission, and ecology (Carpenter et al., 1991). This period, and the first decade of the 21st century, also saw the development of new tools: insecticide-treated mosquito nets (ITNs), artemisinin-based combination therapies (ACTs), and a rapid malaria diagnostic test (RDT) (WHO, 2011).

While there is wide consensus on the efficacy of these tools, mortality and morbidity rates continued to rise in the 1990s, leading to the realization that breakthroughs in biomedicine and technology did not translate into the expected gains (Mwenesi, 2005). The answer to better control of malaria, therefore, had to be sought outside biomedical science and technological innovation. It was argued that “modern epidemiology, with its advanced methodology and orientation towards molecular, genetic, and metabolic sciences, ha[d] lost sight of the social-historical causes of disease in populations” (Kaplan, 1998, p. 1627). As Mwenesi (2005) put it:

It became apparent that good insecticides to control mosquitos and great drugs to combat the parasite would be rendered ineffective if the same vigor to understand the mosquito and the parasite was not similarly applied to understanding human behaviour and the social, economic, political and health systems contexts in which such behaviour occurs. (p. 293)

These concerns triggered research into what the social sciences could contribute to malaria control with particular focus on two areas: the socio-economic determinants of malaria; and behavioural and cultural aspects of malaria and its control. Politics as a potential factor continued to be neglected during the late 1980s and early 1990s.

The socio-economic approach to malaria and its control

The serious consideration of socio-economic determinants of malaria was prompted by the apparent link between the socio-economic situation of a given population and the burden of malaria it seemed to bear (Kaplan, 1998, Stratton et al., 2008). Scholars made the case that “global patterns of malaria morbidity and mortality are neither randomly occurring nor predominantly due to biological susceptibility, but are broadly symptomatic of underlying disparities in the allocation of local and global resources” (Stratton et al., 2008, p. 855; Lucas & McMichael, 2005). The WHO’s 1995 World Health Report (WHR) “identified poverty as the greatest cause of suffering” whereas the 1998 WHR “concluded that the

world's greatest risk factor for diseases," including malaria, was poverty. Most malaria-related morbidity and mortality occur in areas stricken by poverty such as Sub-Saharan Africa (WHO, 1995; WHO, 1998; Lucas & McMichael, 2005). The thesis that "mortality is an indicator of economic success and failure," gained currency in the literature on disease control in the late 1990s (Sen, 1998; Heggenhougen, Hackethal, & Vivek, 2003).

The link between poverty and malaria is widely recognized, but there is no consensus on the directionality of the relationship (Heggenhougen et al., 2003). Heggenhougen and colleagues (2003) argue that "the larger issues of poverty and inequality must be addressed if we are to be taken seriously in our quest to tackle malaria. But, malaria morbidity and mortality lead to poverty" (p.2). At first glance, the direction of the relationship might not matter, as tackling both poverty and disease should be policy priorities for every country. It gets trickier when certain initiatives aimed at decreasing poverty lead to an increase in malaria mortality and morbidity, as is the case in many malaria endemic countries in the developing world (Inhorn and Brown, 1997, WHO, 2003, Stratton et al., 2008). In the words of Inhorn & Brown (1990) "development projects [like] dam construction, land reclamation, road construction, and resettlement in Third World countries have probably done more to spread diseases such as trypanosomiasis, schistosomiasis and malaria than any other single factor" (p. 97).

Like the ecological consequences of development, the impact of poverty reduction strategies and economic reforms can also be negative if not well thought through. A case in point is the link between the Structural Adjustment Policies (SAPs) and malaria. Stratton and colleagues (2008) argue that:

rising malaria rates in sub-Saharan Africa throughout the late 20th century could be attributed to structural adjustment reforms: the devolution of the health sector led to a greater individual responsibility for malaria treatment and follow-up; rising income disparity and greater absolute poverty reinforced the tendency to self-medicate, while rising health care costs delayed treatment-seeking for serious cases of malaria; economic deprivation led to environmental degradation and diverted the resources

necessary to address environmental risk factors for malaria; and worsening women's health, resulting from the uneven allocation of household resources in scarce times, worsened child and infant health. (p. 858)

Similarly, Manfredi (1999) postulates that the increased number of malaria cases in Africa might be the result of 'socio-economic hardships' that resulted from structural adjustment programs. In Central America, Garfield (1999) argues that the malaria epidemic Nicaragua experienced in the 1990s can be partly attributed to the macroeconomic adjustment program that was implemented in the 1990s. In China, Kidson and Indaratna (1998) asserts that "the current love affair with free market economics as the main driving force for the advance of national wealth puts severe limitations on the essential involvement of communities in malaria management" (p. 39).

Equitable economic growth and improved income could allow individuals and households to spend more on the prevention and treatment of malaria and also lead to greater state investment in public health facilities and malaria control programs (Datta and Reimer, 2013). However, there is no empirical evidence that explains the variation in malaria control policy outcomes in African countries south of the Sahara solely in terms of their economic standing. Chizema-Kawesha and colleagues (2010) looked at Zambia's success in malaria control and concluded that although there was some concurrent improvement in the socio-economic situation of the country it was not sufficient to account for the success of malaria control; they write that "socioeconomic improvements occur in many countries but are not likely to explain the dramatic reduction in childhood mortality" (p.12). Eritrea, dubbed Africa's malaria control success story, has experienced economic deterioration for the last ten years (Müller, 2012). Conversely, Uganda, which experienced an increase in malaria cases and deaths over the past decade and a half, has achieved more than seven percent economic growth over the same period, well above the sub-Saharan Africa average and surpassing even the MDG's target for poverty reduction (Ssewanyana, Matovu, & Twimukye, 2011).

The behavioural/cultural approach to malaria and its control

The malaria control tools discussed above were developed for people to use. For these tools to be effective, making them nominally available is not enough: people have to use them. They have to sleep under the ITNs to protect themselves, they have to accept health workers pricking their fingers for blood tests to diagnose infection, they have to let their houses be sprayed, they have to take anti-malarial drugs to treat the illness; and in doing all these things, sometimes they have to spend money. It might then seem obvious that policy makers and public health practitioners would pay attention to the behaviour of target populations (e.g. whether or not they use the tools, or even misuse them) and their beliefs about those tools. Surprisingly, malaria control programs implemented before the 1990s did not take the behaviour or cultural beliefs of malaria affected people into consideration, even in the face of expressed resistance (Heggenhougen et al., 2003).

In the malaria eradication era “although residents frequently denied the government spray teams entry to their homes and removed the insecticidal sprays from treated walls, their active participation was largely irrelevant to the intervention” (Heggenhougen et al., p VII). This disregard for behavioural norms and cultural beliefs frustrated Dr. Robert H Black, a renowned malaria expert, who noted:

how often one reads or hears that malaria eradication failed because the vectors become resistant to insecticides and the parasites resistant to chloroquine. This is a ‘nice scientific explanation’ that appeals to hard scientists whereas the main reasons for failure have to be sought in the soft sciences - human behaviour, politics, and economics. (1980, p. 22)

In the late 1980s and early 1990s, malaria experts began to seek answers for the failure of their eradication policies in the soft sciences, with a particular focus on behaviour and cultural beliefs (McCombie, 1996). Some of the early work of this period focused on the people’s knowledge of the disease itself (McCombie, 1996). In Liberia, Jackson (1985)

looked at the correlation between people's perceptions about contracting malaria and the results of medical diagnosis, finding a positive relationship. In Somalia, Aryan and Osman (1993), through the WHO's Social and Economic Research Project, investigated behaviours and cultural beliefs affecting malaria and its control and found that although people were able to recognize symptoms of malaria they were unable to articulate the link between the symptoms and the disease.

Several studies in Africa and Asia, where the burden of malaria was high in the 1980s and 1990s, found inadequate to moderate knowledge of malaria and malaria control methods among the population (Butrapom et al., 1995; Ettling et al., 1994; Vundule and Mharakurwa, 1996; Sharma, 1996; Mwenesi et al., 1995). Inadequate knowledge and false perceptions regarding malaria led many to reject bed nets, take herbal medicine instead of effective anti-malaria drugs, self-medicate, or share anti-malarial drugs with others. People associated malaria with the sun, and attributed symptoms of severe malaria such as convulsions to evil spirits (Ofori-Adjei et al., 1996; McCombie 1996; Ruebush et al., 1995; MacCormack et al., 1989; Agyepong and Manderson, 1999; Miller et al., 1999, Gessler et al., 1995; and Ahorlu et al., 1997).

Since the 1990s, the influence of the sociocultural approach to malaria and malaria control has grown enormously (Tarimo et al., 2000; Williams and Jones, 2004; Panter-Brick et al., 2006; Ribera et al., 2007; Atkinson et al., 2010; and Pell et al., 2011). Today, there is wide spread recognition that the knowledge, attitudes, and practices of malaria affected people should be central to malaria control efforts. Initiatives such as Roll Back Malaria (RBM) consider behaviour change communication (BCC) an essential component of their strategy to fight the disease (Mwenesi, 2005). In line with accepted international norms and the policy guidelines of the WHO, BCC has been an integral part of Uganda's and Rwanda's malaria control efforts over the last two decades (UMOH, 2014; RMOH, 2013). Recent

studies in both countries show that the two populations have considerable knowledge of malaria and how it is transmitted, prevented and treated, although knowledge gaps still exist in both countries (Ingabire et al., 2014; Kateera et al., 2015; UMOH, 2014, Ndyomugenyi et al., 2007; Njama et al., 2003).

However, cultural and behavioural explanations cannot explain the differences in outcome in the cases of Uganda and Rwanda. Not only are Uganda and Rwanda neighbours inhabited by populations that share a culture and traditions, but the same ethnic groups inhabit parts of both countries. Shared populations, culture and behaviours mean that socio-cultural factors cannot account for the disparate outcomes of their malaria control policies. I argue that to explain the difference in outcomes, we must examine the role of governments and the impact of politics on policy as discussed below.

The need for a political approach to malaria and its control

“Medicine is a social science, and politics nothing but medicine on a grand scale”
Rudolf Virchow (cited in Tylor and Reiger 1985, p. 202)

Research into the social, behavioural, cultural, and economic determinants of health and health outcomes is crucial for controlling malaria as it informs policies for tackling the disease in malaria endemic countries. The research and the policies, however, often place emphasis on *what* countries must do (e.g deploy currently available and effective malaria prevention and treatment tools, educate the public to change behaviour, tackle poverty, reform and strengthen the health system and so on) without providing guidance as to *how* to carry out or not carry out the necessary policy reforms or accounting for the influence of *actors* involved in the carrying out of policy objectives (Walt and Gilson, 1994, Mwenesi, 2005). Walt and Gilson (1994), pioneers in applying policy analysis to health studies, argue that:

much health policy wrongly focuses attention on the *content* of reform, and neglects the *actors* involved in policy reform (at the international, national and sub- national levels), the *processes* contingent on developing and implementing change and the

context within which policy is developed. Focus on policy content diverts attention from understanding the processes which explain why desired policy outcomes fail to emerge. (p.354)

There is indeed a marked absence of politics - particularly the role of political actors, power relations, and political processes - in the public health discourse (Buse, 2008). First, the answer to a public health problem such as malaria is often sought in medical science because biomedical scientists “tend to dominate the field of public-health research.” To them, “politics seems to be very shaky and risky ground, something to be avoided” (Navarro, 2008 p.354; Beaglehole et al., 2004; Gilks et al., 2006; Smith, 2013; Hofman and Vandenbroucke 1992; and Mackenbach, 2008). In the past, punitive action was taken against scholars who mixed politics and public health. The renowned German public health expert, Rudolf Virchow, was expelled from his city for arguing that the root causes of public health problems rested in politics (Navarro, 2008; Ackerknecht, 1953). Similarly, Vicente Navarro, a leading expert on the politics of health, was given ‘persona non grata’ status by the Pinochet regime in Chile and the Brezhnev government in the former Soviet Union for stating that “the root of the unhealthy state of their populations was the political nature of their regimes” (Navarro, 2008 p. 354). Second, there is a widely documented fear that politics often undermines evidence-based policy making in the health sector (Gilson et al., 2003; Buse, 2008; Smith, 2013). Third, a key bias in public health programming is the need to frame public health problems in terms suitable for technical solutions.

Political variables are given little consideration in making plans and proposals aimed at tackling malaria and other public health problems. What is common though is a nod toward the need for “government commitment”, “political will”, and “donor commitment” in order to achieve malaria control policy objectives, without a clear articulation of how such will and commitment manifests itself or could be measured or analysed. In 1993, when the world woke up to the unprecedented increase in malaria morbidity and mortality then in

progress, the WHO's global strategy for malaria control clearly stated that "the main role of the government is to ensure that effective and sustainable malaria control programs are established in all areas where the population is at risk. This will require that a political commitment is made to malaria control" (WHO, 1993, p.22). In 2000, the WHO again touched on the issue of political commitment, suggesting that at the international level, donors are wary of "entering into unlimited financial commitments" to control malaria, "preventing the consolidation of political will into sufficient political commitment to formulate national malaria control policies" (WHO, 2000, p.11). Elsewhere it is argued that political commitment is partly responsible for malaria control successes in Turkey, China, and Turkmenistan (WHO, 2011; Kidson & Indaratna 1998; Evered & Evered, 2011).

Although policy makers and researchers often acknowledge that the burden of malaria is affected by factors in the political realm, there is a dearth of literature on *how* politics affects malaria control outcomes. It is sobering to realize that of the close to 300 malaria publications in the WHO's repository, almost none are dedicated to the politics of malaria and its control. The reason for this, Navarro (2008) argues, is that "In these agencies, there is a demand for consensus that makes it very difficult to study the effects of political variables on health" (Navarro, 2008, p. 354). The lacuna is particularly evident when it comes to understanding "the interactions between international donor agencies, recipient developing country governments, and their domestic political context" (Buse, 2008, p. 163). As the work of Helen Epstein (2011, 2014), Tren & Bate (2001), and Shah (2011) has shown, studying the interactions between states in developing countries and their development partners can contribute greatly to understanding the performance of local and international systems in controlling malaria and other diseases. A political approach to the analysis of malaria and its control can fill this analytical void, potentially explaining the divergent outcomes we have

observed despite the implementation of similar malaria control strategies in all the malaria endemic states south of the Sahara, including Uganda and Rwanda.

This work will privilege political determinants because political factors are necessary to ensure the effectiveness of mechanisms to ensure social and behavioural change. Privileging political factors is also important because there has been a disproportionate focus on medical, social and cultural factors affecting malaria and malaria control. As Tanner and Savigny (2008) state, we know “about the biology of parasite-host responses, the determinants of endemicity and transmission dynamics, the social, economic and cultural implications of malaria at household, community and national levels, and the demands made upon health systems in endemic countries” (p.82). We also know that controlling and even eliminating malaria is biologically possible. In 2016, there were no fewer than 25 different malaria vaccine projects at work, 13 vector control products and 47 new medicines developed, and several next-generation diagnostic tools in the pipeline (Hemingway et al., 2016). It is high time to complement the biomedical, socio-economic, and behavioural/cultural approaches with political approaches that can help us explain how states in malaria endemic countries function and perform in relation to malaria control, why some struggle and others have more success in controlling this disease. Hence, state effectiveness in malaria control is the central focus of this study.

Analytical framework: Assessing state effectiveness

The literature examining why some states perform better than others in achieving their own stated developmental objectives is vast, making it essential to establish clear analytical boundaries for this work. This research will not consider the strain of literature that emphasizes culture-based explanations for government effectiveness. These explanations have been criticized for being “too crude to be analytically meaningful” (Chang, 2010). If culture were a significant factor in this case study, Burundi, which is inhabited by the same

ethnic groups (Hutu and Tutsi) that live in Rwanda, would have performed equally well in malaria control. Culture does not explain the state's ineffective performance (Habonimana, 2016). This research will also put aside the literature focusing on "democratic rule" as the determining factor in state effectiveness. That lens asks us to assess the state's "responsiveness to the will of the populace" (Weaver & Rockman, 1993) and not necessarily its effectiveness in achieving its own stated malaria control policy objectives. It also leads us to situate the discussion within the literature on the link between development and regime type (dictatorship or democracy), a debate which remains inconclusive (Olson, 1993; Leftwich, 2002; Goodfellow, 2012).

A more nuanced understanding of the effectiveness of the state in developing countries, and one which is more relevant to this research, takes us to the state-centered institutionalist and developmental state scholarship associated with Skocpol (1979,1985), Nordlinger (1981), Evans (1985, 1989, 1999, 2014), Wade (1990), Amsden (1989, 2007), Mann (1986), Samatar (1999, 2002), and Mkandawire (2001, 2015) to name a few key scholars. In this literature, three conceptual variables are assessed to explain the effectiveness of the state: State autonomy, state capacity, and political will.

State autonomy exists when the state "translates its policy preferences into authoritative actions" (Nordlinger, 1981). State-centric scholarship asserts that the state should be taken seriously as an institution that pursues its own policy objectives even if those objectives are not in line with the objectives of powerful societal groups and structures (Jessop, 2001). Hence, the state's "authoritative actions" are not determined by the functional requirements of powerful groups in society (Jessop, 2001). In this conceptualization, the state also formulate[s] and pursue[s] goals that are not simply reflective of the interests and policies of external actors such as other states or donors in the context of aid-dependent countries in Africa (Skocpol, 1979, Skocpol, 1985).

While the state needs to be autonomous from both powerful internal and external actors in formulating and pursuing its own policy goals, it is critical that it has the capacity to achieve those goals. As noted by Öniş (1991), state capacity is the ‘institutional base’ that enables states to implement official state goals. Without institutions and administrative structures equipped with human and financial resources that can be deployed to achieve state objectives, the pursuit of state goals will remain an intention in state policy papers (Peters, 1996; Skocpol, 1985). Hence, states need to create administrative arrangements that translate policy objectives into day-to-day activities undertaken in a manner that generates expected results (Peters, 1996).

Finally, exercising autonomy and building and mobilizing capacity to pursue state goals is largely determined by the political will of state leaders and managers (Leftwich, 1995; Skocpol 1985; Wade 1990). The developmental state literature considers the leaders, whose will is crucial for the state to be effective in achieving its own goals, to be a “small cadre of developmentally-determined senior politicians and bureaucrats, usually close to the executive head of government who [are] instrumental in establishing the developmental regime and its culture” (Leftwich, 1995, p. 405). The relevance of these conceptual variables for this research as well as their interconnections and their weaknesses will be further discussed in Chapter Two.

Research design and methodology

Primary research question

Given that Rwanda and Uganda have adopted similar malaria control policies, why have they experienced divergent outcomes with regard to malaria-related hospital admission and death rates?

Methodology: Comparative case study

This research will employ a comparative case study. There are two essential questions that should be addressed in this section: Why a comparative study and what is comparable? And: Why a small-N sample containing these two specific cases?

Why compare and what is comparable?

As Dogan and Pelassy (1990) put it, “comparison is the engine of knowledge” since our perception and understanding of nearly every phenomenon is guided by a reference to itself or to another phenomenon. So, comparing countries can enhance our knowledge of both countries. As the French historian, Fernand Braudel, said, “live in London for a year and you will not get to know much about England...but through comparison...you will suddenly come to understand some of the more profound and individual characteristics of France, which you did not previously understand because you knew them too well” (cited in Dogan and Pelassy, 1990, p.8).

We must also ask with Sartori (1991), what is comparable? In comparative politics, both similar countries (most similar) and different countries (most different) are compared to understand, interpret and explain the divergence and convergence of dependent and independent variables (Sartori, 1991; Seawright & Gerring 2008). Here, we employ the most-similar approach. As Seawright and Gerring (2008) explain, "in its purest form, the chosen pair of cases is similar on all the measured independent variables, except the independent variable of interest" (p. 304).

In the case of Rwanda and Uganda, as I have described in preceding sections, the countries are neighbours. Both countries are malaria endemic, landlocked, and have high population growth. They have high levels of poverty, have emerged from terrible civil wars, are highly dependent on aid, have been ruled by one party for a long period of time, and are multi-ethnic nations. There is no significant difference in their cultures, and some ethnic

groups live in both countries. Most importantly for our study, both adopted similar malaria control interventions. Given such striking similarities, we can consider the two countries to be “familial or homogenous nations” (Dogan & Plessay, 1990; Chemouni 2016). However, while using this intellectual classification may be justified, a qualification is in order: the similarity and homogeneity we are discussing here is a relative one. No countries can be classified as similar in the absolute sense of the term. In explaining such “relativity”, Dogan and Plessay (1990) state: “Viewed from afar, South American countries present a series of analogies that become much less evident when one looks at them more closely, allowing the contrasts to appear” (p. 132). Hence, a researcher needs to be careful not to be blinded by the classification of countries as similar or different. In fact, the goal of this research is to look at the two countries - Rwanda and Uganda - closely enough to see the ‘differences’ between them that may be responsible for the divergent policy outcomes. In our case, the two countries are considered similar in many aspects but are different in state effectiveness as the following analysis shows.

Why a small N case study and why Uganda and Rwanda?

Addressing generalizability and selection bias

Yin’s oft-cited book defines a case study as “an empirical inquiry that: investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident; and . . . [that] relies on multiple sources of evidence” (1994, p.13). From a methodological point of view, the number of cases (Small N or Large N) one should use to conduct a comparative analysis is contested. The proponents of large N comparative studies argue that findings from small N case studies may not provide a sufficient basis for generalization (Achen and Snidal, 1989). A closely related problem identified by these scholars is a selection bias by which the researcher might shop

for cases that fit his or her preconceived conclusions, resulting in weak generalizability (King, Keohane & Verba, 1994).

In light of these criticisms, the choice of a Small N study including specifically Uganda and Rwanda must be justified. First, unpacking the complex policy process as well as examining the mediatory role of political institutions in shaping policy outcomes is a labour-intensive inquiry. The scope of this inquiry warrants an in-depth analysis that will allow us to gain insights that would be less attainable in a large N study. Secondly, Rwanda's effectiveness in controlling malaria and building an effective health system - compared to Uganda's outcomes - within a decade and a half following a genocide that destroyed the country's health system is impressive, potentially offering a learning opportunity for Uganda and other countries. Finally, as highlighted in the previous sections, Uganda and Rwanda manifest one particular contrasting feature (divergent policy outcomes), a contrast that is not evident in other neighbouring sub-Saharan African countries.

That said, we should note that Rwanda's unique historical and institutional context, particularly the genocide and its implications for statebuilding in Rwanda might limit the generalizability of the Rwandan case. Indeed, the genocide, which will be discussed in detail in chapter four, created an enduring legacy and a critical juncture that led to fundamental political reorientation in which building a performing state and effective institutions became the only choice for the new political leadership led by President Paul Kagame. The space generated by the critical juncture to a degree allowed the new Rwandan leadership to not only create effective state institutions but also to undertake social reengineering that emboldens the autonomy of the state in relation to other actors in society to date, limiting the extension of the findings from the Rwandan case to Uganda and other African countries.

Data collection and analysis

The main research methods deployed to collect data include key informant interviews; participant observation at four sites; and examination of government documents. The method of key informant interviews is utilized when deeper insight into a phenomenon can be achieved through identifying and interviewing key individuals who can provide that insight because of their association with, involvement in, or knowledge of the phenomenon under study (Marshall, 1996). As Patton (2002) indicates, key informants help the researcher understand “what is happening and why”. The rationale for using key informant interviews for this particular research is the following: Information about political institutions and policymaking can be found, partly, by interviewing policy-makers and people close to them who were involved in the policy-making process; insightful and in-depth information can be gathered by interviewing policy-makers and other actors such as international development partners, non-governmental organizations, academics and bureaucrats at different levels of government involved in the analysis and implementation of policies; and given the sensitivities of policy-making, policy makers may not be willing to participate in focus group discussions and may prefer to have one-on-one interviews with the researcher.

The key informants were selected through stratified, purposeful, and snowball methods in order to generate a wide range of perspectives. Using these methods, participants were identified in two ways. First, individuals mentioned in the literature as key people in the formulation, implementation, funding and analysis of malaria control policies in Rwanda and Uganda were approached as participants. Secondly, in cases where institutions were mentioned, key individuals within those institutions involved in malaria control were selected for interviews. A total of 45 key informants, drawn from both countries, were interviewed. In Rwanda, 21 interviews included the Presidency, Ministry of Health, National Malaria Control Program, Local Government, Ministry of Finance, health centres, Community Health

Workers, Police, United States Agency for International Development (USAID), the UK Department for International Development (DFID), WHO, ABT Associates (private contractor), Population Services International, Adam Smith International, and experts. In Uganda, a further 24 key informants were interviewed from the Ministry of Health, National Malaria Control Program, Local Government, Ministry of Finance, health centres, Village Health Teams, USAID, DFID, WHO, United Nations High Commissioner for Refugees (UNHCR), AMREF Health Africa, Malaria Consortium, and experts.

In terms of the characteristics of participants, the interviewees represented a good mix of both genders, although short of equal representation of male and female participants: one third of the total interviewees (45) were female and two third of them were male. In terms of state and non-state actor affiliation, twenty-six of the participants were from the public sector at local and national levels. Public servants ranged from community health workers and village health teams to members of parliament and Ministers. Participants from non-state actors included NGO workers, donor representatives at the level of country directors and diplomats. The level of education of participants ranged from intermediate school (community health workers in Rwanda) to experts and academics with doctors of philosophy.

Although most of the interviews were conducted in the capital cities of the two countries, four specific field sites (Tororo and Gulu in Uganda, and Kirehe and Rwamagana in Rwanda) were also visited to collect data and interview local officials on the implementation of malaria control policies in the two countries. It should be noted that the selection of field sites was partly informed by accessibility, the high burden of malaria in the four sites, and the ongoing outbreak of malaria in Gulu and Kirehe at the time of the data collection, which created an opportunity to observe how the two countries responded to the epidemic.

The interviewees are anonymized to honor confidentiality, as per the consent form signed by study participants and given sensitivities around malaria control policy success and failure. The interviews were mostly conducted face-to face, but some of them were held over the telephone or via Skype or WhatsApp when the interviewees were not available for a face-to-face interview. The interviews took place over a span of four years (2013-2017) and several trips to both countries. The main data collection phase occurred between May and November, 2016. The interviews were semi-structured. This allowed me to adjust the register of language and vocabulary and to ask different probing questions that helped me elicit various perspectives from interviewees. For example, some of the questions designed to elicit information from malaria experts were made more general following the realization that some of them had less knowledge about specific in-country challenges such as malaria drug stock shortages in specific districts than originally anticipated.

Through this research I also found that conducting interviews about policy outcomes can be challenging (even when they are health-related outcomes and might seem to be less politically sensitive). Although I travelled to both countries prior to the field research in order to assess the research environment, and had letters of support and introduction from universities and the governments in both countries, some challenges were faced in the field when government officials became reluctant to be interviewed (some at first interview and others at the second), or were not willing to speak to specific issues, such as the challenges they faced in fighting malaria, or only wanted to have off-the-record conversations. Climate change was one factor some government officials were willing to cite as a challenge to their work or as a reason for spikes in malaria cases. The interviews with non-government officials, experts, and academics, as well as my observations and the documents reviewed fleshed out the challenges the two countries faced in controlling malaria. In cases where the challenge of obtaining information persisted, the gap is clearly acknowledged in the text.

Finally, field-based observations were carried out in order to gain a strong understanding of how malaria control policies are implemented. Field-based observations are usually associated with research in other social science disciplines such as psychology and sociology, but observation can also be a useful tool for policy research (Dergie, 1998). As Patton (2002) suggests, direct observation allows the researcher to obtain insights that interviewees may not be willing to provide; it helps the inquirer to deduce nuances from the routines that those involved in the work do not pay attention to; and, firsthand experience gained from interacting with the people, observing the setting, and watching activities helps the researcher to develop informed “impressions” that would be difficult to form solely through interviews. It must be noted that despite the strengths of this research method, there is some controversy related to the role of the researcher (participant or non-participant) and the informed consent of research subjects (Mulhall, 2003).

Two major observations were carried out during the field research. In the first observation, the researcher participated (as an observer) in a stakeholder conference for the response to an outbreak of malaria in Northern Uganda. In the second observation, the researcher participated in a workshop on the IRS campaign launched in Eastern Rwanda to respond to a malaria outbreak in that region. Both experiences created opportunities to observe closely the interaction between malaria control program officials from the center and the districts, as well as NGOs and donors. In both settings, the outbreak as well as response plans were discussed and debated, although the intensity of the debate was much higher in Uganda than Rwanda as will be discussed in later chapters.

Additionally, data was triangulated by reviewing primary and secondary documents to better understand factors that could explain the variation in the malaria policy outcomes of the two countries. Documents included in this analysis include reports on health systems (e.g. Uganda Health Assessment 2011, and Rwanda Health Governance Assessment 2010) and

malaria and its control in both countries, malaria control strategies and policies (e.g President's Malaria Initiative operation plans for both countries for the 2000-2015 period), malaria control program proposals, guidelines, books, articles, press statements, minutes of meetings, and aid agreements. These documents provided insights into the historical, political, social, economic and personal dimensions of the two countries in confronting malaria.

The data was analyzed using content analysis. Content analysis is “any technique for making inferences by systematically and objectively identifying special characteristics of messages” (Holsti, 1968, quoted in Berg, 2004, p. 267). Strauss and Corbin (1990), who use the terms analysis and coding interchangeably, define analysis as the “operations by which data are broken down, conceptualized, and put back together in new ways” (p. 57). Researchers systematically code, condense, and create categories from the responses of the interviewees (Berg, 2004.) It involves a process of listening and re-listening to recorded interviews, and reading and re-reading transcripts, noting repetitions and emerging themes, and then creating categories and coding in a systematic manner. A major goal of codifying and categorizing is to find themes that - as Graneheim and Lundman (2004) aptly put it – “link the underlying meanings together in categories” (p.107). This process was partly informed by the analytical categories that emerged from the literature. The coding and categorization exercise was augmented with memos that captured the researcher's observations, interpretations, and contextualization in relation to emerging themes, and analytical categories throughout the research process. Content analysis is widely used in analyzing interview transcripts in qualitative research, which makes it relevant for analysing the data collected in this research (Burnard, 1991).

Although the data collected through these methods was rich, I should note that some challenges were faced during the data collection, particularly in Rwanda. One major

challenge was reluctance on the part of some Rwandan officials to participate in this research. One government official, for example, refused to be interviewed for this research and advised me not to approach others for interviews while the country is facing challenges in controlling malaria. I also found that some civil servants were protective of Rwanda's image such that the stakes for participation in the research (and thereby acknowledging the depth of Rwanda's malaria problem) seemed higher for Rwanda than for Ugandan participants. In one instance, a key Rwandan official declined to share minutes of an important meeting about malaria control. While the restrictions and challenges eliciting information faced in Rwanda did not have a major impact on the overall research findings because data could be triangulated from other sources, it was clear that some officials did not want to deviate from the official line which tended to exaggerate the government's performance in controlling the disease. A more important limitation to this study is the difficulty of analyzing malaria and its control given that record keeping at the health facility level is often incomplete. This was particularly true in Uganda where the health management information system is weak. Incomplete records might affect the accuracy of the data on malaria mortality and morbidity rates that we have analysed, a problem acknowledged by the WHO annual malaria reports.

Contributions of the research

The contributions of this research are twofold: theoretical and practical. Theoretically, this research attempted to redirect the study of malaria and its control from its present concentration on biomedical science, socio-economic factors, and behavioural and cultural considerations, to a focus on political realities and context. This research agenda contributes to the literature on state effectiveness, with particular focus on how state autonomy, capacity, and political will contribute to the effectiveness of the African state. In so doing, the study addresses the blind spot in our understanding of how much political and government

institutions matter in the context of the less developed countries in Sub-Saharan Africa, particularly in areas that are often considered apolitical, such as public health. This study contributes to understanding not only the significance of the state but also the role of political leaders, homegrown ideas and human agency in institutional reform in sub-Saharan Africa, where autonomous space for policy development is shrinking due to increasing dependence on foreign aid.

Additionally, by examining the interaction between external actors and state institutions in two specific countries in order to describe how those interactions shape policy outcomes, I contribute to the larger development debate about whether and in what ways state institutions matter in Africa's quest for autonomy in and ownership of the process of defining and achieving social and economic development objectives. This contribution will be important to institutional reformers interested in developing the capabilities of the state to improve government effectiveness.

Practically, the proposed research addresses a very significant public health problem, malaria. Although malaria affects everyone living in malaria-endemic regions, more than any other disease it disproportionately affects children under the age of five and pregnant women. In Uganda, children accounted for about 80% of the 70,000 to 100,000 malaria deaths in 2010. Malaria in pregnancy is a threat not only to the mother but also to her baby, and, though preventable, remains the most common cause of maternal and perinatal morbidity and mortality in sub-Saharan Africa. Despite targeted interventions that have proven to be effective, including a WHO three-pronged programme for the prevention and management of malaria during pregnancy (i.e insecticide-treated nets, intermittent preventive treatment, and effective case management of malarial illness) as well as home-based care for children with fever (suspected and confirmed malaria cases), malaria continues to take the lives of hundreds of thousands of children and pregnant women every year.

This research shifts the focus from the content of malaria prevention and treatment policies to the processes, actors, and institutions that support or hinder them. This focus will shed light on innovative ways Uganda and Rwanda could adopt and implement WHO-recommended policies, as well as develop and maintain dynamic institutions that could harness the capabilities of government institutions to effectively control malaria.

Results from this research will help policy makers to understand conditions under which malaria control programs succeed and fail – and why. They will help various actors in the policy arena (both national and international) to better understand the significant role of politics and how the interaction of various actors shapes malaria policy outcomes. These new understandings can be used to devise strategies, and develop and maintain institutional arrangements that are increasingly effective in controlling malaria in these two countries and in the larger sub-Saharan Africa region. This goal aligns with Lasswell's (1971) vision of policy studies, that they should contribute to the betterment of society.

Structure of the thesis

The first chapter of this dissertation introduces the research agenda. The remainder of the thesis is structured as follows: In Chapter Two I discuss the analytical framework that will guide the analysis of state effectiveness in controlling malaria in Uganda and Rwanda. It begins with a definition of the state and its role in development and presents the perspectives of various scholars on state autonomy, state capacity and political will, three key conceptual variables that are used to explain state effectiveness. The application of the analytical framework to the research question is also laid out in this chapter, together with a full discussion of its limitations.

In Chapter Three, I will cover two key aspects of this research. I first discuss malaria as a disease and policy problem, outlining the challenges in controlling it. I then present a

chronological overview of the international policy response to malaria, situating Uganda's and Rwanda's national policy responses within the international policy context.

Chapter Four provides a 'thick' description and analysis of the historical and institutional contexts of Uganda and Rwanda considering how they might impact state effectiveness in malaria control. It is here that I will place emphasis on understanding the political economy of each of the two countries, with particular attention to the evolution of the two states and their relative effectiveness. I begin with an account of how society in Uganda and Rwanda was organized before the advent of the modern state, and then look at both states under European colonial powers, and post-independence. In both Uganda and Rwanda the post-independence state was characterized by conflict and instability. When considering the evolution of the state, I pay attention to its performance in many areas including sustaining stability, economic development, and progress in the social sector. One of the key sections in this chapter covers the legacy of the conflict on population health in both countries. The discussion then turns to understanding how each of the two states is currently constituted, and how it performs in the areas crucial for malaria control: its economic condition, tax collection capacity, level of corruption, public sector performance, and the health-care system and its performance.

Chapter Five is the first of three empirical chapters that discuss this study's findings on state effectiveness in malaria control in Uganda and Rwanda. It discusses the implementation of malaria control programs in the two countries. It presents an overview of the structures the two countries have created to combat malaria and assesses their performance. In this chapter the capacities of the two countries' malaria control programs are compared and contrasted. The chapter also considers the place of inter-sectoral collaboration in malaria control, together with the role of administrative structures, communities and health facilities in combatting malaria.

In Chapter Six, I present findings specific to state autonomy and its impact on the effectiveness of the two countries' malaria control policies. The discussion covers how the states interact with the internal and external actors involved in malaria control. A particular concern of this chapter is each state's policy independence in the face of aid dependency and how dependence on external aids impedes or fosters the state's ability to achieve stated malaria control objectives.

Chapter Seven is the final empirical chapter. It presents the discussion on the findings on the variation in political will and the role it plays in combatting malaria in the two countries.

Chapter Eight begins with a summary of the findings, situating them within the analytical framework. The second section of the chapter discusses the theoretical implications of the study findings. This is followed by a look at the policy implications of our research, particularly for policy makers and practitioners in malaria control. The final section of the chapter provides concluding remarks on the limitations of this study and gaps that need to be addressed through future research.

In summary, this thesis contends that the divergence in malaria control policy outcomes in Uganda and Rwanda has a lot to do with the different approaches to and philosophy about combatting malaria in the two countries. Stated in general terms, combatting malaria is seen as the business of health care professionals in Uganda, whereas in Rwanda combatting malaria is seen as the collective responsibility of the country's politico-administrative structures from the presidency to district officials and health care professionals. Malaria control is purposefully politicized in Rwanda in the sense that responsibility for controlling the disease rests with political leaders at both the local and national levels. Failure to deliver on this responsibility has dire consequences for both

politicians and health care professionals who must answer to the country's accountability policies and institutions. Hence, politicians are forced to work closely with and provide necessary support to the health care professionals and community health workers involved in malaria control. Such collective responsibility for combatting the disease is absent in Uganda where malaria control is medicalized and the poor performance of malaria control institutions and structures is tolerated. I will argue that this difference in accountability accounts for the divergent outcomes of Rwanda's and Uganda's malaria control efforts.

CHAPTER II

ANALYTICAL FRAMEWORK

This chapter presents an analytical framework by which state effectiveness in relation to malaria control can be assessed, and situates this discussion within the larger debate about the role of the state in development policy outcomes. The discussion begins with various conceptualizations of the state and its role in development and public health put forward by scholars, and then builds on the dialogue between these theoretical propositions to analyze the performance of the state. The second section disaggregates the state and extrapolates relevant conceptual variables in order to explain state effectiveness. I then operationalize these variables to explain state effectiveness in relation to malaria control policy outcomes specifically. In this theoretical chapter I will look into how an effective state, one characterized by autonomy and capable bureaucratic structures, can effect change when it is led by committed leaders that ensure stated policy objectives are translated into results. In essence, in this chapter we will show that the state is a key agent in the development project. We will also show that the power and influence donors have over aid recipient countries; the ability of recipient countries to use aid to achieve their own developmental objectives has implications for the effectiveness of the state. In this chapter we will also argue that the state needs not just to build structures and institutions for addressing policy problems, but to ensure those structures deliver on their mandates. We will argue that political will at the highest level including the head of government and senior government officials is key for having such political base.

The State defined

Both left and right-leaning scholars agree that the modern state exercises sovereignty over a territory and the people that inhabit it (Skocpol, 1985; Fukuyama, 2004). That said, scholars vary in articulating the distinction between state and government. For example, Geddes (1994) equates “state” with government, or the actions of individuals on behalf of the government, whereas, in the Weberian tradition, “state” is used to refer to more than a government. In the latter conceptualization the state is considered to be “the continuous administrative, legal, bureaucratic, and coercive systems that attempt not only to structure relationships between civil society and public authority in a polity but also to structure many crucial relationships within the civil society as well” (Stepan, 2015, p. xii). In explaining what makes up this Weberian state, Hamilton (1982) asserts that the state is constituted by the civil and military bureaucracy (state apparatus) on the one hand, and those having formal control of this apparatus, the government, on the other. Samatar (2002) views the African state as an “essential actor” that wields considerable power – for good or ill - in society. In the context of this research I consider the African state in the broader Weberian sense.

The role of the state in development and health

In this section I will argue that the state is a key agent in the development project in general and in achieving health policy objectives in particular. The role of the state in both economic and social development has attracted scholarly attention since the turn of the 20th century (Skocpol, 1985; Evans, 1995; Fukuyama, 2004; Cingolani, 2013). There are three definable eras evident in the evolution of state involvement in development. The first era, roughly between World War II and 1980, is the period Amsden (2007) describes as the “economic golden age” during which, “under statist policies...the Third World grew very fast” (p. 135). Amsden (2007) ties the growth in Third World countries in this era to a degree

of policy autonomy from American intervention which allowed developing countries to develop their own relatively independent economic development strategies without much intervention or involvement from powers like the United States. This would no longer be true in the structural adjustment era, as discussed below. In many of the countries which gained their independence after World War II, state-led initiatives achieved ‘rapid economic development’ (Chang, 2003). This era was equally golden for today’s developed nations as many of them achieved remarkable state-led economic growth and improved health status (Chang, 2003, Sugiura et al., 2007). For example, a decade after World War II, the Japanese state’s social development policies and investments in economic development and health increased life expectancy in Japan by over 13% (Sugiura et al., 2007).

Overall, this was an era in which governments played a leading role in health. In Third World countries, where an informal health sector formed the basis of health care (e.g. traditional healers, traditional birth attendants, herbal medicine etc.), post-colonial states led the development of a formal health sector (Feierman and Janzen, 1992). Bloom and Standing (2001) articulate the commitment and progress of these state-led public health interventions as follows:

Most post-colonial countries and newly established command economies were committed to substantial increases in access to health services. There was a common pattern of health sector investment that included building a large network of basic health facilities, training many health workers and strengthening health programs. There was a dramatic increase in physical access to health facilities and trained personnel in all Asian command economies and in many countries of post-independence Africa. (p.2)

In Uganda, for example, the government’s extensive investments in health care created free and easily accessible care (Tashobya & Ogwal, 2004). The second era, between the late 1970s and early 1990s, was the era of the minimalist state (Amsden, 2007). Developing countries were subjected to structural adjustment programmes informed by neoliberal ideas and an approach to development which was heralded by the New Right

(Rodrik, 2006). The basic premise of the neoliberal approach to development was that the state in Third World countries was a rent seeking actor that was bloated, wasteful and inefficient (Mkandawire, 2003). Deepak Lal's 1983 book, "The Poverty of Development Economics" blamed "dirigiste dogma" for the poor performance of Third World economies (Lal, 1983). The orthodox diagnosis of Africa's problem is clearly articulated in the World Bank's Berg report in 1981 (World Bank, 1981). The main policy recommendations of this report were in line with the neoliberal prescription which, as summarised by Rodrik (2006) were: "get your macro-balances in order, get the state out of business, give markets free reign, stabilize, liberalize and privatize" (Rodrik, 2006, p. 340). These prescriptions were accomplished by radical public sector reforms inspired by the New Public Management doctrine and associated concepts about best practice and efficiency (Economic Commission for Africa [ECA], 2003).

The World Bank (1993), in its 1993 World Development Report, outlined the role governments should play in health as follows: (1) they should "foster an economic environment that enables households to improve their own health, (ii) government spending on health should be redirected to more cost-effective programs that do more to help the poor, and (iii) governments need to promote greater diversity and competition in the financing and delivery of health services" (p1-2). Following the 'neoliberal' approach to development, states in sub-Saharan Africa deregulated, privatized and liberalized their economies. By the 1990s, a decade and a half into the reforms, the economies of many countries, particularly those in sub-Saharan Africa, had not only failed to take off, but still lagged behind pre-reform growth levels (Rodrik, 2006). Public sector reforms largely failed to improve efficiency and accountability in the public sector (ECA, 2003). The reforms, which manifested themselves in the health sector in the form of reduced expenditure on health, introduction of user fees, and downsizing of the work force, also failed to improve public health. These reforms

resulted in fewer subsidized health facilities and care, fewer health professionals on duty, crowded health care facilities, limited access due to higher prices /user fees, inadequate supplies and medical equipment (Peabody, 1996). Bond and Dor (2003), describe the devastating impact of the reforms as follows:

Effects included disincentives to health-seeking behaviour witnessed by lower utilization rates and declines in the perceived cost and quality of services; ability to meet major health care expenses dwindled, as did nutritional status; health services price inflation; wage and salary decay; declining morale, and the brain drain of doctors and researchers; declining fiscal support, and difficulties in gaining access to equipment, drugs and transport. (p. 1)

Many other schools agree with Bond and Dor that slashing health sector expenditure, downsizing the public health work force, and the introduction of user fees led to the deterioration of care both in quantity and quality (Akin et al., 1987; Turshen, 1999; Agyepong, 1999; Mliga, 2003). Amsden (2007) refers to this time as the era during which American hegemony drove developing countries out of “heaven” into “hell” (p.2).

The third era, beginning roughly in the early 1990s, is marked by remarkable economic growth in the developing states of Asia and elsewhere, and a new recognition of the role of governments in that success (Mkandawire, 2003). Countering neoliberal arguments, the developmental state theorists of Europe, East Asia and Africa demonstrated the decisive role of the state in promoting economic growth and translating growth into meaningful development, both economic and social (Amsden 1989; Woo-Cumings 1999; Wade 1990; Samatar, 2002). In its 1997 World Development Report, *The State in a Changing World*, the World Bank responded to the findings of the developmental state scholars by acknowledging that if they are, “played well, the state’s activities can accelerate development” (World Bank, 1997, p. 30). Some scholars, such as Cammack (2003) and Best (2014) are of the view that the World Bank still sees the state as a “partner”, “catalyst”, or “facilitator” rather than as a leader in development, but it seems there was a shift in the Bank’s understanding of the relationship of the state to development in the late 1990s. Other

factors that influenced the World Bank's policy shift include the failure of Bank-espoused economic development policies in Africa in the 1980s, and the end of the Cold War (Best, 2014). For the health sector, the change in policy climate meant a transition from user fees to universal health care, and a more prominent role for the state in health care promotion and delivery (WHO, 2008; Yates, 2009; Ridde & Morestin, 2010).

There is wide spread consensus now that states must play a major role in improving the health of their respective populations and that better health will contribute to expanding human capabilities (Sen, 2001). Sen (2001) considers human capability to be the cornerstone of dignified life and wellbeing. In his conceptualization of human capability, lack of health deprives individuals of the capacity to live a quality life. The work of Evans et al. (2014) and Ostrom (1996) also emphasises the "expansion of human capabilities", including the promotion of population health, as fundamental development goals. Evans and colleagues (2014) capture the key role of the state in promoting these fundamental development goals as follows:

The foundations of capability expansion are collective goods. The social returns from these investments are higher than their private returns, so unless they are publicly provided they will be undersupplied. Preventative public health expenditures on pursuits like vaccination campaigns or sewage treatment is [an example]. The delivery of health and education is embodied in large institutional systems. The demands on the state are much greater than those involved in providing infrastructure that benefits capital directly. Incentivizing and supporting investment in industrial activity is a complex task, but delivering quality education or health care through the population requires much more state capacity. (p.7)

The role of the state in the health sector has changed over time within the international health policy arena. For much of the 20th century, national governments were the primary actors responsible for the public health needs of their citizens: they regulated, purchased, and delivered health services either directly, through centrally-controlled institutions and facilities, or indirectly, through sub-national structures and non-state service providers (Bloom & Standing, 2001; Dodgson et al., 2002; McMichael & Beaglehole, 2000).

Within national governments, health authorities were tasked with healthcare provision (Dodgson et al., 2002). Public education to improve general knowledge about how to prevent disease and improve individual and community health was a major goal of states in the 1980s and 1990s (Raphael, 2008; Hawks et al., 2007, Nutbeam, 2000.).

Over the last few decades, however, the public health landscape has changed and so has the role of the state in healthcare. Rolling back the state meant that the private sector would take on delivering health services (Harrison, 2005). National health policy arenas became internationalized. UN agencies, international NGOs, corporations, expert groups and think tanks crowded out national governments in developing countries and, in many instances, undermined the capacity of the state (Walt, 1994; McMichael & Beaglehole, 2000; Lee 1998). These non-state actors exert pressure on, and have influence over, health policy making at the national level, and serve as conduits for priorities “influenced by policy process at the international and global level” (Walt, 1994; Taylor, 2004). In developing countries such as Uganda and Rwanda, new instruments and global health initiatives such as the GAVI Alliance and the Global Fund to Fight AIDS, Tuberculosis, and Malaria, and the Bill and Melinda Gates Foundation, have started functioning within or in parallel with the health systems, at times negatively affecting their performance (Biesma et al., 2009). External influence is compounded by the need to collaborate with other countries to respond to health issues that transcend boundaries (Koplan et al., 2009). Today’s state, therefore, has to navigate and negotiate its way through a complex and globalized health terrain (Gostin & Mok, 2009). In the context of developing countries such as Uganda and Rwanda, where bilateral and multilateral institutions contribute a significant portion of health budgets, navigation and negotiations involve keeping international support while also maintaining some level of autonomy and state capacity (Omaswa & Boufford, 2010).

Notwithstanding these trends, the state remains important when it comes to the health sector. In its 1993 World Development Report *Investing in Health*, the World Bank clearly acknowledged market failures in the health sector and underscored the important role of the state in health. The state gives the poor access to health services that market forces do not; raises public welfare; and promotes public health as a public good (World Bank, 1993). Kickbusch and Gleicher (2012) argue that the government has the ability to “steer communities, and countries in the pursuit of health as integral to [the] wellbeing” of the population (p.4). Ansell and Gash (2008) describe this “steering” ability as one of the ways government and public institutions initiate “collaborative governance” in achieving developmental policy objectives.

Seen in light of the above, debate about whether or not the state should intervene in development and/or health policy is “sterile”. In the words of Evans (1995), “State involvement is a given. The appropriate question is not how much but what kind of involvement (p. 10). Even the World Bank, an institution known for its skepticism about state involvement, as discussed above, came to appreciate the important role of an ‘effective state’, eventually asserting that “without an effective state, sustainable development, both economic and social, is impossible” (World Bank, 1997, p. 158). It is in the context of the reinstated state that ‘state effectiveness’ is discussed in development literature.

Unpacking state effectiveness

Leftwich (2008) associates effectiveness with the institutional means to achieve developmental objectives, asserting that “only effective states and preferably developmental ones – whether democratic or not – are capable of elaborating the institutions which will establish poverty reducing growth and associated welfare regimes” (p. 3). Evans et al. (2014) relate effectiveness to developmental outcomes, suggesting that “the ultimate measure of a

state's effectiveness is its contribution to the wellbeing and flourishing of the people that it governs" (p.1). Given that we are interested in state effectiveness in the context of development,⁴ I have defined an effective state as one that attains its own stated development objectives. In order to articulate and attain development objectives, a state needs autonomy, capacity and leaders who will work to make that happen. This definition is in line with Goodfellow's (2012) conceptualization of state effectiveness as "evident when the stated aims of government codified in policies, laws and regulations are translated into accomplishment" (p.46).

In state-centered literature, three concepts are used to articulate the performance of the state: state autonomy; state capacity; and the political will of state leaders. The following sections elaborate on these three conceptual variables, and their strengths and shortcomings in assessing state effectiveness. I will also touch on their application to the health arena specifically and explain how we will conceptualize them for this research, particularly focusing on their implications for state engagement in health at the international, national and local levels. This discussion will also look at how the three categories interconnect and articulate with each other.

State autonomy and health

This section presents the literature on state autonomy and outlines why state autonomy is important to achieving stated health policy objectives. It pays particular attention to the ability of the state to maintain policy independence in the face of powerful internal actors with different interests to those of the state, and in the face of dependence on aid from donors who play an important role in influencing public policy in developing countries.

Theoretical discussion regarding state autonomy has evolved over the last decades and should be situated within the broader literature on the role of the state. Before the 1950s,

⁴ We are not interested in the effectiveness of the state in achieving non developmental goals. For example, a state can also be effective in oppressing its citizens using its coercive power (e.g. North Korea and Ethiopia).

the state, in the eyes of both liberals and traditional Marxists, was “viewed as an arena within which economic interest groups or normative social movements contended or allied with one another to shape the making of public policy decisions” either to benefit the ruling class or to allocate resources “among demanding groups” within society (Jessop, 2001). The state was recognized as a relatively autonomous or “independent” actor in the late sixties and seventies that can work to mediate these interests (Skocpol, 1985). The literature on state theory suggests that two waves of scholarship were critical to this renewed interest in the role and autonomy of the state: neo-Marxist debates on “the capitalist state” in the 1960s, and the state-centric institutionalism debate of the 1970s and ‘80s (Jessop, 2001).

Neo-Marxist scholarship revisited the Marxist conceptualization of the role of the state in the transition from a feudal to a capitalist system of production, during which welfare economies with the capacity to distribute wealth emerged in Europe (Cingolani, 2013). This socio-economic function of the capitalist state, however, did not persuade neo-Marxists to adopt a conceptualization of the state as an independent actor (Miliband, 1969, Poulantzas, 1974). Rather, the neo-Marxists maintained that the state needs “relative autonomy” from any specific dominant social group or class in order to “serve the fundamental interest of an entire dominant class” (Skocpol, 1979, p.27). From the neo-Marxist perspective, state autonomy is inherently compromised since a state’s autonomy “is generally defined in terms of the relation of the state to the dominant class, [and] the presumption is that the state upholds the interests of that class” (Hamilton, 1982, p. 13).

State-centric scholarship criticized the neo-Marxists for not taking the independent role of the state seriously, that is, for “ignoring the distinctive role and interests of state managers... and assuming that the development and subsequent operations of the state or political system were determined by the functional requirements of society as a whole” (Jessop, 2001, p. 8). Skocpol (1979) observes that “to treat political outcomes in advanced

capitalism as the enactment of a far-sighted capitalist ruling class or as the automatically functional responses of the political system to the needs of capitalism” is inadequate (p. 199). She advocates recognizing the state as an institution that has its own “structure and history, which have an impact on society” (Skocpol, 1979). State autonomy is crucial if the state is to pursue its goals and “maneuver for survival and advantage in relation to other states” (Skocpol, 1985, p.8). She argues that without accepting state autonomy "there is little need to talk about states as important actors" (p.9). She also asserts that the state is autonomous when it “formulate[s] and pursue[s] goals that are not simply reflective of the demands or interests of social groups, classes, or society” (p. 9), meaning that the state pursues societal goals in the face of opposition from economically dominant classes who benefit from the status quo (Nordlinger, 1981).

Subsequent research by other state-centered scholars has shown empirically that autonomous states can exercise power even in the face of resistance. For example, Geddes (1994) found that between 1930 and 1960, most Latin American countries implemented development policies that were antagonistic to the interests of the economically dominant class from the agriculture and mining sectors (two leading export sectors at the time), although Geddes also observed that the state’s elite used this autonomy only when it served their own political objectives. Generally, state-centric scholars reference the state’s power to “penetrate, control, supervise, police, and discipline” to demonstrate the state’s autonomy (Cingolani, 2013; Mann, 1986).

Another school of thought argues that the nature of state authority is determined by the nature of state-society relations. For example, Migdal (1988), while rejecting Marxist and structuralist views of the state, claims that state actions are merely manifestations of preexisting social patterns of power. He discusses the weak state/strong state dichotomy, and frames state autonomy within the larger context of state-society relations. Basing his analysis

partially on Weber's work, Migdal argues that the state is only one of many actors within society who each aim to impose their rule/will on the society at large. Put differently, the state and society are engaged in a continuous process of mutual constitution and mutual transformation. Hence, the capacity of the state, in Migdal's view, is determined by how the state manages the struggle over control between the mélange of social organizations including the state itself, a view that shows the interlinkage between state capacity and autonomy. Consequently, strong capable states emerge only when the political leaders are able to mobilize people and resources and impose a single set of rules on the society. He asserts that "[s]tate social control involves the successful subordination of people's own inclinations of social behaviour or behaviour sought by other social organizations in favor of the behaviour prescribed by state rulers" (Migdal 1988, p. 22). To achieve this objective, the state must acquire and exploit "essential tentacles": the army, taxation mechanisms, and legal capacity. Collectively, these tools compel societal actors not only to comply with the rules of the state but to see them as legitimate. Migdal's analysis of state power can be understood to mean that the state's autonomy is not a given but is instead dependent on its ability to control society. Hence, "increased capabilities of the state include and rest upon increased state social control" (Migdal 1988, p. 22).

There is also a body of literature examining the impact of globalization and "internationalized" development policy processes on state autonomy. This scholarship examines the impact of the "free" flow of goods and services on the autonomy of nation-states and their economies. One side of this debate argues that powerful market forces (eg. those determining the transfer of finance, technology, and investment) have penetrated "national capitalism", rendering the nation state powerless. Proponents of this school of thought, which Goldblatt et al. (1997) refer to as *Hyper-globalisers*, contend that due to globalization "significant national differences are being eroded and a homogeneous global

economy and culture is emerging; the sovereignty and autonomy of nation-states have been radically reduced” (p1). The other side of the debate asserts that globalization has not eroded state power. Weiss’ book, *The Myth of the Powerless State*, provides a succinct summary of this position. Weiss shows that states adapt to the internationalization of national economies, and argues that the impact of globalization “depends to a large degree on the strength or weakness of domestic institutions” (Weiss 1998, p. x).

A variant of the transnational perspective most relevant to this research looks at internationalized development policy processes and their impact on the autonomy and capacity of states in developing countries. The bulk of this literature focuses on how Western donors and international development agencies like the International Monetary Fund (IMF) and the World Bank impose “neoliberal⁵” development policies on Third World countries, shrinking the development space of these countries (Gallagher, 2005). This perspective is closely linked to the debate about aid delivery and its effectiveness following the failure of the structural adjustment programs and the end of the Cold War in the early 1990s (Bourguignon and Sundberg, 2007). A key point that needs to be underscored here is that it’s not just the structural adjustment measures themselves that are problematic – it’s that economic elites implement IMF and WB demands for structural reform in a manner that benefits the economic elite – they are in a position to protect their interests. This ties into the need for state autonomy.

Two aspects of this debate are critical for this research. One is the need to consider the state as a key agent in the development project (addressed in the previous section). The second aspect is related to the power and influence donors have over aid recipient countries, and the role recipient countries are able to play in using aid to achieve their own developmental objectives. The key conclusions that emerge from this debate point to the

⁵ Harvey (2007) defines Neoliberalism as..” a theory of political economic practices that proposes that human well-being can be best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade” (p.2)

potential for aid recipient countries to take ownership of sponsored projects in order for aid to be effectively mobilized (Van de Walle 1996). While state autonomy cannot be equated with country ‘ownership’ of development projects, it is important to recognize that (excessive) donor influence over developing countries affects the ability of the state to pursue its goals. In essence, in developing countries where external actors occupy an important space in the policy arena, state autonomy is also manifested through state-external actor relations (Gallagher, 2005; Evans, 1995). Evans’ (1995) statement that in developing countries “development is no longer just a local trajectory of transformation” captures the reality that external actors have sufficient influence to shape or co-shape that trajectory.

Donor governments and non-governmental agencies have influence because of the substantial amount of aid they provide to developing countries. In the health sector alone it is estimated that global health investments reached \$20 billion in 2009 (Sridhar, 2009). In 2011, about US\$1.66 billion was invested specifically in malaria control (Korenromp et al., 2013). Speaking about the challenge this dependence on aid poses to state autonomy in developing countries, a Minister of Health from Africa noted: “Eighty percent of the Ministry’s budget is from overseas development aid, and [these donors] were essentially partitioning the country according to their interests, fighting among themselves to protect their area and not often cooperating with the Ministry of Health. So the big challenge was how to convene and get them to adhere to our plan” (Omaswa and Boufford, 2010, p. 16.). It is often purported that such problems can be addressed by strengthening partnerships between recipient countries and donors, but such partnerships too often legitimise the role of donors and international development partners in the recipient countries’ health systems (Barnes et al., 2016).

There is also concern that the disease specific nature (and vertical programming) of Global Health Initiatives such as the Global Fund, the President’s Malaria Initiative (PMI), the World Bank Multi-Country AIDS Program (MAP), and the US President's Emergency

Plan for AIDS Relief (PEPFAR), might undermine the health systems of recipient countries by overriding state priorities. These instruments have helped countries to scale up specific interventions, but their focus and priorities are established by outside agencies (Biesma et al., 2009; Hafner & Shiffman, 2013; Chima & Homedes, 2015). The attempt by states in developing countries to “gain support while maintaining autonomy” and the ability to set their own agenda is stifled by “rigidity in programming, and priorities that are inconsistent with country priorities; donor staff inadequacies, including low levels of cultural competency and lack of knowledge regarding local conditions; disproportionate power; and inadequate resources” (Omaswa & Boufford, 2010, p. 16).

Recognition that recipient countries must have a larger role and greater participation in aid delivery led, at least in theory, to the development of new “aid architecture”. New principles for aid delivery were laid out in the Paris Declaration in 2005, the Accra Agenda for Action in 2008, and the Busan Agreement in 2011. This aid architecture places emphasis on the importance of five principles: country ownership of strategies and development policies, the alignment of development programmes with a country’s development strategy, the use of recipient country systems and mutual accountability, better coordination of aid, and results-based aid delivery. Particularly in the health arena, given the the number of global health initiatives, “donor influence on priority setting and donors' lack of accountability, and the sustainability of current levels and types of external financing”, the importance of country ownership of initiatives is emphasized (Sridhar, 2009, p.1363).

It is now a decade since the new principles were first adopted and few development experts are celebrating improved aid effectiveness and/or country ownership of aid initiatives in Africa (Moss et al., 2006). In a widely cited article, *Aid effectiveness: bringing country ownership (and politics) back in*, Booth (2011) puts it this way:

The assumption that country ownership in this sense already exists, and the only issue for international actors is how to avoid undermining it, is completely unrealistic, at

least in low-income Africa. Yet this seems to be the assumption behind aid alignment and the other donor commitments under the Paris Declaration. A more coherent position would be to make full use of what is known about the likely sources of developmental leadership in poor countries, as a means of avoiding doing harm with aid and non-aid policies, and as a platform for thinking about how external actors might become constructively involved in helping country ownership to emerge. (p. 553)

Booth's focus on country ownership highlights the importance of an autonomous state that can utilize aid to pursue its own developmental goals. Moss and associates (2006) also argue that without strong public institutions, aid is not effective and might even limit the state's capacity to develop capable institutions. Similarly, Grimm (2013) asserts that the sheer number of aid instruments, their conditionality, and the unpredictability of aid flow creates a suffocating environment whereby African governments fail to develop and successfully implement strategic development plans. It is therefore essential that any discussion of state autonomy be situated within the debate about donor influence over policy processes, and the importance of country ownership for the success of developmental efforts.

Literature addressing the paradox of autonomy in the face of aid dependency in Africa is limited. The one prominent exception is the discussion of how African countries deal with donors and carve out their own space in the face of aid dependence captured in the edited book, *the politics of Aid: African strategies for dealing with donors*, by Lindsay Whitfield (2009). The conclusion drawn from the case studies the authors present (Botswana, Rwanda, Ghana, Zambia, Mozambique, Ethiopia, Mali, and Tanzania) is that bureaucrats in these countries have difficulties managing aid partly due to the overwhelming influence and demands of donors (Whitfield, 2009). Whitfield (2009) argues that most African states do not demand autonomy because aid is structured in a manner that incentivizes subordination.

That said, there are a few cases (such as Vietnam, a country often referred to as an example of best practice in aid effectiveness) where governments have managed to carve out space for autonomy in the face of aid dependency (Forsberg & Kokko, 2007). Forsberg and

Kokko (2007) conceptualize autonomy as ownership of the development agenda and control over externally mobilized development resources. According to these scholars, Vietnam's Ministry of Planning and Investment (MPI) collects externally mobilized resources and channels them through government agencies in order to achieve the states' development agenda. These scholars analysed Vietnam's ownership of aid-sponsored development using the government's 'project priority list' and examining how well external agencies complied with that list.

A significant characteristic shared by states which seem to manage the influence of donors and external agencies, as well as powerful internal actors, relatively well, is that they are founded on the "seizure of state power" (Leftwich, 1995). The Botswana Democratic Party (BDP) was able to guide the direction and pace of the country's development after it took over from its German colonizers in 1965 (Botlhale, 2017). In 1967, two years after gaining independence, the BDP government nationalized Botswana's mineral resources, showing that the political elite was intent on maintaining relative autonomy from internal and external state and non-state actors (Hillbom, 2008). The Communist Party of Vietnam seized power in 1976, and took action to ensure its autonomy (Painter, 2005; Fritz & Menocal, 2007). In Thailand, the Siamese Revolutionary Army seized power from the country's civilian leaders in 1932, establishing firm autonomy. In China state power was seized by the Chinese Communist Party, which considers autonomy a key factor in pursuing state objectives. In Korea it was a military coup led by General Park Chung in 1961 that seized power and ensured autonomy; and in Taiwan the "Nationalist regime" took over the government in 1949, protecting the state's autonomy (Leftwich, 1995).

According to Leftwich (1995), autonomy in all these cases was obtained and is maintained through deliberate policy actions. As he observes, "these [seizures of power or] take-overs have normally been accompanied or immediately followed by the (often brutal)

elimination, subordination or marginalization of political groups, organizations, and socio-economic classes, which had previously enjoyed both wealth and power, which might threaten the new regime or sabotage its developmental purposes” (p. 409). This connection is crucial, signalling the importance of looking at the history of individual case studies in order to understand how key institutions evolved. In Rwanda and Uganda, differences in their histories and the development of their institutions and governments provide insight into the observed divergence in state effectiveness vis-à-vis malaria control.

Looking at the history of institutional development in Rwanda, one cannot escape the legacy of the apocalyptic genocide in 1994. Rwanda's post-conflict reconstruction has been robust. Institutions have been rebuilt at 'surprising speed' (Ansoms, 2009). The genocide seems to have served as a catalyst, giving the new political elite (primarily through Rwanda's Patriotic Front) a window of opportunity for institutional reform oriented toward development (Holmes, 2010; Crisafulli & Redmond, 2012). While the genocide should be treated as an important factor, it cannot be considered sufficient to explain Rwanda's current development status. Uganda also endured terrible civil wars in the 1970s and 1980s that left political and institutional legacies. The ruling party in Uganda, the National Resistance Movement, was formed during that era and has been in power since 1986, shaping the trajectory of Uganda's politics and development policy over the last three decades. A discussion on the history and institutional context of the two countries should be complemented with an analysis of the implications of the international policy response to controlling malaria. This is essential because studying malaria and its control would be incomplete without understanding the international malaria control policy response over different periods and their implication for the two countries since controlling malaria in tropical Africa has always been internationalized, as will be shown in the empirical chapters.

In the next section we assess state autonomy (as defined within the context of this research) by examining how the state motivates public and national actors to rally behind government policy, and how it ensures compliance with government programs and plans. We assess the autonomy of the state from external (international) actors by measuring donor compliance with, and support for, the state's own priorities and programs as codified in policies while recognizing the challenge of determining the genesis of policy since international priorities and policy can become national priorities through policy transfer. In the case of malaria control initiatives, for example, both Uganda and Rwanda have implemented WHO-transferred malaria control policies. Even where there is less clear cut policy transfer, countries in the developing world often rely on external agencies and donors (usually through consultants) to draft policy. With these limitations in mind, 'donor-compliance-with-state-priorities' has been triangulated with another measure: the use of in-country systems for malaria control-related decisions. Measuring the use of in-country systems entails discerning whether or not funds for malaria control are channeled through the government, and whether or not government systems are used to decide on and/or monitor malaria control activities (eg., which agencies work where? Which agencies do what? Who invests what?), as well as determining whether or not actions are taken against organizations that do not align their interventions with country priorities and in-country delivery systems.

State capacity and health

Over the years, the concept of state capacity has acquired significance in several disciplines including political science and sociology (eg. Skocpol 1979, Geddes 1994, Weiss 1998, Evans & Rauch 1999), peace and conflict studies (eg. Fearon & Laitin 2003, Hendrix 2010), economics and economic growth (eg. Amsden 1989, Wade 1990), and public administration (eg. Evans & Rauch 1999). This wide applicability has created an enormous body of literature about the concept, but also resulted in a 'conceptual muddle'. Fukuyama

(2004) asserts that this muddle arises partly from confusion about the distinction between the strength and scope of a state, noting that state institutions in democracies such as the United States are designed to limit the scope (i.e the mandate of the state) but have ample strength to achieve policy objectives within the state's defined mandate.

In developing countries, two perspectives inform the discussion of state capacity. The first perspective is relational: it considers state capacity to be contingent upon and/or constrained by a lack of autonomy from internal and external forces. This perspective relates state capacity to state autonomy as discussed above. The second perspective (the state-centered perspective) assumes that the state has autonomy or relative autonomy and analyzes state capacity through the power it exerts over internal society and external actors. This view of the state is concerned particularly with the coercive, extractive, and administrative capacities of the state (Skocpol, 1985; Evans, 1995; Mann 1986).

Coercive capacity is related to the state's control over its territory and people and its ability to maintain its monopoly over violence. According to Hendrix (2010), for the state to maintain its monopoly over violence it must be "capable of accommodating grievances via institutionalized channels, such as redistribution, the granting of autonomy rights, or the incorporation of dissident movements within the party system or capable of repressing [complaints]" (p.273). The literature on peace and conflict often examines state capacity from this perspective (see Sobek, 2010; Hendrix, 2010; for a review of this literature). The extractive capacity of the state has to do with its ability to raise or mobilize revenue from the people in its territory (Cingolani et al., 2015). Revenue "enables the government to operate in other domains" (Fukuyama, 2013). Historians discuss extractive capacity in the context of European and American states building tax collection institutions and beginning to raise revenue, enabling them to respond to the "exigencies of war" (Persson & Besley, 2009).

State-centered scholarship also puts administrative capacity at the center of its analysis of the state's ability to carry out official policies (Skocpol, 1985; Evans & Rauch, 1999).

Skocpol (1985), for example, argues that “sheer sovereign integrity and stable administrative–military control of a given territory are preconditions for any state's ability to implement its policies. Beyond this loyal and skilled officials and plentiful financial resources are the basic tenets to state effectiveness in attaining all sorts of goals” (Skocpol, 1985, p. 26). This focus on the institutional and organizational arrangements necessary for the effective implementation of policies is central to the literature on state capacity (Evans & Rauch 1999; Skocpol, 1985; Robinson, 2008). For example, Mann (1986) defines state capacity as the “institutional capacity of a central state ... to penetrate its territories and logistically implement decisions” (p. 113). Similarly, Öniş (1991) relates state capacity to “the institutional bases” of a development oriented state that enables it to implement policies effectively. Other scholars have identified specific capacities necessary to the effective state. For example, Weaver and Rockman (1993) identify over 10 capabilities that governments need in order to be effective, including the capacity to set and maintain priorities, to target resources, to innovate when old policies fail, and to ensure effective implementation of government policies.

The literature on administrative capacity discusses state capacity in terms of “whether a state is able to implement official goals” (Skocpol 1985, p.9) using its bureaucratic muscle, and the existence of “proper levels of intra-state agency coordination” (Cingolani, 2013, p.6), both of which are specifically relevant to this research given that we are interested in understanding whether Uganda and Rwanda have been able to implement their own official malaria control goals. The capacity of the state to deliver and coordinate interventions across government agencies and with external development partners and corporations is key to addressing developmental challenges (Gore, 2000; Wegrich & Štimac, 2014). In the health

arena, inter-agency coordination is often captured in the slogan “health in all policies”, which advocates that all government agencies consider ensuring the health of the people as a shared objective, and design and implement their programs accordingly (Omaswa & Boufford, 2010).

The literature recognizes that state capacity might be uneven across policy areas even within the same state (Skocpol, 1985). Krasner (1978) points out that “there is no reason to assume a priori that the pattern of strengths and weaknesses will be the same for all policies” (p.58). Specific government agencies may have different levels of “organizational effectiveness”, defined by Crook (1989) as “the degree to which [an organization] routinely fulfills its own stated goals or tasks” (p. 211). Sometimes bureaucratic effectiveness can be found in otherwise ineffective states. For example, discussing pockets of effectiveness within the Brazilian state, Whitehead (2006) notes that “certain federal agencies are known to be the instruments of unfettered patronage, whereas others pride themselves on their technical competence and professionalism” (p. 196). Given that state capacity is sometimes measured by the presence of an effective professional bureaucracy (in specific agencies or as a whole), an important body of literature focuses on the relationship between political principles and bureaucrats, particularly the level of autonomy bureaucrats have to get things done (Meier & Krause, 2003; Epstein & O’Halloran, 1994). In this literature, autonomous bureaucracy is associated with better performance (Evans & Rauch, 1999; Wade, 1990).

In the health arena, capacity, or the lack of it, is often mentioned in discussions about health status and health interventions in developing countries (Pappaioanou et al., 2003; Lansang & Dennis, 2004). There is, in particular, considerable literature addressing the inability of states in developing countries to implement effective interventions, prompting the WHO to decry the “gap between knowledge and action” for building a healthy society (Haines et al., 2004). A series of studies published in the *Lancet* in 2003 reported that “in the

42 countries with 90% of child deaths worldwide in 2000, 63% of these deaths could have been prevented through full implementation of a few known and effective interventions” (Bryce et al., 2003, p. 159). In a study looking at Bolivia, the Central African Republic, and Tanzania, lack of capacity was blamed for the poor delivery of maternal and child health services (Macfarlane et al., 2000).

The weak capacity of the state in developing countries is also invoked to explain the failure to control malaria (Mills et al., 2008; Atta & Zamani, 2008; Alilio et al., 2004). In a widely cited article on malaria resurgence, Cohen and colleagues (2012) firmly establish the importance of strong capacity, in addition to funding and political will, in controlling malaria. In areas where the burden of malaria has been greatly reduced (eg. Eritrea, India, Brazil and Vietnam), factors related to structural and implementation capacity such as “decentralized implementation and control of finances, skilled technical and managerial capacity at national and sub-national levels” were credited with the success (Barat, 2006, p.12).

While the importance of state capacity is recognized, its operationalization, like the concept of state autonomy discussed above, demands clearer definition (Cingolani, 2013). In state-centered scholarship, three main areas are measured to assess state capacity. The administrative capacity of the state is assessed relative to the professionalization⁶ of state bureaucracy (eg. merit-based recruitment and clearly defined career goals and incentives) and its autonomy from political pressure, financial management, institutional systems, and the level of education achieved by most bureaucrats (Skockpol, 1985; Evans & Rauch, 1999;

⁶ Fukuyama (2004) discusses Weber’s ten criteria that characterize professional bureaucracy: 1. bureaucrats are personally free and subject to authority only within a defined area; 2. they are organized into a clearly defined hierarchy of offices; 3. each office has a defined sphere of competence; 4. offices are filled by free contractual relationship; 5. candidates are selected on the basis of technical qualifications; 6. bureaucrats are remunerated by fixed salaries; 7. the office is treated as the sole occupation of the incumbent; 8. the office constitutes a career; 9. there is a separation between ownership and management; and 10. officials are subject to strict discipline and control.

Goodfellow, 2012). The extractive capacity of the state is measured in its revenue generation capabilities/tax collection ability (Person & Besley, 2009; Tilly, 1975; Skocpol, 1979).

Military expenditure and military personnel per capita, conflict onset, and the control of territory in relation to rebels or groups challenging the authority of the state are used to measure the coercive capacity of the state (Hendrix, 2010; Sobek, 2010; Hanson & Sigman, 2013).

These measurements provide useful entry points for analyzing the capacities of Rwanda and Uganda, but their limitations must also be recognized. The key limitation in assessing administrative capacity by measuring the professionalization of the bureaucracy is that while professionalization and merit-based recruitment provide good measurements for “available capacity”, they reveal nothing about deployed capacity or capacity in use, as will be shown in later chapters. For example, Uganda has greater capacity than Rwanda in terms of human resources for health promotion, but that capacity is not put to use effectively. This situation demonstrates, as will be discussed in the empirical chapters, the need to consider available and deployed capacities separately. With regard to the coercive dimension of state capacity, it is important to acknowledge that the proposed measures do not apply to the sort of coercion employed in social service delivery, which is characterized by the ‘co-production’ of outcomes (i.e. the government educating and working with communities to help them accept malaria control and treatment interventions) as explored in the section on state autonomy above. Finally, using revenue generation as a measure for state capacity assumes that available revenue will be used effectively, which is not the case in many countries (Fukuyama, 2013). Another limitation of measuring revenue as an indicator of state capacity is that both Uganda and Rwanda rely heavily on foreign aid to fund their malaria control programs (see sections on commitments to combatting malaria for a breakdown of malaria budgets and funding sources).

Since a major thrust of statist analysis of state capacity is to show that “state structures can constitute valid explanatory variables for development outcomes” (Krasner, 1984, cited in Cingolani, 2013, p. 6), exploring the capacity of the two states in this study in terms of their structural and institutional arrangements for controlling malaria will be central to this work. This will include a discussion on the health systems and national malaria control programs of each of the two countries. Understanding how their health systems and malaria control programs function will provide necessary insight into the role and capacity of their respective governments in delivering, regulating, monitoring and enhancing the quality of health care. Through this study we will learn how access to proven tools for malaria control such as LLINs, RDT kits, and ACTs is assured, how evidence and information generated through in-country oversight and recording systems is used to guide malaria control efforts, how a health workforce to tackle malaria is created, how the government engages stakeholders involved in malaria control, how the government regulates and enforces the use of malaria drugs and insecticides, and how, at the community level, governments raise awareness of the causes and consequences of malaria, and distribute malaria prevention and treatment tools.

These findings will be complemented by an analysis of how the state, particularly the Ministries of Health and National Malaria Control Program (NMCP) officials and staff, interacts with communities, local actors, state actors from other sectors, and key external actors. I will examine the role played by the ideas and innovations that policy entrepreneurs and bureaucrats inject into malaria control programs in achieving malaria control goals.

Because state capacity is not acquired all at once, it is also important to look at the evolution of the institutions and structures and account for potential historical determinants (Tilly, 1975, 1992). This broader perspective will help us to keep the ‘messiness’ of public policy in mind, and to address the problem of linearity, the false assumption that rational and

evidence-based decisions inevitably lead to desired policy outcomes, for which implementation studies are often criticized (John, 1998; Goodfellow, 2010).

Political will and health

Analysts have advanced a number of explanations for the apparent inability of African states to produce desired development policy outcomes, including health policy outcomes. In addition to the lack of state autonomy and capacity, is the absence of political will (Agere, 2000; Stevens & Teggemann, 2004). Indeed, the failure of African states to combat corruption (Brinkerhoff, 2010), eradicate poverty and reform the public sector (Stevens and Teggmann, 2004), achieve the Millennium Development Goals (MDGs), or control HIV/AIDS, malaria, and tuberculosis (Karim et al. 2009) have all been attributed to a lack of political will. So what is political will? This section elaborates the concept of political will and shows that political will is critical to achieving a state's developmental and health policy objectives.

Post et al. (2010) define political will as: “a sufficient set of decision makers with a common understanding of a particular problem on the formal agenda [who are] committed to supporting a commonly perceived, potentially effective policy solution” (p.659). Leftwich (2010) argues that focusing on the political base of an effective state (as in the definition above) allows policy researchers to “have a much better analytical handle on the role of human agency in the developmental process and on the role of leaders, elites and coalitions in particular” (p. 93). In the health sector, which will be discussed below, “the term political will is frequently used to describe the ability to effect change” (Kickbusch & Gleicher, 2012, p. 84). Similarly, the developmental state strain of state-centered literature emphasizes the crucial significance of development-oriented leadership if states are to be effective and developmental (Amsden, 1989; Beeson, 2003; Woo-Cumings, 1999; Wade, 1990). In most cases the leadership being referred to in developmental state literature is a “small cadre of

developmentally-determined senior politicians and bureaucrats, usually close to the executive head of government who were instrumental in establishing the developmental regime and its culture” (Leftwich, 1995, p. 405).

The Overseas Development Institute (2006) asserts that in any country, the leadership’s “concern for and commitment to national goals” indicates the presence of political will. This will is key to achieving the development agenda. It is argued that a committed political elite creates effectively functioning state institutions and gives the bureaucracy space to co-define and pursue the development agenda of the state (Weiss, 2003; Wade, 1990). Samatar (2002) reinforces this proposition, arguing that developmental states in Africa, such as Botswana, “are products of the will of political leaders who use their mandate, democratic or otherwise, to build professionally managed institutions” (p.25). Understood in this way, political will/political commitment⁷ becomes a quality development oriented leaders have in order to achieve developmental objectives. In other words, “Political will is inextricably tied to policy outcomes, and the general thrust of the argument here is that political power and other resources... are essential for producing these [developmental] outcomes” (Post et al., 2010, p. 658).

In the public health arena, political will is considered an important ingredient for achieving health policy goals. The World Bank’s 1993 *World Development Report* states that “broad reforms in the health sector are possible when there is sufficient political will and when changes to the health sector are designed and implemented by capable planners and managers” (p.2). Costello and Osrin (2005), writing about maternal, neonatal and child survival, note that “with political will and financial support, most countries could meet the Millennium Development Goals” (p. 605). The proposition is not that political will automatically translates into meeting developmental or health policy objectives, but that its

⁷ Political will and political commitment are used interchangeably.

presence or absence goes some way to explaining the developmental records of development oriented states (Leftwich, 2010).

Lezine and Reed (2007) describe political will as the “bridge between public health knowledge and action”. Preventable public health problems such as malaria and HIV/AIDS are wreaking havoc in the region under study, prompting some to warn that these problems should be an “important political concern for governments especially in Sub-Saharan Africa” (Karan et al., 2017). In the Sub-Saharan region of Africa, many studies link the commitment of the political leadership to the attainment of health policy goals. In Ghana, universal health care was achieved through the political stewardship of Ghanaian politicians (Fusheini, 2016). In Mali and Kenya, Hill and colleagues (2015) found that with greater political will, antenatal care could be saving the lives of many women who are currently lost due to factors that could be easily tackled. In Nigeria, Oku and colleagues (2016) identified “weak political will” as one of the factors negatively affecting the implementation of childhood vaccination. In Nigeria, health system challenges are also tied to the political will of the nation’s top leaders (Green, 2016).

Recent studies of variations in the implementation of integrated community case management (iCCM) for malaria, pneumonia, and diarrhea in Niger, Burkina Faso, Mali, Kenya, Malawi and Mozambique found that “the scaling up of iCCM requires understanding the political accountabilities involved”, illustrating the link between accountability and will (George et al., 2015, p. ii3). The authors of these studies warn that although iCCM is often packaged as a “technical intervention,” the reality on the ground “reflects the larger and messier real world of health politics, policy and practice, for which policy analysis is vital, as an integral component of public health programming” (George et al., 2015, p. ii3). In South Africa, “Political commitment and long-term funding for the malaria control programme

have been a critical component of the programme's success" (Blumberg et al., 2014, p.224).

South Africa is now entering a malaria control elimination phase.

While the importance of political will permeates development literature, the conceptualization and operationalization of political will as an explanatory variable has been critiqued. Hammergren (1998) describes political will as "the slipperiest concept in the policy lexicon", characterizing it as "the *sine qua non* of policy success which is never defined except by its absence" (p.12). The concept is difficult to operationalize for the following reasons: attributing the presence or absence of political will to individuals and groups at various levels of government is problematic (Brinkerhoff, 2010); its properties (i.e whether it is binary or continuous) are in question (Post et al, 2010); and its presence or absence can depend on other underlying factors such as capacity (Brinkerhoff, 2010, Post et al, 2010). Some researchers have abandoned the concept because of these difficulties (Streeten, 1995, Goodfellow, 2012).

However, given that political will is often tied to state effectiveness in the development literature, the concept is too important to be abandoned. Understanding the importance of the concept, academics and practitioners have, over the last decade, provided elaborate definitions and suggested several ways to operationalize it. Brinkerhoff (2010), for example, identifies seven components of political will to help researchers operationalize the concept, particularly in the context of combatting corruption. In the health sector, which is more relevant to this research, Fox et al. (2011) identify three indicators by which to assess political will: expressed, institutional, and budgetary commitment. Expressed commitment is present when key government officials make public statements about the control of disease (Fox et al, 2011). The Zambian president's decision to wear malaria control t-shirts, to spray the state house, and to publicly endorse the use of treated nets is an example of expressed commitment (WHO, 2011). Institutional commitment is demonstrated by "setting up the

basic ‘institutions’ or bureaucratic infrastructure needed to develop a response” to disease (Fox et al., 2011. p. 4). Examples of institutional commitment include the establishment of National Malaria Control Programs in many countries in South America and Africa. It is important to note that such institutional infrastructure should be “hard to undo... mechanisms that credibly lock in the state’s response” (Fox et al., 2011). Finally, budgetary commitment is measured by a government’s actual expenditure (not pledges) on disease prevention and treatment (Fox et al., 2011).

While these three indicators will help us to assess the level of political will to control malaria in Uganda and Rwanda, some assumptions have to be addressed, necessitating some modification to the way the concepts are applied. The association of public statements and/or the allocation of resources with political will particularly need to be qualified: the public statements of politicians can be mere duplicity if not backed with concrete policy actions; and the allocation of more resources can, in the presence of negative political will, mean expanding opportunities for corruption. Neither words nor money can be taken as evidence of positive political will without question, as the empirical chapters will show. For example, in 2005, the Global Fund suspended its support to Uganda for alleged misuse of funds intended for malaria control. The Fund also suspended two malaria grants to Mali in 2010, and imposed restrictions on Cote d’Ivoire, Djibouti, Mali, Mauritania and Papua New Guinea (Global Fund, 2010).

A related issue is the implicit assumption that more resources will always translate into better policy outcomes. This is not necessarily the case, as the literature on public health performance in resource-poor settings shows (eg. Cuba, and the Kerala state of India). That said, many studies point to a cost threshold (about \$12 per person per year for low income countries and \$22 for middle-income countries) below which it becomes impossible to implement minimum health packages (World Bank, 1993; Bobadilla et al., 1994). With these

caveats in mind, expressed and budgetary commitment will only be taken as indicators of political will when they can be seen to translate into policy implementation and resource allocation with built in accountability mechanisms. Accountability here means “holding individuals and organizations responsible for performance measured as objectively as possible” (Paul, 1992, p. 1047). The accountability sub-concept will be assessed based on evidence of consequences for action or inaction (eg. the application of credible sanctions). Finally, we consider malaria control activities to require the political will of a “set of decision makers” at both the central and local levels. Both levels of decision making will be considered in our analysis. We will interrogate not only how political will is generated, but also who generates it, and how it is disseminated to lower level structures and institutions.

The interconnectedness of political will, state autonomy and capacity

Treating these three conceptual variables as distinct would allow us to have clearly defined analytical categories, but we need to recognize the interconnectedness of the concepts. It is not possible to tie a poor policy outcome to the absence of one particular dimension of state effectiveness because the dimensions overlap and intersect. In the context of developing countries, for example, state autonomy from donors and external agencies could depend on the capacity of the state to negotiate and carve out policy space; having autonomy helps states to build and nurture their capacity. Similarly, exercising political will is, in many cases, contingent upon capacity and autonomy while in the absence of autonomy and capacity leaders cannot act upon their political will. Each of the three variables is a necessary but not sufficient condition for state effectiveness, while together they can support and explain state effectiveness. Notwithstanding these weaknesses in conceptualization, taken together these concepts offer increased analytical precision with which to examine the role of the state in public health promotion and maintenance in relation to external and internal actors (state autonomy), in order to show how state institutions and structures foster or

impede effectiveness (political will and state capacity).

Conclusions

This chapter has presented the analytical framework that guides this research. Given that a major goal of this work is to show that an effective state matters in achieving developmental and health policy goals, I have presented an overview of how the role of the state in society has evolved over the last few decades. The states' changing role in social and economic development and health promoting is described in terms of three distinct eras: in the first era, roughly between World War II and 1980, statist policies led to considerable economic development and improved health status in many countries; in the second, between the 1980s and early 1990s, developing countries were subjected to structural adjustment programs that allowed only a minimal role for the state and led to economic decay and the deterioration of health services and health status; in the third era, beginning in the 1990s, the crucial role played by states gained recognition. This renewed credit was due in part to the clear success of the "Asian Tigers". The main conclusion drawn from this discussion is that the state plays an essential role in achieving developmental and health policy objectives. The discussion makes clear, however, that for the state to play this important role in setting and achieving developmental objectives, it must be an effective state, led by goal oriented and committed leaders. An effective state is also characterized by autonomy (manifest in its ability to set official goals that do not unduly reflect the influence of powerful internal and external (donors) actors), and the capacity to pursue and achieve those goals. In this chapter, we have also discussed thoroughly the way these conceptual variables (i.e. political will, state autonomy and state capacity) will be applied to the case study. The application of these conceptual variables to our data allows us to conclude that the divergence in malaria policy outcomes in Uganda and Rwanda is in considerable measure due to the difference in

effectiveness of the two states (i.e. The Rwandan state is more effective than the Ugandan state in this policy area).

CHAPTER III

COMBATting MALARIA: THE EVOLUTION OF THE INTERNATIONAL POLICY RESPONSE AND ITS POLICY IMPLICATIONS FOR UGANDA AND RWANDA

This chapter will discuss the relationship between international and national malaria control policy. The work is divided into two main sections. The first section briefly discusses the history of malaria, describing the disease and the organisms that carry it. The second section outlines and contextualizes international policy vis-à-vis combatting malaria and the implications of global initiatives for Uganda's and Rwanda's national efforts to control the disease. Both sections highlight the challenges involved in fighting malaria. One challenge is that technical fixes have been privileged over political factors and this medicalization (use of medical knowledge by medical practitioners) of malaria control policies has undermined global efforts aimed at controlling and eliminating the disease in developing countries over the last century. Another challenge is the internationalization of malaria control efforts in malaria endemic countries and the complexity involved in translating ideas, money and programs that originate in the global policy arena (often dominated by big powers and supra international institutions) into malaria control and elimination efforts in malaria endemic countries in Africa and other regions. Given the important role of international actors in malaria control efforts in malaria endemic countries in Africa (including Uganda and Rwanda) I argue, in this chapter, that the interface between international and national policy responses sheds light on the achievements in and challenges of controlling the disease in Uganda and Rwanda.

Malaria: An ancient killer disease in Uganda, Rwanda, and the world

Malaria is a relentless disease that has been an enemy of humankind for centuries.

Historians who study the disease believe it has influenced human history. For example, the decline of city populations in Greece in the 4th century BCE is directly attributed to malaria (CDC, 2012). In Europe, the disease caused significant morbidity and mortality during the sixteenth and seventeenth centuries, while some parts of Europe (e.g. Sardinia in Italy) continued to suffer outbreaks of malaria (Italian name, *mala aria*, “bad air”) into the mid nineteenth century (Packard, 2007). In Australia, Port Essington was abandoned after a deadly outbreak of malaria in 1842, and the disease caused many deaths in Burketown in the mid nineteenth century (O’Gorman, 2017). Malaria was also the most prevalent disease in Korea in the mid-1800s (Yeo, 2011). It is estimated that, in the 1870s, some cities and villages of Bengal province in India lost as much as 25% of their population to malaria (Packard, 2007). In the U.S., malaria was a major problem in the South in the 1920s and 30s (Humphreys, 2001). During World War I, it is estimated that 1.5 million soldiers from disparate armies contracted malaria, “forcing evacuations of servicemen and weakening the military capacity of many national armies” (O’Gorman, 2017 p. 492).

In Rwanda, the search to cure and control malaria dates back to the early days of the twentieth century, when the country was a Belgian colony. During that period, the disease was known to the locals as ‘*Kafindo-findo*’ or ‘*Kapfura*’. There is some disagreement as to whether this disease was endemic, or was introduced into the Rwandan highlands by the Belgian troops. The Europeans of the day did not attribute the disease to mosquitoes. In the late 1930s, an epidemic on the plateau close to the Ugandan border was confirmed to be malaria by a colonial medical officer, although how malaria survived at such high altitudes (nearly 2000 meters above sea level) was considered a mystery (Jadin & Herman, 1946). The link between malaria and mosquitoes only became evident in the 1940s, when farming schemes introduced into the Rwandan highlands in order to prevent famine led to a spike in the population of mosquitoes followed by an outbreak of malaria (Jadin & Herman, 1946).

Malaria was considered to be “the dominating cause of illness and disability” in Uganda through the early 1900s, although morbidity and mortality rates for malaria were not compiled until World War II (Talisuna et al., 2015). Between 1930 and 1950, epidemics in rural townships and an increased incidence of malaria overall were reported; the disease killed an estimated 320 people in Uganda in 1948 (Talisuna et al., 2015).

Malaria was not always present in the tropics. In fact, there is little consensus about where and how malaria first emerged, although some scholars argue that the early development of agriculture in tropical Africa played a major role in its development in Africa and its subsequent distribution to the rest of the world through human mobility (Packard, 2007). What is not contested is that this disease has killed more people than any other disease and that it continues to claim the lives of hundreds of thousands every year (Packard, 2007). It is no wonder that those who study malaria and its history often give their books powerful titles such as “The Fever: How Malaria Has Ruled Human Kind for 500,000 years”, and “Mosquito: The Story of Man's Deadliest Foe”.

Mosquitoes and malaria: understanding the complexity of fighting both

To understand the complexity of fighting this disease one has to understand how the disease is transmitted, the organisms involved, and the interaction of these organisms. Malaria is a protozoan disease transmitted to humans through female *Anopheles* mosquitoes. There are five protozoan parasite species of the genus *Plasmodium* that cause malaria: *P. falciparum* (the most common parasite in Uganda and Rwanda), *P. vivax*, *P. ovale*, *P. malariae* and *P. knowlesi* (Arama & Troye-Blomberg, 2014 p. 456). Over 400 species of *Anopheles* mosquitoes exist, but only 25 of these species are capable of effectively transmitting the parasite to humans (White et al., 2014 p.1). The *anopheles* species that so efficiently transmit malaria “are long-lived and robust to environmental change, occur in high

densities in tropical climates, breed readily, and preferentially bite humans” (White et al., 2014 p.1). The transmission cycle of malaria is well documented: female *anopheles* mosquitoes pick up the parasite during a meal of human blood. The parasite then grows in the mosquito for a few days before being transmitted to another human host (CDC, 2016 see the figure 4).

Figure 4: Malaria parasite life cycle

The malaria parasite life cycle involves two hosts. During a blood meal, a malaria-infected female *Anopheles* mosquito inoculates sporozoites into the human host (1). Sporozoites infect liver cells (2) and mature into schizonts (3), which rupture and release merozoites (4). (Of note, in *P. vivax* and *P. ovale* a dormant stage [hypnozoites] can persist in the liver and cause relapses by invading the bloodstream weeks, or even years later.) After this initial replication in the liver (exo-erythrocytic schizogony (A)), the parasites undergo asexual multiplication in the erythrocytes (erythrocytic schizogony (B)). Merozoites infect red blood cells (5). The ring stage trophozoites mature into schizonts, which rupture releasing merozoites. Some parasites differentiate into sexual erythrocytic stages (gametocytes) (7). Blood stage parasites are responsible for the clinical manifestations of the disease.

The gametocytes, male (microgametocytes) and female (macrogametocytes), are ingested by an *Anopheles* mosquito during a blood meal (9). The parasites' multiplication in the mosquito is known as the sporogonic cycle (C). While in the mosquito's stomach, the microgametes penetrate the macrogametes generating zygotes (11). The zygotes in turn become motile and elongated (ookinets) (12) which invade the midgut wall of the mosquito where they develop into oocysts (13). The oocysts grow, rupture, and release sporozoites (14), which make their way to the mosquito's salivary glands. Inoculation of the sporozoites (1) into a new human host perpetuates the malaria life cycle.

Source: CDC, 2016

The potency of the transmission is determined by factors related to the parasite, the vector, the human host, and the environment. The most important parasite-related factors

include the genetic diversity of the parasite, and its ability to evade the human host's immune defenses “by constantly changing its surface”, making it very difficult to develop a generalizable anti-malaria vaccine (WHO, 2014; Tozan, 2004, CDC, 2016 paragraph 17). Our understanding of both the complex biology of the *P. falciparum* parasite, and the equally complex mechanisms giving innate or acquired immunity to its human host is very limited: too limited to meet the challenge of protecting humans against malaria (White et al., 2014; CDC, 2016). The complicated life cycle of the parasite in both its mosquito and human hosts helps it to adapt and develop resistance to anti-malaria drugs. Once the parasite develops resistance to an available drug, the consequences are deadly. For example, when the parasite developed resistance to chloroquine and sulfadoxine–pyrimethamine a few decades ago, it caused millions of deaths worldwide (White et al., 2014). The major concern today is that the parasite has developed resistance to the treatment regime (ACTs) currently available in Cambodia, Thailand, and Myanmar, and that this resistance will spread to Africa (White et al., 2014). Surveillance data to guide the detection of and response to parasite resistance is crucial in fighting malaria.

Figure 5: Target sites in the malaria lifecycle

Source: Arama & Troye-Blomberg, 2014.

Notwithstanding these challenges,

institutions such as the Bill and Melinda Gates Foundation (PATH Malaria Vaccine Initiative), the U.S. and U.K. governments, and the E.U. have made considerable investments in developing anti-malaria drugs and vaccines (Schwartz et al., 2012). While developing vaccines is challenging, it is possible. It is also the best way to fight infectious diseases as the success of vaccines against polio, measles, diphtheria, tetanus, rabies and others clearly show (Arama & Troye-Blomberg, 2014). Figure 5 shows target sites in the malaria lifecycle that could be interrupted by vaccines.

The two most important vector-related factors are the longer than average lifespan of the *Anopheles* mosquito (allowing the parasite sufficient time to complete its development), and the mosquito's preference for biting humans over other animals (CDC, 2016). The combination of these two factors makes the malarial mosquito a deadly vector in Africa, a continent that bears over 90% of the global malaria burden (WHO, 2014). The feeding and resting patterns of vector mosquitoes also have significance for disease control efforts. For example, it is generally acknowledged that mosquitoes that feed indoors are more “readily controlled by indoor spraying of IRS whereas mosquitos that feed outdoors are best controlled through source reduction (i.e. destruction of the breeding sites)” (CDC, 2016).

The most important human-host related factor is the level of immunity developed by individuals over repeated exposure to malaria in endemic areas where the transmission rate is stable. Both Uganda and Rwanda are characterized by stable and high malaria transmission rates. Indeed, some parts of Uganda have the highest transmission rates in the world (WHO, 2014). Paradoxically, individuals from malaria-free countries (e.g. Western Europe and/or North America), or those with limited or compromised immunity (e.g. children and pregnant women) are at higher risk of contracting malaria than people who develop immunity through constant exposure (CDC, 2014).

Since the epidemiology of malaria is determined by dynamics within the parasite-vector-host system, malaria control interventions often aim at breaking or manipulating the connection between these three organisms (Talisuna *et al.*, 2004). This approach has met with varying success, as we will discuss in the following section. As Karunamoorthi (2011) puts it, “to understand malaria today, it is important to acknowledge the history of the disease and previous global efforts to control and eradicate it” (p. 1609)

Combatting malaria

The early years and the eradication era of the 1950s and 1960s

Until the first half of the 19th century, 90% of the world’s population lived in malarial areas, and malaria was endemic in countries in Asia, Europe, America, and Africa (with the exception of the Pacific islands east of the longitude of Vanuatu). Since then the malaria map has shrunk considerably (see figure 6). Factors that played an important role in reducing the burden of malaria in Europe and North America in the second half of the nineteenth century include the agricultural transformation that took place due to improved land management, and improvements in housing (Packard, 2007). By the end of the 19th century, improved knowledge of the malaria parasite and its mode of transmission helped Western European countries to develop strategies aimed at controlling the mosquito population, and to improve access to the diagnosis and treatment of the disease, leading to the elimination of malaria in Western Europe before the second World War (Mendis *et al.*, 2009).

Figure 6: Global distribution of malaria

Source: K. Mendis et al. (2009)

Combatting malaria in a systematic way continued in the United States (U.S.) and Europe through the 20th century. In the U.S. in the mid-1940s, the Centre for Disease Control and Prevention (CDC) was created to combat malaria. Its principal strategy was the use of pyrethrum extract to kill mosquitoes on household walls. The discovery of chloroquine, an effective anti-malarial drug, by European and American scientists was a significant breakthrough, as was the development of dichloro-diphenyl-trichloroethane (DDT) in the early 1940s: “perhaps the most important change in the malaria control landscape” (Najera et al., 2011). These two discoveries were largely responsible for the elimination of malaria from the U.S. and many European countries in the early 1950s, making 1940 through 1950 an important decade for malaria control in the Western hemisphere.

With the success of DDT and the advent of high efficacy anti-malarials such as chloroquine, the WHO launched a worldwide eradication program at the 1955 World Health

Assembly (WHA). Although it was optimistically called “worldwide”, the program focused on the Americas, Europe, Asia, and Oceania (WHO, 2011). The key strategies adopted by the eradication program included: targeting adult malaria vectors through the large-scale application of DDT in indoor residual spraying operations; ensuring the wide-scale availability and use of chloroquine, a cheap and (at the time) effective synthetic 4-aminoquinoline antimalarial drug; developing an efficient surveillance system; and improving the overall living standard of the population (WHO, 2006). The goal of the campaign was “attacking the relevant *anophelines* with sufficient intensity to interrupt malaria transmission for three years. At the end of this attack phase, parasite levels in the human population would be greatly reduced and spraying activities could be halted without fear of renewed transmission, even though vector populations remained” (Packard, 1997 p. 279).

The eradication program registered enormous success. The disease was eliminated from the rich countries of Europe and the Americas, and a substantial reduction in the number of malaria cases was also seen in South Asia (WHO, 2006; 2006a). In India, mortality rates were reduced to zero during the eradication campaign, while in Sri Lanka the burden of malaria was reduced from 2.8 million cases in 1946 to fewer than 20 cases in 1966 (Mendis et al., 2009). In Africa, pilot eradication programs were implemented in Ethiopia, South Africa, Zimbabwe, and in urban centres such as Kampala with colonial powers showing an increased interest in controlling the disease in other parts of Africa.

In 1950, the WHO organized an international conference in Kampala to discuss malaria control in tropical Africa (WHO, 1951). At that conference, the British governor of Uganda, Sir John Hathorn Hall, stated in his opening remarks that while malaria was eliminated from Kampala, its prevalence remained high outside the capital (WHO, 1951). Between 1950 and 1968, the British administration launched pilot malaria eradication

programs in Kigezi and Masaka districts built around IRS with DDT and single doses of Chloroquine (CQ). The pilot projects reported significant declines in the incidence of malaria (Talisuna et al., 2015).

The Belgian authorities in today's Rwanda also implemented control efforts using DDT in the 1950s (Meyus & Bervoets, 1958). Treatment at the time consisted of quinine sulphate made from *Cinchona* plant, which was only effective against some species of mosquito (*Anopheles funestus*) while others (*Anopheles gambiae*, *Anopheles christyi*, *Anopheles squamosus*) continued to breed. Even so these early treatment efforts were deemed successful when malaria cases decreased to less than 7% from 51% in treated areas, while malaria incidence rates continued to climb, reaching 70% among untreated populations (Jadin, 1952). Control efforts also led to the decline of malaria incidence rates among infants: falling from 49% in 1952 to less than 3% by 1957 (Meyus & Bervoets, 1958). Overall, between 1956 and 1962, eradication campaigns across Rwanda were successful in reducing the number of malaria cases (Meyus & Bervoets, 1958). Two methods recommended for malaria control were the use of insecticides at altitudes over 2000 metres, and a combination of insecticides and anti-malarial drugs at lower altitudes (Meyus, Lips & Caubergh, 1962).

The initial success of the global eradication program was achieved “by combining wide-scale use of efficient intervention with continuous government commitment to maintain control and efficient surveillance systems” (WHO, 2006). While “[t]he inauguration of WHO's Global Malaria Eradication Programme raised the hope that malaria might at last be eliminated as a source of disease and underdevelopment” (Packard, 1997, p. 280), such optimism was short-lived. A resurgence of malaria was reported in many countries in the late 1960s. Malaria cases increased in India and Sri Lanka; progress was limited in Indonesia, Afghanistan, Haiti, and Nicaragua; and the eradication program was unable to address the disease in tropical Africa (CDC, 2012). Proffered reasons for the resurgence were manifold:

drug resistance; pressure from environmentalists in the U.S. and Europe to stop funding for DDT, leading to a decline in the manufacturing of the chemical; lack of community participation in the eradication programme; the movements of populations due to wars and commerce; and the inadequate health infrastructures of some countries (Bate, 2008).

WHO malaria experts acknowledged that the drive to eradicate the disease had overlooked the need “for a highly efficient organization to carry out the Programme, [an endeavor] which was clearly beyond the capabilities of many of the highly endemic countries” (WHO, 2006, p.10). Bruce-Chwatt (1980) argues that the lack of resources for malaria eradication in Third World Countries was one of the main reasons for the programme’s failure. Alonso et al. (2011) have argued that the eradication program

..was predicated on an assumption that the available knowledge and tools were sufficient to achieve worldwide eradication. A single strategy that would work everywhere—“one size fits all”—proved to be ill-founded because it underestimated the challenges of dealing with the extremely efficient vectors in Africa (*An. gambiae*) and with transmission by outdoor-feeding mosquitoes that were not susceptible to attack by indoor residual insecticide .(p. 2)

By the mid-1960s, the global eradication program was suffering severe financial challenges as “the US contributions to the WHO Malaria Special Account, which represented more than 85% of the total, were stopped in 1963”, reducing the capacity of the WHO and malaria endemic countries to respond effectively (Najera et al., 2011 p. 4). Within such constraints, the international health community could not sustain its eradication efforts, leading to the abandonment of the WHO eradication program in 1969 (WHO, 2006; Bate, 2008).

During the same period, malaria control efforts ceased in both Uganda and Rwanda, showing the link between international and national policy responses. In Rwanda, in addition to the reasons for the eradication programme’s failure at the global level discussed above, the movement of people, particularly pastoral communities moving between Rwanda and Congo, undermined the control efforts undertaken by the Belgian administration in the mid and late

1950s (Chardome, Peel & Lambrecht, 1956). In Uganda, the eradication efforts in the pilot districts of Kigezi, and Masaka were abandoned in part due to shortages of both human and financial resources, but also because of a spike in cases of malaria imported from areas near the two districts which experienced malaria outbreaks (Talisuna et al., 2015).

In the literature discussing the post-mortem evaluation of the eradication programme, some have criticized the focus on technical justifications for its failure (Black, 1980; Farid, 1980; Packard, 2007). For example, Packard (1997) argues “[s]tudies that have examined the failure of malaria eradication have focused on the various technical, organizational, and financial problems which hampered the program. While these critiques are valid, they lose sight of the wider political, economic and cultural context within which eradication was conceived and executed” (p. 279).

The International policy response from 1970- 2000: Three deadly decades for Uganda, Rwanda and the world

After the WHO abandoned the eradication programme, its policy focus shifted to malaria control,⁸ particularly in malaria endemic countries with less hope of eradicating the disease. This reorientation to control did not go very well for a variety of reasons: the global economic crisis in the 1970s resulted in an increase in the price of insecticides, further constraining the ability of malaria endemic countries to introduce or sustain malaria control measures (Trigg & Kondrachine, 1998); international institutions such as UNICEF shifted their programming from a focus on malaria to more general health improvement programs (Najera et al., 2011); and a ‘La Niña’ year in 1975-76 contributed to severe malaria outbreaks in several countries, particularly in the Indian subcontinent and in Turkey.

A complicating factor that became evident during the 1970s was the attrition of professional staff (Najera et al., 2011), such that the eradication programme’s success in

⁸ “Malaria control is reducing the disease burden to a level at which it is no longer a public health problem” (Mendis et al., 2009, p. 803).

eliminating malariologists became a wry joke in the malaria community. The WHO, for example, transferred malaria staff to other divisions such as communicable diseases and environmental sanitation (Farid, 1980). Additionally, many countries in tropical Africa dismantled or scaled back their malaria control programmes in favour of multi-purpose health services. Many malaria experts criticised the move to stall malaria eradication efforts until the health infrastructure in Africa could be strengthened. In a letter written by Dr. F. L. Soper in 1974 to a malaria-expert colleague, Dr. M. A. Farid, Soper states: “I feel that the malariologist owes a great deal to the people now living and believe the delay in handling malaria until it can be done by local health units is needlessly sacrificing the generation now living” (cited in Farid, 1980, p.16).

From the 1970s to the early 1990s, the international health community resigned itself to the view that their focus needed to be given to technical issues and the development of new and more effective malaria control tools. To this end the WHO, the World Bank, and the United Nations Development Program (UNDP), launched the Special Program for Research and Training in Tropical Diseases (TDR) (Najera et al., 2011). The focus on technical issues led to investments in vaccine development, advances in anti-malarial drugs, as well as vector control and insecticide-treated nets. In 1972, a Chinese scientist, Tu Youyou, discovered *artemisinin*, a plant extract, and a safe and effective treatment for malaria. *Artemisinin*-based combinatory therapies (ACTs) came into widespread use (Barnett, 2016). Despite these technical advances, the international health community and malaria endemic countries did very little to control the disease throughout the 1980s and 1990s. Many countries, including India, Pakistan, and Afghanistan, faced shortages of anti-malarial drugs after the U.S. and UNICEF withdrew support for malaria eradication programs in those countries (Farid, 1980; Tanner & de Savigny, 2008).

In Uganda, the 1970s and '80s was a period of civil war and political instability. The health sector in Uganda, arguably one of the best in Africa before independence, collapsed, and malaria control efforts ceased (Talisuna et al., 2015). In Rwanda, although the literature does not specifically correlate the global policy environment with in-country challenges to malaria control in those decades, it is possible to link the lack of financial and technical support available to the country under those policies with the challenges experienced by Rwanda. Significantly, Rwanda's challenges included poor surveillance of malaria outbreaks and the inability to replace Chloroquine (CQ) as the first line of treatment when the parasite developed resistance to the drug (Gascón et al., 1985).

Overall, the global burden of malaria dramatically increased in the 1970s and 1980s. During this period, it is estimated that the number of malaria deaths and cases globally reached between 1.5 and 2.7 million and between 300 and 500 million annually respectively (Trigg & Kondrachine, 1998). In the same period, malaria cases surged in Rwanda (in some areas malaria-related mortality rates for children under the age of five rose by 564%), and malaria spread to areas that had not been malaria endemic in the past (Loevinsohn, 1994). In Uganda, a resurgence of the disease was reported across multiple regions of the country during the same period (UMOH, 2001; Talisuna et al., 2015).

The increased burden of malaria during the 1970s and '80s spurred a debate about what had gone wrong and what should be done next to control malaria. Farid (1980) argues that the resurgence of malaria underscored the need to reactivate the eradication program. He asserted that anything less than eradication as an objective would suggest that the world was not yet serious about malaria and warned that “a day will come when the havoc inflicted on the human race by malaria will create in man anew the determination to eliminate this scourge from the earth” (p. 21). Reacting to Farid’s admonition, Black (1980), Bruce-Schwatt (1980), Gabaldon (1980), Michel (1980), Ray (1980), Russell (1980), and Sambasivan (1980)

all echoed similar warnings and urged the WHO to reverse course and replace its passive role with the sense of urgency the dire global malaria situation deserved (to review this debate see Farid, 1980).

These sentiments were widely shared and a sense of urgency did inform policy in Central and South America such that the fight against malaria became a national priority for those countries (Farid, 1980). The policy independence of the Pan American Health Organization (PAHO), and its role in advocating for a commitment to control malaria, is cited as a factor in ensuring firm national commitments in Central and South America (Farid, 1980). Lee M. Howard (1980), the director of the USAID health office at the time, cautioned against the rush to reactivate the malaria eradication program, calling for a more holistic approach to the problem that recognized the role of development and health planners in controlling malaria. His approach subtly criticized Farid and other malariologists for their focus on technical fixes. The debate this critique generated created momentum and put pressure on the international health community to act, leading to renewed commitments to fight malaria in the 1990s.

This pressure was also felt in Africa. In 1982, the WHO initiated the African Child survival initiative, Combatting Childhood Communicable Diseases (CCCD) which was implemented in twelve African countries including Rwanda (Bremam and Campbell, 1988). Although one of the goals of the initiative was to reduce child mortality due to severe malaria, “half the children remained untreated after a febrile episode” for reasons that are not clearly articulated in the literature (Bremam & Campbell, 1988 p. 615). The high burden of malaria Rwanda experienced in the late 1980s was attributed in part to climate conditions linked to global warming (Coosemans et al., 1992). In certain parts of Uganda, the German Development Corporation supported studies on the epidemiology of malaria (Talisuna et al., 2015). The Ministry of Health also conducted a landmark study and found that nearly 16% of

life years lost to premature death were due to malaria (UMOH, 2001). This finding prompted the Ministry of Health, in 1995, to establish a Malaria Control Unit within the Directorate of National Disease Control (UMOH, 2005). A year later, a five-year National Malaria Strategy Plan (1996-2001) was developed, with the aim of reducing morbidity (e.g. a 30% reduction in malaria incidence in pregnancy) and mortality (e.g., a 50% reduction in malaria related child mortality), and minimizing the impact of malaria on the social and economic wellbeing of Ugandans (Okiro et al., 2011).

The Ugandan strategy contained the following key priorities: 1) improved management of malaria through the rational use of chemotherapy in community, public and private health facilities; 2) improved community awareness; 3) the reduction of mosquito contact by encouraging the use of personal protection; 4) strengthening management capacity both centrally and at the district level; and 5) the integration of malaria control activities within other health sector priorities (Talisuna et al., 2015 p. 50). Although evidence for the protective efficacy of Insecticide Treated Nets (ITNs) was well documented in the 1990s in Africa, the leadership of Uganda's Ministry of Health was reluctant to scale up the provision and use of treated nets for reasons that are not clear from the literature (Talisuna et al., 2015). Whatever the rationale might have been, ITNs were missing from the 1996 malaria strategy, which placed emphasis instead on environmental management and chloroquine as the first line of treatment (Talisuna et al., 2015). The policy also recommended chemoprophylaxis for first and second time pregnancies. The implementation of this strategy did not result in a significant reduction in malaria (Talisuna et al., 2015). In 1998, the Minister of Health, responding to a question in parliament, stated that malaria killed 100,000 Ugandans per year, although reliable database did not exist at the time (Talisuna et al., 2015).

To address the gap in malaria data, the Ugandan MOH created a central malaria database and assembled district morbidity summaries to create a data set robust enough for

effective malaria control programming. The Ministry also conducted a baseline study and found that malaria outpatient visits had increased from 25-40% in 1992/3 to 29-50% in 1999 (MOH, 2001). Reasons cited for the increase included the low take-up (9.8%) of ITNs, the lack of funding, the delayed treatment of children under 5, self-medication, and the failure of CQ treatment (UMOH, 2001). It is important to note that during this period Kabale and Kisizi regions also witnessed regular malaria outbreaks primarily due to heavy rains caused by El Niño (Talisuna et al., 2015). Responding to these epidemics, the WHO provided technical support to the MOH to develop a ‘Malaria Epidemic Early Detection System’ (MEDS) at the national level, and Malaria Early Warning Systems (MEWS) at the district level to monitor outbreaks. At the turn of the 21st century, Uganda’s malaria situation remained dire, but there was a renewed commitment to malaria prevention and control at the global level as well as recognition of malaria as a major problem at the national level.

Renewed commitment to addressing malaria at the international level resulted in the inclusion of malaria control among the UN’s Millennium Development Goals. The UN’s development agenda committed to halting and reversing the incidence of malaria by 2015. Renewed international focus also resulted in multilateral initiatives including the Roll Back Malaria Partnership between WHO, UNICEF, UNDP and the World Bank in 1998. African leaders also endorsed the RBM initiative in Abuja, Nigeria in 2000. Forty-four malaria-endemic countries who attended the African RBM summit, including Uganda and Rwanda, supported the targets of reducing malaria-related deaths (Snow & Marsh, 2010). The RBM’s plan stipulated that “at least 60% of those with malaria would have access to treatment within eight hours of the onset of symptoms; at least 60% of at-risk pregnant women would receive preventive drugs; and at least 60% of other at-risk groups, including children younger than 5 years, would be protected by insecticide-treated bed-nets” (The Lancet Editorial, 2005 p. 1439).

International policy response in the 2000s and 2010s: Roll Back Malaria (RBM)

The RBM initiative was launched at a challenging time in the struggle to gain control over malaria at the global level. First, a clear and overarching global malaria control strategy was lacking: prevention policies were limited and targeted only to vulnerable populations, and the efficacy of anti-malaria drugs was very low due to the parasite's developing drug-resistance (The Lancet Editorial, 2005). Second, a limited number of international development actors were involved in combatting malaria. Third, there was an acute shortage of funding: it is estimated that only \$100 million was available for malaria control globally (Yamey, 2004). The initiative faced the challenge of tackling these bottlenecks in order to reduce malaria deaths by half by 2010. By 2003, RBM's advocacy work drew in an expanding number of partners, bringing together over ninety-three multilateral and bilateral agencies, government organizations, non-governmental organizations, and private companies, with the result that spending on malaria control doubled (The Lancet, 2005). Changes in the global malaria funding landscape, including the advent of the Global Fund in Africa's malaria endemic countries, made more resources available for malaria control. For example, Uganda received a \$23 million grant from the GF in 2002, and a further \$150 million in 2004 (Global Fund, 2016). Rwanda was also one of the first beneficiaries of the Global Fund grants in 2003. In fact, Rwanda received a total of \$10 million in malaria-directed funding from various donors in 2003 (RNHA, 2006).

Despite the increase in partnerships and in funds earmarked for malaria control, mortality from malaria in Rwanda did not abate, and was even higher in 2004 than it had been in 1998 when the initiative was launched (Yamey, 2004). The number of confirmed malaria cases was estimated at 35,688 during the initial period of RBM (i.e 2000-2005) as compared to 8,517 cases during the 2005 to 2010 period of the RBM scale up (Karema et al., 2012). Similarly, country-wide malaria-related mortality and morbidity rates in Uganda did

not show significant improvement during the early years of RBM, although environmental management programs might have led to the lower number of malaria cases in Kampala and Jinja in 2004 (Talisuna et al., 2015).

An external review of the RBM initiative in 2005 argued that, if not improved, the initiative would fail to achieve its goals due to poor leadership, weak coordination mechanisms and lax accountability structures, compounded by a lack of clarity about the roles and responsibilities of partners resulting in inadequate and conflicting technical advice for malaria endemic countries (The Lancet, 2005). Stated differently, a “key part of the problem was that RBM had increased awareness but failed to spur action” (Bates, 2008 p. 4). Another major problem was turnover among the program’s leadership (Alilio et al., 2014). Additionally, questions were raised about the efficacy of existing malaria control methods. For example, the continued use of outdated drugs such as chloroquine in many parts of Africa did not help in reducing the burden of malaria under RBM in the early 2000s (Attaran et al., 2004).

The beginning of progress

At this critical juncture, the malaria community underscored the need to use the effective and evidence-based malaria control prevention and treatment tools then available to combat the disease: tools such as ITNs, IRS, IPTp and ACTs. It was argued that if these strategies were well implemented, results could be achieved (The Lancet, 2005). Subsequently, the WHO reversed its 1997 ban on the use of DDT, publishing guidelines that encouraged the use of IRS to control the disease (Bates, 2008). Furthermore, new leadership at the WHO’s Global Malaria Programme introduced key reforms to improve the initiative. Arata Kochi created a new WHO malaria department to provide technical advice to RBM partners; recommitted the organization to IRS (including DDT) as a key malaria control strategy for Africa; successfully lobbied the World Health Assembly (WHA) to pass

resolutions committing WHO member countries to stop the production of artemisinin monotherapies in order to “stem the potential development of parasite resistance to artemisinin”; and produced treatment guidelines (Bates, 2008 p. 5).

This coincided with an improved international commitment in the late 1990s to tackle poverty and poor health following intense campaigns by civil society and Non Governmental Organizations (NGOs) including the Jubilee Debt Coalition, which agitated for debt relief so that developing countries could tackle poverty issues and HIV/AIDS (Jochnick & Preston, 2006). The use of lower-cost generic antiretroviral drugs in Brazil also emboldened the campaign’s resolve to agitate for affordable drugs to tackle HIV/AIDS. Religious groups in the US, who opposed the use of condoms, relented to this pressure, creating more space for a US response to HIV/AIDS and other infectious diseases in the late 1990s (Merson, 2006). The international community’s renewed commitment to support health status improvement and contribute to the overall development endeavors of developing countries coalesced at the G8 summit in Japan in 2000 (Ministry of Foreign Affairs of Japan, 2000). The summit discussed and passed resolutions supporting debt relief for developing countries, stimulating economic recovery, and setting and achieving developmental goals aimed at lifting people out of poverty. G8 members also identified population health as “key to prosperity” and adopted a resolution that called for the creation of partnerships to fight infectious diseases such as HIV/AIDS, TB and Malaria.

This G8 summit push led to the formation of the Global Fund Against AIDS, Tuberculosis and Malaria in 2002, and the U.S. President’s Malaria Initiative (PMI) in June 2005, which signaled the political as well as financial commitment of the international community. In 2005, the Global Fund earmarked \$1 billion specifically for global malaria control (Greenwood et al., 2005). This initiative increased the financial resource pool for fifteen select African countries to \$1.5 billion over five years (Bates, 2008). By 2009,

funding for malaria programmes in ninety malaria endemic countries reached U.S. \$2.2 billion (the Global Fund contributed 47 %). By 2012, two thirds of the Global Fund's \$3 billion annual budget went to TB and Malaria (Global Fund, 2014). Of the non-Global Fund donors, "the USA Presidential Malaria Initiative contributed around 60%, the World Bank 7%, and the United Kingdom direct bilateral funding through the Department for International Development 6%" (Korenromp et al., 2013, p.3). The Bill and Melinda Gates Foundation contributed over U.S. \$8.5 billion to global health efforts, including malaria control (McCoy et al., 2009). Close to 72% of global malaria funding has gone to the WHO Africa Region (Korenromp et al., 2013). For example, Uganda received over \$120 million between 2011 and 2016 from the Global Fund, and over \$279 million between 2005 and 2015 from PMI (PMI, 2015). Similarly, Rwanda received U.S. \$259 million from the Global Fund over a ten year period, and \$163 million between 2006 and 2015 from the PMI (Global Fund, 2016; PMI, 2015).

Since 2005, the RBM initiative has developed strategies including the 2008 Global Malaria Action Plan, and improved the use of evidence-based policy to inform action. In 2011, the WHO undertook a major review of the policy-setting process to improve the use of evidence-based knowledge in combatting malaria. This review resulted in the creation of the Malaria Policy Advisory Committee (MPAC) in the same year. The mandate of this body is "to provide evidence-based strategic and technical advice to RMB and WHO on malaria control and eradication" (WHO, 2012). The committee meets twice a year and publishes its evidence-based policy recommendations in the *Malaria Journal*, an open access journal. The committee is supported by three standing Technical Expert Groups (Chemotherapy, Drug Resistance and Containment, and Vector Control), and a time-limited Evidence Review Group tasked with providing recommendations (WHO, 2012). The WHO takes the recommendations of the committee seriously. For example, in 2012 it accepted the

committee's recommendation to adopt a new policy on Seasonal Malaria Chemoprevention (SMC) and updated existing policies for IPTp, and single-dose primaquine as a gametocytocide for the treatment of *Plasmodium falciparum* malaria in selected settings (WHO, 2012).

In 2014, the committee produced guidelines on combining residual spraying and long lasting insecticidal nets, the management of old LLINs, the control of residual malaria parasite transmission, and malaria diagnostics in low transmission settings. Often, malaria endemic countries adopt these policies as their national malaria control policies. For example, “by the end of 2013, ACTs had been adopted as national policy for first-line treatment in 79 of 88 countries where *Plasmodium (P.) falciparum* is endemic” (WHO 2014, p. xi). Uganda adopted the distribution of ITNs/LLINs free of charge for all age groups in 2006; IRS (using DDT) in 2005; and ICTs free of charge in public health facilities in 2006. Similarly, Rwanda adopted these interventions and policies between 2004 and 2009. Structurally, both countries also created National Malaria Control Programs in the late 1990s, and have put in place technical working groups that have a similar function to the WHO malaria technical expert groups, which suggests that national policies were aligned with the international policy response.

Adopting evidence-based global policy and strategy, bringing various partners together, and mobilizing resources has, since 2005, led to the scale-up of malaria control interventions. During the past decade, the adoption of ITNs increased from 2% in 2004 to 44% in 2013 (WHO, 2014). Between 2012 and 2014, over 427 million LLINs have been provided to malaria endemic countries in sub-Saharan Africa (WHO, 2014). In Uganda and Rwanda specifically, coverage of LLINs reached 60% and 90% respectively by 2014. Access to diagnosis and treatment has also improved. National malaria control programmes in malaria endemic countries distributed over 160 million Rapid Diagnosis Tests (RDTs) in

2013 compared to about 200 000 in 2005, while the number of ACTs purchased increased from 11 million in 2005 to 392 million in 2013 (WHO, 2014). The scale-up led to a reduction in the number of malaria cases and deaths globally over the past decade. Recent statistics from the WHO indicate a 47% decrease in malaria deaths worldwide, and a 54% decrease in deaths in the Africa region specifically (WHO, 2014). In Rwanda these efforts reduced malaria deaths from an estimated 28/100,000 to 4 deaths per 100,000 (WHO, 2015). In Uganda, there was a slight improvement between 2010 and 2015, but the overall death rate has not changed since 2006 (WHO, 2015). It should be noted that in terms of the WHO's division of Africa into four sub-regions, Uganda is in the South East beside Africa's malaria control success stories (i.e Rwanda, Zanzibar-Tanzania, Eritrea, Ethiopia, and Zambia).

The reduction of the malaria burden has triggered a new conversation about malaria eradication. In 2007, Bill and Melinda Gates put malaria eradication back on the international health policy agenda. Within months, the WHO brought together 250 people including individuals from malaria endemic countries, RBM partners, and malaria experts, in order to articulate a shared understanding of the goals, strategies, and activities of the RMB partners (WHO, 2014). The consultative process led to the adoption of the Global Malaria Action Plan (GMAP) in 2008 which set the ambitious goal of eradication, although control and elimination are recognized as two important phases of the plan (RBM, 2008). Reacting to the GMAP, Bill Gates asserted: "I believe that if you show people a problem, and then you show them the solution, they will be moved to act. The Global Malaria Action Plan lays out an achievable blueprint for fighting malaria - now it's time for the world to act" (quoted in RBM, 2008 p. 19). Bill Gates' call for eradication, and the RBM's ambitious agenda, were partly inspired by malaria elimination success in many countries including Mauritius, the United Arab Emirates, Egypt, Morocco, Syria, Armenia, and Turkmenistan, which were all malaria endemic countries (Mendis et al., 2009).

Malaria experts, however, were only cautiously optimistic. Greenwood (2009) argued that the global public health and development community and malaria endemic countries should focus on the elimination of malaria (cessation of local transmission) convinced that eradication in the medium term with the available malaria control tools is not feasible. Other scholars are happy to see eradication back on the global health agenda, but call for a broader consensus, and an approach that takes the varying contexts of malaria endemic countries into account, laying out the programmatic phases of a continuum, from control to eradication (Tanne & de Savigny, 2008; Feachem & Sabot, 2008; Mendis et al., 2009). Alonso et al. (2011) also contend that eradication will remain a dream for a long time for various reasons including operational challenges, and the heterogeneity of transmission dynamics. Liu and associates (2013), however, argue that the dream itself is important (i.e eradication) as a goal that should be pursued through “progressive elimination, aggressive control in the high-burden areas, and eventual eradication’ (p.e2). Debates about setting an agenda for malaria control, elimination or eradication rage on, but there seems to be emerging consensus that the long term goal should be a world free of malaria (WHO, 2015).

The African Leaders Malaria Alliance, through the African Union, recently adopted a roadmap whose main goal is to eliminate malaria in all African countries by 2030 (African Leaders Malaria Alliance, 2016). Many malaria endemic countries in Africa have embraced the goal of eradicating malaria. Rwanda’s Malaria Strategic Plan 2013-2018, for example, set the ambitious goal of eradicating malaria as part of the nation’s agenda of socio-economic transformation (PMI, 2016). In Uganda, the Uganda Malaria Reduction Strategic Plan 2014-2020 envisions a malaria-free Uganda attaining near zero malaria deaths by 2020 (UMOH, 2014).

The goal of a world ‘free-of-malaria’ is an idea fueled by recent success in reducing the burden of the disease globally, but it is important to note that the discourse is dominated

by ideas and actors from the Western donors and international agencies who design global health initiatives, including malaria control initiatives. Some scholars have concerns about the long term implications of these global health initiatives on national health systems, and national malaria control response in malaria endemic countries (Oomman et al., 2007; Doyle & Patel, 2008). Garrett (2007), for example, argues that while Western donor countries and individual donors such as Bill Gates and Warren Buffet have mobilized enormous resources with which to tackle specific diseases such as malaria, global health initiatives will not lead to sustainable results until delivery systems are built within Third World countries. She is convinced that corruption and resource leakage must be tackled at both the national level (to ensure that the money reaches the hospitals and clinics where it is needed), and the global level, where a considerable amount of the money is ‘trapped’ due to bureaucratic bottlenecks. Garrett (2007) also points out that many previous global health initiatives “have been designed, managed, and executed by residents of the wealthy world”, which might mean that interest in such initiatives are driven by global interests not shared by recipient countries (Garrett, 2007, p. 16).

Conclusions

In this chapter, I have provided an overview of the international policy response to malaria and its implications for Uganda’s and Rwanda’s national policy responses to the malaria problem. The chapter underscores three major points. First, it highlights the challenges inherent in fighting a disease that has been with humankind for a long time. Second, the chapter makes clear that technical solutions have overshadowed other factors, such as political factors, in efforts to control the disease. Third, it is clear from the literature reviewed in this chapter that ideas, money and programmes that originate in the Western world, and/or within international institutions such as the WHO, drive global efforts to

combat malaria. It is evident that shifts in international politics shape national commitments and approaches to tackling malaria. This complex relationship means that to understand the history of malaria control and the successes and failures of malaria control interventions within malaria endemic countries, national policy has to be situated within the global policy response. As shown in this chapter, Uganda's and Rwanda's national malaria policy responses are to a degree globally driven, sometimes undermining national delivery systems. This assertion is important, given that a major objective of this research is to understand the interaction between domestic and international actors involved in malaria control in both countries.

CHAPTER IV

POLITICAL ECONOMY OF UGANDA AND RWANDA: HISTORICAL AND INSTITUTIONAL CONTEXT

States and their institutions evolve within an historical context. In order to understand a state's performance (effectiveness) it is necessary to become familiar with both the historical context from which it emerged, and the character of the institutions it developed. In this chapter, we discuss the political economy of Uganda and Rwanda, focusing on its relationship to state effectiveness in each case. We pay particular attention to the key actors in both Rwanda and Uganda, and examine how they deploy their power to achieve developmental objectives. Examining their histories, we can see the notion of "path dependence" manifest in their performance and development. As Evans (1995) argues, "Ideas about variations in state involvement have to be built on the historical examination of particular states. States are the historical products of their societies" (p.10). In other words, we must recognize the interaction between state and society in order to understand the contextual factors that influence state performance. This chapter shows that accepted political settlements and stability are prerequisites for effective state performance in the health sector. Reviewing their histories reveals that both countries performed well in the health sector for specific historical periods during which the regimes in power had a monopoly over violence (i.e. the state had sufficient political and coercive capacity to either negotiate with or suppress dissent), and key political leaders, particularly the presidents, were committed to setting a developmental agenda and building structures and institutions to ensure that implementation and accountability work were done effectively.

Starting with Uganda, the first section of this chapter looks back at the evolution of each state, from traditional political systems, through colonial rule to the post-independence

period. This section is divided into three parts: The first provides an overview of how each society was organized and governed before colonial powers established administrations. The overview sheds light not only on the level of development of each country before and under colonial rule, but also on the roots of the conflict which would have major implications for later state stability and performance. The second part explores state/society relations and state performance after independence. During this period, civil wars in Uganda and genocide in Rwanda destroyed ethnic harmony and razed state institutions. The third part assesses the legacy of these conflicts on the health systems and health status of each country.

The second section of this chapter offers an analysis of the current governance of each state, with particular emphasis on how they have achieved political stability and are building ethnic harmony by adopting decentralized systems of governance, and undertaking public sector reforms aimed at improving state performance. As part of this discussion I look at the states' performance records vis-à-vis their ability to achieve stated development goals. We also assess state performance in the health sector, which provides important contextual analysis for evaluating state performance in malaria control, the particular focus of the empirical chapters below.

Uganda

Uganda, also a landlocked country in Sub-Saharan Africa, is bordered by Kenya to the east, Rwanda and Tanzania to the south, the Democratic Republic of Congo to the west and Sudan to the north. Its population is estimated at 37.6 million, and is projected to reach 68.2 million by 2040. Uganda's population growth rate (3%) is one of the highest in the world (Uganda Bureau of Statistics, 2017). According to the Bureau of Statistics, 86% of Ugandans live in rural areas, but urban population growth is estimated at 4.4 percent per annum. The high rate of population growth puts enormous pressure on the country's social sector, particularly education and health services. The following section on the political

economy of Uganda will not do justice on the country's rich and complex socio-political and economic history. Its focus is limited to factors that could bear on the state's effectiveness including stability, governance, and corruption.

From kingdom to colonial rule

There was no centralized authority in Uganda before it became a British protectorate in 1894; instead, there were several kingdoms that served as political systems (Ibingira, 1973). The kingdoms were culturally, linguistically, and economically diverse; mostly Bantu in the South, including the Buganda, Ankole, Bunyoro, and Toro (Ibingira, 1973). Population groups in the north, mostly Nilotic, were characterized by small scale and kinship-based traditional institutions (Ibingira, 1973). We will not be able to review the history of these kingdoms, or the population groups that had no kingdoms, within the scope of this brief overview but one feature of this pre-colonial history sheds light on the later formation of the Ugandan state and will be considered. We will look briefly at the relationship between the pre-existing populations and their evolution under British colonial power and after independence.

The pre-colonial history of Uganda is largely defined by the peaceful co-existence of the various population groups, although occasional conflicts have been recorded (Ibingira, 1973). Interethnic cooperation is manifest in the smooth flow of animals and goods such as salt, iron, and clothing from one area to another (Meagher, 1990). Writing about the cooperation between population groups in the realm of politics and the judiciary, Denoon (1982) notes,

at the court of the Omukama one might find Alur princes or their representatives bringing voluntary tribute, Acholi princes referring a disputed succession to the Omukama, Lango men offering their service as soldiers in order to earn or acquire bride-wealth or fame, a prince from northern Busoga demanding arbitration, market masters from the lake Kioga littoral bringing the dues paid by Iteso, Kumam, Langi and Basoga.(p. 21)

At risk of oversimplifying the complex dynamics and drivers of inter and intra ethnic conflict, skirmishes and disputes were largely related to access to resources and power. Among the pastoralists in areas like Karamoja, for example, cattle rustling was commonplace (Gukiina, 1972). Conflict over power had more to do with resistance against kingdoms that asserted their power to exact tribute from or incorporate communities outside their sphere of influence, or factions within a kingdom vying for domination or seeking secession.

The advent of the British in the early 1890s created new discord between ethnic groups in what would become Uganda (Hooper and Pirouet, 1989). Following the Berlin Conference in 1884, the British entered treaties (negotiated or imposed) with the various political organizations in the territory. These treaties privileged the Buganda Kingdom over the others in two major ways (Hooper and Pirouet, 1989). First, the Buganda Kingdom was given special status, allowing it to have its own parliament and control over its subjects. Second, the British supported the Buganda Kingdom's annexation of counties that were under the jurisdiction of other kingdoms, mainly the Bunyoro kingdom, creating new and arbitrary internal borders between kingdoms and communities. The counties that the Buganda annexed from the Bunyoro Kingdom were labelled the "Lost Counties" and remained a source of contention in Uganda politics after independence. In return for this favoritism the Buganda helped the British to expand their influence and to control Uganda as a British protectorate (Gukiina, 1972). The Buganda were instrumental in the implementation of British indirect rule over the new territory of Uganda (the Swahili name for Buganda). The privileged treatment and support given to the Buganda Kingdom created animosity and conflict between the Buganda and other kingdoms, creating tensions and conflicts that persisted after independence.

Additionally, the British adopted a policy of divide and rule, deliberately pitting one community against another, one religious group against another, sowing sufficient discord to

insure against a united uprising (Senteza-Kajubi, 1987). They also, paradoxically, forced the disparate kingdoms and population groups together under a single unitary administration (Senteza-Kajubi, 1987). As in Rwanda, the introduction of Christianity into Uganda in the 19th century by Anglican and Catholic European missionaries contributed to the tension, adding Christianity to the existing mix of Islam and traditional religions (Moncrieffe, 2004).

Indirect rule was built on the Buganda political system and implemented through the Buganda kings, chiefs, and administrators allowing the British to consolidate their control over the Uganda protectorate (Uzoigwe, 1982). Within two decades (i.e. by the mid-1910s), the British government was paying its administration expenses through tax collected by the Buganda Kingdom (Kasozi, 1994; Hooper and Pirouet, 1989). Indirect rule also worked well for the Buganda Kingdom during this period. Collaboration with the British enabled it to become an unassailable political, economic and military force in the protectorate (Uzoigwe, 1982).

The protectorate was supported by a mixed economy. On the one hand, the economic policy of the colonial government “resulted in the underdevelopment of local industry and stifling of the private sector” (Senteza-Kajubi, 1987, p.5). It enfranchised southerners and Indians because the production of primary commodities such as coffee and cotton were concentrated in their hands, and disenfranchised northerners, who became a source of cheap labour and recruits for the army and police (Senteza-Kajubi, 1987). Later, this inequity contributed to tensions between northerners and southerners as well as between Ugandans of African and Asian descent. On the other hand, at the end of British rule, Uganda inherited one of the most promising economies in Africa. The production of tea, coffee, and cotton increased through the 1930s and 40s and a considerable number of consumer goods were locally manufactured. Additionally, as the World Bank (1987) noted:

The transportation system, which included an effective network of roads, railways, and port and air transport, was widely regarded as one of the best in Sub-Saharan

Africa. Railroads and paved roads connected Uganda with the seaport of Mombasa. Airports linked the more important Ugandan towns with other East African territories (Kenya and Tanganyika). Entebbe boasted a modern international airport, and steamer services ran on the lakes and the River Nile. In addition, Uganda had a large subsistence sector. (p.2)

The state managed the economy through an efficient and effective public sector in which competent and well paid civil servants got free health insurance, generous leave, and retirement benefits from the state.

During the late 1940s and early 1950s, collaboration between the British government and the Buganda oligarchy weakened for many reasons. The Buganda Kingdom's authority was eroding and it began to call for a separate and independent Buganda state, distancing itself from the rest of Uganda. There was also growing discontent with British rule among the masses more generally (Uzoigwe, 1982). The tension culminated in the expulsion of the King of Buganda from the protectorate in 1953, the imposition of a state of emergency in Buganda, and reforms that further undermined the role of the oligarchy in the administration (Uzoigwe, 1982). These actions did not improve the situation. An attempt to crown the king's brother also failed. Ultimately, the imperial power could not rule effectively, nor could it find an effective local collaborator to administer the protectorate (Uzoigwe, 1982). The early 1950s saw a political awakening in Uganda and the formation of political parties such as the Uganda National Congress (UNC), the Uganda Congress Party (UCP), and the Uganda People's Congress calling for self-governance (Ibingira, 1973).

In 1954, a committee formed by the British government to address the crisis in the protectorate issued recommendations that reinstated the King, restored his authority, and gave the kingdom administrative autonomy (Gukiina, 1972). Despite these concessions, the demand for an independent Buganda continued, undermining the collaboration between Buganda and the protectorate government (Gukiina, 1972). Moreover, riots against British rule, and boycotts of trade with Asians, created further tensions (Ibingira, 1973). In 1959, the

British government formed a constitutional committee that consisted of Europeans, Asians, and Africans in order to prepare Uganda for independence. Based on the recommendations of the committee, Uganda was granted self-rule in 1961, paving the way for legislative council elections which were won by the Uganda People's Congress (UPC) and Kabaka Yekka (the Buganda Kingdom's party) alliance. Uganda became independent on October 9, 1962, under the leadership of the UPC and Prime Minister A. M. Obote (Ibingira, 1973). In 1963, the Queen of England was replaced as head of state in Uganda by the Buganda King, Kabaka Edward Muteesa, strengthening the UPC and Kabaka Yekka (KY) alliance and quelling calls for an independent Buganda (Ibingira, 1973).

From independence to intrastate wars

Uganda's post-independence period was marked by political turmoil, military coups, and civil strife, undermining state performance. The crisis began immediately after independence, when tension started to build up over the role of the King and his kingdom in the central government. The alliance between the UPC and KY became a point of contention when other political parties and communities accused the Prime Minister of favoring the Buganda Kingdom which was seen as a secessionist kingdom and a facilitator of colonial rule (Gukiina, 1972). The issue of the "Lost Counties" (the counties that the Buganda kingdom had annexed from the Bunyaro kingdom with the help of the British) was raised, and the Buganda King, who was also the President of the new state, rejected proposals to table the issue for discussion (Gukiina, 1972). Obote was in a difficult position: on the one hand he wanted to appease the Buganda Kingdom and defer talk of secession; on the other hand, he had to heed the calls of non-Bugandan Ugandans for political representation and participation in the political and economic life of the new state. Cracks in the alliance began to emerge when the Prime Minister decided to engage with the issue of the 'Lost Counties' (Ibingira, 1973). In 1964, Obote's government organized a referendum for the people to decide whether

the “Lost Counties” would remain in the Buganda Kingdom, rejoin the Bunyaro Kingdom, or establish their own district (Gukiina, 1972). The people of the “Lost Counties” of Buyaga and Bugangazzi voted to reunite with the Bunyaro Kingdom, triggering political conflict between the Prime Minister and the President, King Muteesa, after the PM signed the referendum results into law (Ibingira, 1973).

The conflict scaled up very quickly. Allegations of corruption involving the appropriation of ivory and gold from Congo were tabled against Obote in the parliament by Kabaka Yekka MPs and some ministers from the PM’s own party. Parliament voted to set up a commission of inquiry (Hooper and Pirouet, 1989). In February 1966, Obote ordered the arrest of five ministers who had voted in favour of the commission and suspended the Constitution, putting himself in place of King Muteesa as President and transforming Uganda into a one-party state (Ibingira, 1973). In May of the same year, the Buganda Kingdom gave the government a ten-day ultimatum to leave Buganda territory, including Kampala the seat of government and the commercial hub of Uganda (Gukiina, 1972). Hundreds of civilians were killed in the violence that erupted after government soldiers attacked the King’s Palace (Ibingira, 1973). King Muteesa went into exile in London where he died in 1969. The Buganda Kingdom was abolished, and the following year the Bunyaro, Ankole, and Toro kingdoms were also outlawed (Ibingira, 1973).

In December 1969 Obote issued his manifesto, the ‘Common Man’s Charter’, in which he declared a ‘move to the left’, aligning himself with other socialist countries in the region such as Tanzania, and positioning himself to receive support from the Soviet Union in order to consolidate his power (Hooper and Pirouet, 1989). Other measures proposed in the manifesto and subsequent policy documents included economic nationalization. Sixty percent of the ownership of banks, oil companies, insurance firms, large industrial firms, and other companies such as Kampala Bus Services and the Kilembe mines was put in the hands of the

government (Byrnes, 1990; Schultheis, 1975). Although some have noted that Obote's financial backers of Indian origin controlled or benefitted from his policies (see Byrnes, 1990), nationalization negatively affected many Ugandans of Indian origin and triggered an exodus of business people from Uganda in the late 1970s, particularly those of Asian origin (Schultheis, 1975). Economic nationalization also undermined the business interests of wealthy southerners, including the Buganda business elite and Western powers, particularly the British whose companies and banks controlled financial services. Prior to nationalization three British banks (Barclays, Standard, and National and Grindlays) controlled or owned 71 of the 89 bank branches in the country (Schultheis, 1975). Political opposition within the country, and Western powers who opposed the shift to socialism, joined forces to undermine Obote's reforms through the military which had been used as a tool by Obote until then (Hooper and Pirouet, 1989; Ibingira, 1973).

In 1969, the army commander, Idi Amin, who had been close to Obote and was awarded with the military position Chief of Staff for leading the crackdown on Buganda in the late 1960s, stepped up the recruitment of soldiers from Acholi, his own ethnic group, and promoted commanders that were loyal to him, paving the way for a military coup (Hooper and Pirouet, 1989). On January 22, 1971 Amin seized power while the President was on an official trip to Singapore (Hooper and Pirouet, 1989). The Buganda political and business elite, who had been sidelined by Obote, welcomed the coup, and the United States, United Kingdom, and Israel immediately recognized Amin's government (Byrnes, 1990).

Amin promised to restore a democratically elected government to Uganda, and put a stop to corruption and the detention of dissidents. He also promised to rescind Obote's economic nationalization which had so negatively affected Ugandans of Asian origin (Gukiina, 1972; Schultheis, 1975). Although Amin did release some political prisoners, arrange for the return of King Muteesa's body for a royal burial, and largely reverse the

economic nationalization policy, Amin's era was marked by brutality, the violation of human rights, and economic decay (Hooper and Pirouet, 1989). Within months of taking power, Amin began to purge the military of members from Obote's ethnic group, and then cliques within the military started eliminating each other, eventually depriving the army of the capacity to respond to rebels or to repel Tanzanian and liberation forces as they would be asked to do in 1979 (Leggett, 2001). Purging the military was followed by the suspension of parliament and all political and democratic rights, and the torture and killing of opponents (Hooper and Pirouet, 1989). It is estimated that 500,000 people lost their lives during Amin's years in power, 1971-1979 (Hooper and Pirouet, 1989).

State institutions and local administrations became ineffective under military rule (Byrnes, 1990, p. nd). The public sector, already weakened by instability, decomposed further. The hiring and firing of civil servants became arbitrary. Political violence and ineffective institutions were coupled with an "Africanization" program that undermined the economy further (Hooper and Pirouet, 1989). In August and September of 1972, Amin ordered the expulsion of Ugandans of Asian origin (between 50,000 and 90,000 people) and appropriated their wealth. He then formed an alliance with Libya and Saudi Arabia and expelled his Israeli advisors and Britons (Byrnes, 1990). Although Amin had pronounced that the wealth taken from the ejected Asian Ugandans would be redistributed to the 'common man', it was primarily divided among loyal military and police officers and supporters, giving Amin the "means to control a lucrative network of patronage" (Leggett, 2001). The confiscation of property led to economic deterioration: "cement factories at Tororo and Fort Portal collapsed from lack of maintenance, and sugar production literally ground to a halt, as unmaintained machinery jammed permanently, ...and Uganda's export crops were sold by government parastatals, but most of the foreign currency they earned went for purchasing imports for the army" (Byrnes, 1990, p. na).

With the economy crumbling and the army in disarray, Amin's invasion of Tanzania, where Obote and Museveni were living in exile, was political suicide (Hooper and Pirouet, 1989). When, in 1979, Tanzania launched a counterattack with the support of the Uganda National Liberation Army (comprised of Obote's 'Kikos Malulu' and Museveni's "Front for the National Salvation of Uganda"), Amin was removed from power (Kasfir, 2005). The coalition of military and political groups which was united under the umbrella of the Uganda National Liberation Front, elected Dr Yusuf Lule, a former principal of Makerere University College, as President in April, 1979 with the understanding that elections would be organized within two years (Kasfir, 2005; Leggett, 2001). Within two months, Lule was voted out by the coalition. His replacement, Godfrey Binaisa, lasted for a single year (Hooper and Pirouet, 1989). The election in 1980 took place in such a tense political environment that the result was in question even before Obote was declared the winner (Hooper and Pirouet, 1989). Following the announcement of the election's outcome (largely believed to have been rigged), Museveni's National Resistance Movement (NRM) was born, and the cycle of political violence continued (Hooper and Pirouet, 1989; Leggett, 2001).

Obote's second regime was characterized by the violation of human rights and the victimization of Amin's ethnic group, as well as other ethnic groups suspected of supporting Amin. The regime focused on the hasty recruitment of soldiers from the Lango (Obote's tribe) in order to take revenge on the people of West Nile (Amin's people), the Banyarwanda⁹ (the Hutu and Tutsi of Uganda) in Ankole district who had not supported Obote's first regime, and the Baganda, who remained hostile to Obote for abolishing their kingdom (Hooper and Pirouet, 1989). It is estimated that over 500,000 people lost their lives during Obote's second regime of 1981-1985 (Byrnes, 1990).

⁹ Some Banyarwanda were refugees that fled the prosecution of the Rwandese government in the 1950s to 1970s, but significant portion of them (approximately 900,000) were Ugandans (see Hooper and Pirouet, 1989). Rwanda's ruling part, Rwanda Patriotic Front, was born out of the subjugation of the Banyarwanda, both refugees and non-refugees, by the Obote regime as discussed in the following sections.

The political violence and human rights violations were coupled with widespread corruption in the public sector where “medical workers appropriate drugs for private sale; civil servants expect *chai* (tips) for services rendered; and telephone engineers demand regular payoffs to keep private phones connected” (Hooper and Pirouet, 1989, p.18). Senior political and military leaders were also accused of embezzling funds and depositing them in Europe (Hooper and Pirouet, 1989). President Obote provided a political cover for these corrupt officials in order to maintain his patronage network, a network that allowed him to privilege the north over the south (McDonough, 2008). During this period the public service deteriorated; “civil servants had become malingerers, absentee officers... majority of whom were recruited as gangsters, warlords and plunderers of public service infrastructure” (Uganda Ministry of Public Service, 2011, p. 5).

Obote initially attempted to reform the economy, relying on the guidance and support of the International Monetary Fund. However, he later shifted his focus to fighting the NRM, disappointing Western donors (Byrnes, 1990). It is in this context that Obote invited the support of North Korean military advisors, ultimately tainting the regime’s image in the eyes of the West (Byrnes, 1990). While Obote lost the support of the West as well as that of his own people, the NRM, led by Museveni, who had guerilla warfare experience from his days with the Frente de Libertação de Moçambique (FRELIMO), gained momentum. The NRM managed to mobilize public support for its war, particularly from the Baganda and areas in the South which were politically marginalized under Obote’s regime (Kasfir, 2005). What became known as the Bush war was a hit and run affair, striking from its base in Central Uganda, the “Luwero Traingle”¹⁰. One of the first attacks was carried out in February, 1981, by a handful of NRM rebels including Paul Kagame, who would later become the president

¹⁰ The districts of Luwero, Mubende, Mpigi, and Mukono, which have jungles suitable for guerilla war base and are primarily inhabited by Baganda, became the center of the NRM movement and become known as the Luwero triangle.

of Rwanda (Amaza, 1998). By March of the same year, thousands had joined the NRM constituting a real threat to Obote's regime (Museveni, 2000).

Meanwhile, tension within Obote's army between the Acholi and the Lango, came to a head in Kampala in 1985. Obote¹¹ was overthrown by General Tito Okello (Hooper and Pirouet, 1989). Within a few months of Obote's defeat the NRM took over Kampala. Museveni was sworn in as the 8th president of Uganda in January 1986 (Hooper and Pirouet, 1989).

The NRM took over a country beset by political instability and civil strife. The turmoil during Amin's regime, and Obote's second regime, led to economic decay and the destruction of the social sector. Economic growth, which during Obote's first regime was comparable with that of other Sub-Saharan African countries, fell at an annual rate of -6.2% during Amin's reign (1973-1980) and then -2.4 during Obote's second regime (1980-86) (Lateef, 1991). Inflation increased from 5.6% to 45% during the 1973-1980 period and then soared to 95% per year between 1980 and 1987 (Lateef, 1991).

The legacy of political instability and conflict on health in Uganda

The legacy of the war and civil strife on population health in Uganda cannot be fully understood without tracing the evolution of public health in Uganda from the colonial era. This historical approach sheds an interesting light on changes in health care delivery in Uganda. Although colonialism is often associated with poor development outcomes, the health care system that Uganda inherited from the British colonial rule was functioning so well that it was considered one of the best in Africa (Whyte, 1991). Health care delivery was organized in an integrated fashion that linked referral services from small dispensaries, health posts and units in villages and towns to health centers and hospitals in bigger cities (Dodge and Wiebe, 1985). Dodge and Wiebe (1985) note that the population had good access to care

¹¹ Obote fled to Zambia where he was in exile for over 20 years but died in South Africa in 2005. He was given state funeral in Kampala by his rival, President Museveni, which was not expected in Uganda's rough politics.

and did not need to travel long distances. They also observe that health facilities were equipped with a well-trained health workforce. Services were offered and drugs provided to patients free of charge (Whyte, 1991). One explanation Scheyer and Dunlop (1985) posit for the well-functioning health system is the considerable budgetary commitment to health services. Between 1935 and 1970, the colonial government invested a minimum of 6.3 % of the budget in health. More importantly, local governments invested 20% of their budget in health between 1947 and 1970 (Scheyer and Dunlop, 1985).

The one weakness of the health system Uganda inherited at independence was that it “favoured urban-based curative care”, a weakness that persisted over the coming decades (Macrae, Zwi & Gilson, 1996). Overall, however, the health system continued to function well into the 1960s and early 1970s post-independence period. In 1966, Obote’s regime developed the country’s second five-year development plan (1966-1971), which prioritized agriculture and industrialization but also emphasized the importance of expanding health and education services, particularly in rural areas (Scheyer and Dunlop, 1985). The services were provided by government owned health facilities as well as faith-based organizations and private firms. The Catholic and Protestant Churches’ Medical Bureaus, for example, played a critical role in service delivery (Scheyer and Dunlop, 1985).

With services provided by over four hundred facilities across the country, the health status of the population further improved in the 1960s and early 1970s. As observed by Scheyer and Dunlop (1985), “a number of once major health scourges such as smallpox, sleeping sickness, meningitis, and certain venereal diseases had been reduced to only occasional incidence, while others such as tuberculosis, poliomyelitis, river blindness and leprosy were under control” (p.29). The infant mortality rate decreased from 120 per 1000 live births to less than 100 per 1000 live births between 1959 and 1969 (Scheyer and Dunlop, 1985). During this period, “Uganda pioneered immunization programs through the Pre-

primary Protection Program which was established under Makerere University in Ankole district” (Dodge, 1987, p. 105).

The political instability and conflict between 1971 and 1986, however, led to the breakdown of Uganda’s health care system (Hutchinson, Habte & Mulusa, 1999). Health facilities were destroyed and medicine and equipment looted in many parts of the country. Other facilities suffered from sheer neglect, particularly facilities in conflict ridden areas (Macrae, Zwi & Gilson, 1996). About half of the country’s doctors and 80% of pharmacists fled the country (Hutchinson, Habte, & Mulusa, 1999). The expulsion of the Ugandans of Asian origin particularly depleted the country of not only health professionals but also the workforce involved in the distribution of medical supplies (Dodge, 1987). For the remaining work force, “disconnection from social and professional support systems, displacement, limited supplies and equipment, increased workload and long working days and lack of pay”, undermined their capacity to deliver services (Namakula & Witter, 2014 p. 116). The deterioration of the economy also negatively affected the health budget. It is estimated that in 1986/87 the health budget was a mere 6.4% of its 1970 levels, about 0.1% of GDP (Macrae, Zwi & Gilson, 1996).

Macrae, Zwi & Gilson (1996) report that the infant mortality rate in Uganda rose from 91.9 per 1000 live births in the mid-1970s, to 101.2 per 1000 at the end of the Obote’s regime, but acknowledged that these figures could be ‘underestimates’, given that the quality of data recorded during the turbulent 1970-86 period is questionable. The high IMR is not surprising given that immunization coverage for DPT, Measles and Polio decreased from over 70% in 1973 to less than 10% in 1983 (Dodge, 1987). The linkage between conflict and a high infant mortality rate has been well documented. Dodge (1990) observes that “[c]ountries torn by civil war rank among the highest for IMR (infant mortality rate): Afghanistan is number one; Mozambique, number two; Angola, number four; Ethiopia,

seventh; and Somalia, thirteenth, to give a few examples” (p.691). Of course war directly caused the loss of 1 million lives during Amin’s military regime and Obote’s second regime as discussed previously.

In summary, the political turmoil and armed conflict in Uganda between 1971 and 1986 was a major setback for the country’s health care system and the health status of the population. As Macrae, Zwi & Gilson (1996) observe, “However cynical one is about 'league tables' it is notable that an informant from the World Health Organization reported that in the 1960s Uganda was at the top of the table of African countries in terms of health status; whereas by 1986 it was fortieth” (p.1096). The National Resistance Movement took over this broken health system. The following sections will discuss the state building efforts of the NRM and the development of a health system in Uganda.

The NRM government: 1986 as a critical juncture?

The NRM government took over a country divided along ethnic (north and south with sub-divisions) and religious lines (Protestant, Catholic and Muslims), divisions held over from the politicization of ethnicity and religion inherited from the British colonial administration. It also inherited an economy in shambles and a social sector destroyed by war and conflict. Knowing that the Ugandan public yearned for normalcy and a government that would protect and serve all Ugandans, the new President, in his swearing in ceremony on January 29, 1986, declared that the takeover of power by NRM would be a critical juncture in Uganda’s troubled post-independence history (Museveni, 2000). In the words of Museveni, the new president:

No one should think that what is happening today is a mere change of guard: It is a fundamental change in the politics of our country. In Africa, we have seen so many changes that change, as such, is nothing short of mere turmoil. We have had one group getting rid of another one, only to turn out to be worse than the group it displaced. Please do not count us in that group of people: the NRM is a clearheaded movement with clear objectives and a good membership. (Museveni, 2000, p.3)

The president's speech was well received partly because, unlike previous changes of government, this seizure of power was not followed by a violent crackdown on political opposition and unarmed civilians and partly because the ten-point program that the NRM developed during the Bush War largely represented the aspirations of Ugandans (Hooper and Pirouet, 1989; Kobusingye, 2010). These points included the restoration of democracy, security for people and properties, the promotion of unity and the elimination of sectarianism, improvement of the economy and social services, and the elimination of corruption (Museveni, 2000).

The government gave itself an interim period of four years (1986-1990) to prepare for the transfer of power to a democratically elected government (Amaza, 1998). During the interim period, the National Resistance Council (NRC), comprised of 30 individuals, selected by the NRM movement on the basis of allegiance and contribution to the struggle, under the leadership of Museveni, was in charge of the government (Amaza, 1998). The NRM blamed the sectarianism of the country's body politic on political parties that rallied their supporters along ethnic and religious lines. On those grounds they banned party-based democracy. Since the NRM banned political activities outside the NRC, the first major undertaking of the government was the expansion of the NRC to improve political participation. By 1989 an additional 220 individuals had been "(s)elected" to join the council, which together with the members of the cabinet also served as the country's legislative body (Amaza, 1998). The NRC extended its term and that of the president, without much opposition, for five more years (1990-1995), claiming it needed more time to draft a new constitution.

In 1993, four of Uganda's old kingdoms (Buganda, Bunyoro, Toro, and Busoga) were reinstated, leaving only Ankole, where Museveni is from, without status. The president might have been reluctant to create a structure that would compete with him for the people's allegiance in his constituency. The government reinstated the kingdoms as cultural

institutions and warned them not to become engaged in political activities. This remains a source of tension between the government and the kingdoms, particularly the Buganda Kingdom, which continues to demand autonomy under a federal system of governance.

In 1994/95 nationwide consultations for a new constitution were completed. An elected constituency assembly endorsed the constitution that came into effect in October, 1995 (Amaza, 1998). The new constitution banned political parties and retained the movement-based system that the NRM lobbied for, allowing individual politicians to run for office only as independents (Amaza, 1998). NRM's domination of parliament continued for subsequent elections and Museveni remained unchallenged, winning both the 1996 and 2002 presidential elections (Economist, 2009). In the early 2000s, however, the pressure to introduce multi-party democracy increased, coming from both the donor community and the opposition led by Museveni's former ally and personal doctor, Kizza Besigye. Responding to donor threats to withhold aid and perhaps confident that the opposition was too weak to challenge him, Museveni announced the introduction of a multi-party system in 2003 (Economist, 2009).

The NRM government abolished the two term limit in the 2005 presidential elections, paving the way for Museveni to run for office and win presidential elections in 2006, 2011, and 2016 (Economist, 2009). Museveni's electoral success is partly attributed to his record during his first decade in office while he was "viewed as a popular and effective African leader with a record of higher living standards and improved security conditions in Uganda -- a sharp contrast to the years of rule under the likes of Idi Amin and Milton Obote" (Youngblood-Coleman, 2016, p. na). Since the late 1990s, however, the president's democratic credentials have been tarnished. NRM hegemony has become entrenched, the once broad-based government is now dominated by southerners, and corruption and

clientelism¹² have become the order of the day (Mwenda & Tangri 2005).

Despite these observations, NRM, under the leadership of Museveni, remains the dominant political force in Uganda. The NRM has controlled the parliament since it came to power in 1986, allowing the government to pass sensitive legislation (such as abolishing the term limit in 2005). In 2017, the parliament passed legislation that abolished the presidential age limit, allowing Museveni to run for office yet again in 2021 at the age of 77. When the opposition, which makes up less than 15% of the current parliament, tried to stop the parliamentary proceedings over the age limit bill, a fist fight broke out between parliamentarians. It is estimated that three-quarters of Ugandans opposed the abolition of the presidential age limit (Afrobarometer, 2017).

Uganda's political settlement lacked legitimacy in the eyes of the non-Bantu northerners. As a result, rebel groups sprang up in the north after the NRM took over in 1986. One of the rebel groups that have dominated world headlines and social media is the Lord's Resistance Army (LRA). The LRA has committed war crimes and crimes against humanity for which its leader, Joseph Kony, has been indicted by the International Criminal Court (Youngblood-Coleman, 2016). It is estimated that before the LRA was driven out of northern Uganda into the Central African Republic in the late 2000s and early 2010s, tens of thousands of people, many of whom were children and women, were killed, and two million more were displaced by the conflict between Uganda government forces and the LRA, which ran from the early 1990s to the early 2010s (Youngblood-Coleman, 2016).

That conflict also exacerbated the economic disparity between the north and the south and had a negative impact on the health status of the population (Van Acker, 2004; Accorsi et al., 2004). Between 1992 and 2002, for example, the hospital admission rate in northern

¹² James Scott (1972) defines clientelism as "instrumental friendship in which an individual of higher socioeconomic status (patron) uses his own influence and resources to provide *protection or benefits*, or both, for a person of lower status (client) who, for his part, reciprocates by offering *general support and assistance*, including personal services, to the patron" (p.92).

Uganda doubled each year, with malaria the leading cause (Accorsi et al., 2004). Since infectious diseases such as malaria are more amenable to primary prevention efforts, the increased burden of malaria and other infectious diseases during the conflict period “reflects the collapse of the primary health care system in northern Uganda and the subsequent failure in disease prevention and control” (Accorsi et al., 2004, p.231). A recent study by Che Chi and associates (2015) also shows that the destruction of health facilities, the killing and abduction of health workers, and the looting of medical equipment and supplies during the conflict period have led to poor access to health care and poor health outcomes.

Although there is no ongoing armed conflict in Uganda, political violence and the use of security forces against civilians has not stopped during NRM’s reign, particularly in northern Uganda where the LRA operated (Advisory Consortium on Conflict Sensitivity, 2013). In September 2009, following the government’s refusal to allow the King of Buganda to travel to a constituency outside Kampala, clashes between government forces and supporters of the Buganda kingdom led to the deaths of 15 people, left 80 more with injuries; and over 600 arrested (BBC, 2009). One of the long standing points of contention between the government and the Kingdom is the latter’s role in the country’s political life. Buganda Kingdom’s quest for a federal system of governance remains unabated. As recently as April, 2016 the King again demanded autonomy for Buganda under a federal system.

Weaknesses in the democratic credentials of the NRM government are evident and its record on corruption has tarnished its image still further (Youngblood-Coleman, 2016). Transparency International's Corruption Perception Index placed Uganda 87th among the 100 most corrupt countries in the world (Youngblood-Coleman, 2016). Muhumuza (2016) has argued that political factors such as lack of political will at the highest level of leadership continue to undermine efforts to tackle corruption in Uganda. Many ministers, including the ministers of agriculture and health, have been implicated in corruption scandals involving

millions of dollars (Youngblood-Coleman, 2016). Mwenda and Tangri (2005) assert that public resources and internationally mobilized resource are often misused by the government to maintain its “patronage basis”. Muhumuza (2016) also contends that the NRM government is not serious about tackling corruption since it “serves as a powerful resource to build a political power base and retain power” (p. 63).

Nevertheless, under the NRM Uganda achieved more than 7% economic growth in the 1990s and 2000s, well above the sub-Saharan Africa average, and has been able to surpass the MDG’s poverty reduction target (Economist, 2009). Real GDP per capita in Purchasing Power Parity terms increased from \$497 in 1990 to \$1721 in 2014 (World Bank, 2017). Uganda’s economy is based primarily on agriculture. The country is endowed with fertile soils and regular rainfall, and coffee is Uganda’s main export earner. However, growth in the service sector, particularly in telecommunications, financial services, trade (mainly in agricultural products) and hospitality (hotels and restaurants), has been significant, accounting for 45% of GDP in 2009 (Economist, 2009). Uganda’s economy continued to grow between 2010 and 2016, albeit at the slower average rate of 4.5%. The relative slowdown has been attributed variously to “adverse weather, unrest in South Sudan, private sector credit constraints, and the poor execution of public sector projects” (World Bank, 2017, p. 1).

Economic development has not been uniform across the country. Legget (2001) notes that uneven economic development in Uganda began in the colonial era. He asserts that the colonial rulers built the economy around the fertile Lake Victoria region and constructed railways to link this region to Mombasa, integrating the southern region’s economy to the imperial economy while neglecting the dry districts of the north. This neglect of the northern region continued after independence. Uganda modernized the economy of regions in the south, east and west, but not the north (Economist, 2009, Legget, 2001). The Economist

(2009) asserts that the south benefited from a relatively strong infrastructure and more productive agriculture, but also from relative peace and stability which have been rare commodities in the north. Recent studies point out that the disparities in economic development between the south and the north persist even after the implementation (in 2007-2010 and again in 2011-2015) of the Peace, Recovery and Development Plan for Northern Uganda (PRDP) (Advisory Consortium on Conflict Sensitivity, 2013; International Alert, 2015).

Uganda has been highly dependent on aid since the beginning of the NRM mandate in the late 1980s. In the mid-2000s, half of Uganda's budget was still raised externally. By 2009, only \$1.79 billion, about 29% of Uganda's budget, was externally mobilized (World Bank, 2012). The government's budget in 2013 was estimated to be US\$3.66 billion, of which 71.5% was financed through domestic revenue, showing the growing extractive capacity of the state (Almunia et al., 2015). In 2014/15, the Uganda Revenue authority collected UGX 9,715.60 billion (approximately US\$2.7 billion) against a target budget of UGX 9,576.59 billion, representing a 1.45% surplus (Uganda Revenue Authority, 2016). This shows that the government now has considerable tax collection capacity. The country's economy has recovered sufficiently to finance its own development programs (Kuteesa et al., 2006).

Improving state effectiveness: Decentralization and public sector reform

Along with political reforms, Museveni's government undertook multiple administrative reforms, reversing the centralization of power achieved by earlier governments and devolving considerable powers to local authorities (Okidi & Guloba, 2006). Both the 1993 Local Government Statute and the 1997 Local Government Act serve as the main legislative sources of Uganda's decentralization process. Under the new legislation, there are local councils (LC) from village level (LC1) to district level (LC5), with specific quotas for

the participation of women, youth, and physically challenged individuals. Whereas at the age of 18 everyone automatically becomes a member of the village council, members of the district council are elected. Each LC5 is led by a district chairperson who is mandated to form a local government. The secretary for health is a member of the district cabinet and is mandated to oversee the implementation of health policies.

The primary goal of decentralization was to shift responsibility for service delivery (primary and secondary education services, medical and health services, water supply, as well as local roads and infrastructure) to local authorities and to improve democratic participation, resulting in an administrative system in which the central government retained responsibility only for key national sectors such as security, immigration, and foreign affairs. Thus, local governments emerged as the primary vehicle for service delivery and the central government ministries play a regulatory and advisory role, setting policies, priorities and guidelines for the implementation of national development programs by local governments. This led to improvements in the social sector in the late 1990s and early 2000s. For example, Asimwe and Musisi (2007) note that subsidies from the central government allowed districts to invest in health infrastructure and improve services such as immunization, and the delivery of babies at health facilities.

It is, however, important to note that despite formal recognition of the local governments' role in public administration, in practice the role of local government is limited by a number of factors. Firstly, there is an absence of fiscal space. Local governments receive the bulk of their funding (80 %) as conditional grants from the central authority which monopolizes the budgeting process (Okidi & Guloba, 2006). For example, the central government decided to reduce the portion of the overall budget that goes to districts from 50% in 2002 to 20% by 2009 (Lambright, 2011). The abolition of the graduated personal tax (a tax levied on all males aged 18 and females engaged in business activities) which was the

main source of revenue for the districts, has also weakened the fiscal capacity of the districts (Lambright, 2011).

Secondly, although the elected district chairperson is constitutionally mandated to represent the government at the local level, the president also appoints local officials such as Resident District Commissioners (RDC) to link central and local governments, often creating conflict over who does what and compromising the independence of the local governments (Boex et al, 2010). While the RDC's role is supposed to complement the role of the district chairpersons, RDCs are often seen as the president's eyes and ears on the ground and represent a patronage structure that serves the interests of the president and his NRM (Lambright, 2011). The patronage-based political system is also reflected in the ever growing number of districts in Uganda, which have increased from 57 in 2004 to 121 in 2017. As Manyak and Katono (2010) note:

The problem with new district creation is that political considerations often dominate decision making, primarily because new districts can be a key tool for consolidating political support prior to an election. New districts allow the party in power, in this case the NRM, to reward its local followers with jobs and contracts as well as making them politically more noticeable in parliament. One study found a strong statistical association between election support for the NRM and the creation of new districts. (p.6)

This patronage-based political system has undermined the effectiveness of a state which was considered a leader in local government reforms in Africa in the late 1990s and early 2000s (Green, 2015).

The NRM government undertook public sector reforms to build an effective bureaucracy. In 1992, following the recommendations of the Public Service Review and Reorganization Commission (PSRRC), the president, in the face of resistance from some political leaders, reduced the number of ministries from 38 to 21 (Robinson, 2007). This was followed by a large retrenchment that saw the removal of one third of permanent secretaries, 150,000 civil servants, 40, 000 military personnel, and pay reforms aimed at increasing

salaries and improving benefits (Kjaer, 2004; Robinson, 2007). Robinson (2007) argues that “the personal commitment of President Yoweri Museveni to improving governance facilitated the introduction of reform initiatives” as he provided not only direction but also the space and the necessary support to agencies responsible for the reform (p. 453).

The reform aimed at more than the reduction of numbers; professionalization and increased effectiveness were the major objectives. The reforms helped the government to eliminate ‘ghost workers’ on the state payroll; improve recruitment and record management; and identify capacity gaps that needed to be addressed through training (Kjaer, 2004). Institutions such as the Public Service Commission (PSC)¹³ whose functions included appointing, promoting and disciplining civil servants, were constituted in 1995. The government has, over the years, also introduced out-put oriented budgeting process, and detailed national and district level development plans against which the performance of civil servants is measured (Hauge, 2001). To strengthen routine monitoring of the implementation of public policy and ensure civil servants are delivering on their mandate, the government introduced various policies and strategies such as the National Integrated Monitoring and Evaluation Strategy (NIMES) and national service delivery surveys, which are undertaken every four years (GoU, 2011).

In the late 1990s and early 2000s, Uganda’s poverty rate declined from 56% in 1992 to 31% in 2005. Primary school enrollment increased from 3 million in 1997 to 7.4 million in 2004. The maternal mortality ratio decreased from 506 per 100,000 in 1990, to 435 per 100,000 in 2005, while the infant mortality rate decreased from 89 per 1,000 in 1990 to 76 per 1,000 in 2005 (Uganda Ministry of Public Service, 2011).

¹³ Although the recruitment process is well defined in the public service act, delays and mismatch of personnel and work are common. At the district level, the civil service commission functions poorly and officials often do not follow recruitment procedure, hiring family members and friends- “the sons and daughters of the soil” (see Ministry of Public service policy paper, 2011).

In spite of the achievements listed above, Uganda's public service is still perceived to be slow and unresponsive to the needs of service users. There are incidences of poor client/customer care, and of outright mistreatment. Corruption has continued to be a key concern among Ugandans, including the political leadership. The 3rd National Integrity Survey (NIS III, 2008) conducted by the Inspectorate of Government, reported in its major findings that corruption has become an acceptable way of life and that citizens will only value a public sector service to the extent to which they have paid a bribe for the service. Delivery of public services in many areas has thus remained poor. For instance, the National Service Delivery Survey (UBOS, 2009) revealed that many programs do not reach the poor, especially those living in remote rural areas.

The problem is that the government responds to inefficiency by increasing the number of institutions or enacting more laws or making more policies, many of which are which are not implemented or are poorly implemented (Andrews, 2018). The number of ministers increased from 68 in 2003 to over 80 in 2017, including the president's wife, who is now the Minister of Education. The number of civil servants has doubled since 1990. Kjaer (2004) contends that the government's policy response reflects efforts to maintain patronage networks as most of the cabinet and top civil service positions are awarded to the president's supporters from western and central Uganda. This is certainly a departure from the initial years of the NRM government which were characterized by broad-based representation in the public sector.

Rebuilding the health systems of Uganda

One of the major problems the Ugandan state had to confront was rebuilding the broken health system. This section introduces the concept of health systems. It then provides an overview of how Uganda rebuilt its health care system, looking at both its achievements

and challenges. A similar overview of the re-building process in Rwanda is provided in the later sections of this chapter.

Understanding how a health care system functions provides important contextual insights into its institutional capabilities (specifically malaria control). In the context of this study an examination of the health system contributes to our analysis of the state's political commitment to rebuild structures that are capable of delivering its health policy objectives. An overview of how these structure function and how resources are mobilized, given the country's heavy reliance on donors for funding health care, will also touch on the issue of state autonomy.

The WHO (2007) defines health systems as “people and actions whose primary intent is to promote, restore or maintain health” (p.2) and a health care system is defined by Roemer (1991) as “the combination of resources, organization, financing, and management that culminate in the delivery of health services to the population” (cited in Birn, Pillay, & Holtz, 2009, p. 584). The Organization for Economic Coordination and Development (OECD) classifies health care systems into three models using the involvement of the public in the provision of health care as a benchmark. These include: The *Beveridge* model, in which the government funds and provides health care for all; the *Bismarck* model, in which health care is funded through employer and employee contributions and delivered through a mixture of public and private providers; and the *consumer sovereignty* model, in which health care is financed by individual and/or employer contributions and is delivered primarily by private providers (Burau and Blank, 2006). Many African countries experience high out of pocket expenditure and catastrophic expenditures even when health care services are financed by the state. This has led some to argue that many African countries do not fall under any of these classifications (Wallace, 2013). Birn and colleagues (2009) convincingly argue that typologies of health care systems can be misleading, given that many of the typologies

“overlap” and countries can have “multiple health care systems” that are funded through and delivered in a variety of forms to various population groups. They also underscore the importance of understanding the political economy of health systems in order to analyze their evolution, and examine the success and failure of various reforms to regulation, financing, resource allocation, and care provision that many countries have undertaken in recent decades. Resource constrained countries (e.g. Costa Rica and Sri-Lanka) and regions (e.g. India’s Kerala State) have attained life expectancy rates similar to those of developed countries, demonstrating that improved health can be a result of political systems and choices made by the political elite and is not necessarily associated with wealth.

Regardless of how a health system is organized, improving health by ensuring adequate access and providing quality health services in an equitable and efficient manner remains the primary goal of all health systems (WHO, 2007). The WHO (2007) identified six building blocks (shown below) necessary for health systems to achieve this primary goal.

Table 1: WHO’s six building blocks

THE SIX BUILDING BLOCKS OF A HEALTH SYSTEM

• Good health services are those which deliver effective, safe, quality personal and non-personal health interventions to those that need them, when and where needed, with minimum waste of resources. • A well-performing health workforce is one that works in ways that are responsive, fair and efficient to achieve the best health outcomes possible, given available resources and circumstances (i.e. there are sufficient staff, fairly distributed; they are competent, responsive and productive). • A well-functioning health information system is one that ensures the production, analysis, dissemination and use of reliable and timely information on health determinants, health system performance and health status.	• A well-functioning health system ensures equitable access to essential medical products, vaccines and technologies of assured quality, safety, efficacy and cost-effectiveness, and their scientifically sound and cost-effective use. • A good health financing system raises adequate funds for health, in ways that ensure people can use needed services, and are protected from financial catastrophe or impoverishment associated with having to pay for them. It provides incentives for providers and users to be efficient. • Leadership and governance involves ensuring strategic policy frameworks exist and are combined with effective oversight, coalition-building, regulation, attention to system-design and accountability.
-

Source: WHO, 2007

The following is not a comprehensive comparison of the two countries’ health systems and their performances, but an overview of their systems as they relate to the key building blocks named above. Some of the building blocks, such as the health management information

system and the availability of medical products and technologies, will also be discussed in Chapter Five in the context of malaria control specifically. In essence, the section on the health systems of the two countries shows that Rwanda has been able to achieve better outcomes with relatively less capacity because of strong political will at the leadership level.

Health service delivery

Health care in Uganda is delivered through public, private-not-for-profit (PNFP) and private-for-profit (PFP) providers, as well as traditional and complementary practitioners. PNFPs are involved in health service delivery at different governance levels. Data on the distribution of health facilities indicates that 28% of facilities were run by PNFPs, highlighting the significant role of NGOs in the health sector (Hutchinson, Habte & Mulusa, 1999). Most of the PNFPs are faith-based (Okwero et al., 2010). The public sector health services' delivery system is tiered alongside the politico-administrative structure of the country, with regional and national (referral) hospitals providing specialist care to several districts and regions, general hospitals and Health Centers IV and III providing services at the district (constituency) level, and Health Centers I and II providing services at the sub-district level (village) level. This service delivery structure is intended to ensure better access, safety, and quality of care for all Ugandans (UMOH, 2015).

The Ugandan health care system is designed to manage mainly acute illnesses such as lower respiratory infections, malaria, and diarrheal diseases; it is not well equipped to address chronic illness (Katende et al., 2015). The following table shows the top causes of mortality in Uganda that the health care system is designed to address.

Table 2: Top ten causes of hospital-based mortality for all ages 2013/2014

Data	Under 5 Mortality	Under 5 Mortality %	5 and over mortality	5 and over %	Total deaths	Total %
Malaria	2,036	19.9%	2,028	9.4%	4,064	12.8%
TB (new smear positive cases)	97	1.0%	2,659	12.3%	2,756	8.6%
Pneumonia	1,263	12.4%	1,112	5.1%	2,375	7.5%
Anaemia	1,241	12.2%	1,105	5.1%	2,346	7.4%
Perinatal Conditions (in new borns 0 -7 days)	991	9.7%	0	0.0%	991	3.1%
Other Tuberculosis	44	0.4%	766	3.5%	810	2.5%
Injuries - Road Accidents	122	1.2%	623	2.9%	745	2.3%
Cardiovascular Diseases (Other)	72	0.7%	621	2.9%	693	2.2%
HIV Related Psychosis	22	0.2%	611	2.8%	633	2.0%
Abortions	0	0.0%	630	2.9%	630	2.0%
All Others	4,322	42.3%	11,503	53.1%	15,825	49.7%
Total	10,210	100.0%	21,658	100.0%	31,868	100.0%

Source: UMOH, 2014

The table above shows that malaria is the leading cause of mortality in hospitals (12.8%), with an even greater burden on children under the age of 5 (19.9%), followed by new smear positive tuberculosis (8.6%), pneumonia (7.5%), anaemia (7.4%) and perinatal conditions in newborns (3.1%). Over the last decade or so, there has been an increase in mortality due to road accidents (2.3%) and cardiovascular diseases (2.2%). Non-smear positive tuberculosis (2.5%), HIV (2%), and abortions (2%) make up the rest of the top ten causes of mortality in hospitals.

Uganda's health system has a mixed record of performance. In terms of the organization of care, services offered by PNFP facilities are integrated with the public health care system at the central level and efforts are being made to integrate disease-specific vertical programs such as TB, HIV/AIDS, and malaria control into the health system. However, care provided by private sector providers is not integrated into mainstream public healthcare delivery, and therefore coordination is a challenge (UMOH, USAID & Makerere University School of Public Health, 2012). Moreover, the referral system, which is formalized and well-articulated in the MOH's policy documents on service delivery, does not function as planned. Major challenges include the lack of ambulance services and the un-

availability of emergency medicine, poor road infrastructure, and the inability of health facilities at the local level (e.g Health Center IVs) to provide emergency care such as blood transfusion and simple operations such as caesarean sections (MoH and Macro International, 2008).

The Ugandan government has been trying to achieve universal service coverage by implementing the Uganda National Minimum Health Care Package (UMOH, 2014). Assessing service delivery using indicators such as immunization rates, the system's performance is not too bad. For example, in 2006, 84% of eligible children received the DPT3 vaccine, well above the 70% sub-Saharan average; population coverage with pentavalent vaccine improved from 76% in 2010/2011 to 90% in 2013/2014, as did measles vaccine coverage (from 72% in 2010/2011 to 85%, 2012/2013 (Okwero et al., 2010, UMOH 2015). Moreover, drug availability improved as indicated by the number of health facilities that did not experience stockouts for the last two quarters of every year. This indicator rose from 21% in 2009/2010 to 57% in 2013/2014 (UMOH, 2015). However, services are not always delivered in a timely manner, even after the abolition of user-fees in public health facilities in 2001(UMOH, USAID & Makerere University School of Public Health, 2012; Chandler et al., 2013). Access to care has not improved, although 72% of the population in Uganda now lives within a 5 km radius of a health facility, and the burden remains greatest on the country's poor (UMOH, USAID, & Makerere University School of Public Health, 2010; USAID, 2012). A study by Kiwanuka and colleagues (2008) found that:

the poor and vulnerable experience a greater burden of disease but have lower access to health services than the less poor. Barriers to access arise from both the service providers and the consumers. Distance to service points, perceived quality of care and availability of drugs are key determinants of utilisation. Other barriers are perceived lack of skilled staff in public facilities, late referrals, health worker attitude, costs of care and lack of knowledge. (p. 1067)

Okwero and colleagues (2010) found that barriers to the utilization of services include expense (32%), mildness of illness (46%) and the distance to a health facility (10%).

Nankabirwa and colleagues (2009) found that despite the availability of appropriate malarial drugs in Uganda, over 40% of children under the age of five who needed treatment did not get prescriptions due to under-diagnosis. Yeka and colleagues (2012) note additional shortcomings in the Ugandan healthcare system, including “poor coverage of lower-level health centers and village health teams...and lack of effective supervision” (p.192).

Uganda has put systems in place to improve the quality of care. The MOH has a Quality Assurance Unit that is responsible for ensuring quality in the health sector. There are professional associations and councils mandated to maintain professional standards, and specialized agencies such as the National Drug Authority responsible for controlling the quality and safety of drugs and medical commodities. However, challenges such as insufficient resources have negatively affected the quality of care in Uganda (Ssengooba, 2010).

In 2000, the government launched a program known as the Yellow Star Program as part of the Delivery of Improved Services for Health (DISH) II Project whereby health facilities that met the government’s 35 standards for quality of care were accredited. The project resulted in modest improvements in the quality of care. However, the program ended in 2006 due to insufficient funding (Bateganya et al., 2009). In a recent study, Chandler and colleagues (2013) argue that “valued qualities in health care [in Uganda] went beyond absolute resources and skills, particularly to positive interpersonal interactions, and that the enactment of these valued qualities was contingent on navigation of power relationships by different actors including health care seekers, health workers and district officials” (p. 9). They further argued that a genuine reorientation towards patient-centred service and respect on the part of health workers will improve the quality of care in Uganda (Chandler et al., 2013).

Health financing

Multiple stakeholders are involved in funding health care in Uganda including government, private firms, households and development partners. According to Uganda's National Health Accounts, in 2013/2014 41.5% of the health financing came from development partners, 41.1% from private sources, and 17.4% came from public funds (UMOH, 2015). Expenditure on health as a percentage of the total government budget is 8.2% for 2012/2013, short of the 15% spending target set by African head of states in the Abuja declaration. Per capital expenditure on health is, as discussed below, below the WHO recommended amount (WHO, 2011, UMOH, 2015). The bulk of the health budget (53%) goes to curative care, while 16% is spent on preventive care.

Examining the distribution of health expenditure between public, private and donor funds suggests two important features of Uganda's health system. Accessing health care relies on considerable out of pocket expenditure which might cause the poor to suffer financial catastrophe or put them at greater risk of failing to access quality and "equitable" health care. Providing health care relies heavily on external funding which raises questions about its sustainability (Global Fund, 2015). While the government has relied on donor funding its contribution to per capita expenditure on health shows an upward trend, increasing from 9% in 2010/2011 to 12% in 2013/2014 as illustrated in the table below.

Table 3: Government allocation to the health sector 2010-2014

Year	GoU Funding (Ushsbns)	Donor Projects and GHIs (Ushsbns)	Total (Ushsbns)	Per capita public health exp (UGX)	Per capita public health exp (US \$)	GoU health expenditure as % of total government expenditure
2010/11	569.56	90.44	660	20,765	9.4	8.9
2011/12	593.02	206.10	799.11	25,142	10.29	8.3
2012/13	630.77	221.43	852.2	23,756	9	7.8
2013/14	710.82	416.67	1127.48	32,214	12	8.7

Source: UMOH, 2014

As the table shows, the government allocation of health sector funding has increased over the last few years. However, per capital expenditure on health is far below the US \$34 per capita recommended by the WHO's Commission of Macro Economics on Health (CMH).

To improve service coverage and create sustainable funding for health care, the Ugandan government is in the process of introducing mandatory health insurance for all public servants and employees in the formal sector by 2017. Past initiatives to design and sustain Community Health Insurance (CHI) faced low enrollment due to “inability to pay the premium, poor quality of health care, the rigid design in terms of enrolment requirements and problems of trust” (Basaza et. al, 2008). Another major impediment is that the health sector is not able to absorb additional spending without compromising on efficiency, partly due to the shortage of human resources for health, and partly due to waste in the system (Gable et., al, 2014).

Workforce

Although the centrality of effective health workers to effective health systems has long been recognized, the last decade has seen increased interest in addressing a shortage of human resources as key to improving health systems. The 2006 World Health report examined the inadequate number of skilled health workers available to the health systems in

57 countries and recognized the state of HRH in these countries as a “crisis”. They called 2006 to 2016 the “decade of action” to address this crisis in order to achieve the health-related Millennium Development Goals. Since then, global efforts to address the crisis in health workforce shortfalls have resulted in five World Health Assembly (WHA) resolutions, and the WHO report *Health in 2015: from MDGs, Millennium Development Goals to SDGs, Sustainable Development Goals*, which recommends that the international community “substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States” [in order to] ensure healthy lives and promote well-being for all at all ages (Buse & Hawkes, 2015, p. 4).

Uganda believes that “Health workers are the most important component of any health system: They design it, manage it, and deliver preventive and curative services. They are also the largest component covering 60% or more of the total health budget” (MOH, 2015a, p. 5). According to the UMOF (2017), “sufficient, competent, equitably distributed, motivated...health workers have to be available at all levels of the health system in order to achieve a good standard of health by all people in Uganda” (p. 2). Uganda has been conducting bi-annual HRH audits since 2009 to bolster HRH strategies for achieving health policy goals. So, does the country have sufficient, competent, equitably distributed, and motivated health workers at all levels of the health system?

With 1.8 health workers per 1000 population, Uganda does not meet the WHO recommended target of 2.28 health workers per 1000 population; however, it fares better than Rwanda in terms of this important health system building block (UMOH, USAID & Makerere University School of Public Health, 2012). In other words, for every 100,000 people in Uganda there are 8 physicians, 55 nurses, and 16 midwives (Okwero et al., 2010). It is possible that the health worker-to-population ratio is overestimated given that the register

kept by the professionals' council is not updated regularly (Willcox et al, 2015). The possible inaccuracy is compounded by the uneven geographical distribution of the health workforce, which has a strong bias towards the country's central region, creating greater shortages of health workforce personnel at lower level health facilities in rural areas than at higher level facilities in more urban centres (Okwero et al., 2010; Willcox et. al, 2015;). The 2015 HRH bi-annual report, however, suggests that the government's drive to boost the health workforce at HC I and II level facilities might have contributed to improved staffing levels in public health facilities generally. The number of approved staffing positions filled rose from 48% to 67% at the local government level, and from 53% to 69% nationally during the 2009-2014 period (UMOH, 2015). Table 4 shows filled positions and vacancies at national and local level health institutions and facilities:

Table 4: Filled positions and vacancies at health institutions and facilities

NAME	No. of Units	Total Approved Norm	Positions Filled	Vacant	Filled %	Vacant %
Butabika NRH	1	424	359	63	85%	15%
Mulago NRH	1	2,801	1,880	581	67%	24%
UBTS	1	242	215	27	89%	11%
UCI	1	213	122	91	57%	43%
Uganda Heart Institute	1	190	134	56	71%	29%
RRH	14	4,744	3,820	924	81%	19%
Sub-Total Central Level	19	8,272	6,530	1,742	79%	21%
Total district staffing	111	46,851	31,357	15,494	67%	43%
Health facilities in KCCA	17	3,933	2,792	1,141	71%	29%
Municipal Councils	22	176	111	65	63%	35%
Sub-Total Local Government	150	50,960	34,260	16,700	67%	33%
Total National Level	169	59,232	40,790	18,442	69%	31%

Source: UMOH,2015

In Uganda, districts, with guidance from the central government, are responsible for the recruitment and selection of staff and are mandated to ensure that public health facilities have the minimum staffing requirements needed to deliver basic services. This function was delegated to districts as part of decentralization in the late 1990s. According to Ssengooba and colleagues (2007) the decentralization of this function might have led to nepotism in

recruitment at the local level but created instead an opportunity for key actors such as local authorities, district boards and primary health workers to build a shared perspective on the resource shortage and other challenges faced by local health workers.

In terms of ensuring health workforce competency, Uganda has over 149 accredited public and private health training institutions. The requirements for accreditation are aimed at building a workforce qualified to meet the public health needs of the Uganda population. However, the shortage of qualified trainers at these institutions, and “inadequate space and equipment in the skills laboratories” negatively affect the quality of the training they can offer. Additionally, the supervision of medical students in clinical practice settings is limited “resulting in [the] production of less competent health workers” (UMOH, 2015).

Uganda also faces challenges motivating and retaining its health work force, particularly in public health facilities. A recent study by Willcox and colleagues (2015) found that “only 35% of 790 medical graduates [from Mbarara University of Science and Technology] are currently working for the government, while 51% are working for HIV/AIDS-related NGOs and 12% have left the country “(p.4). It is estimated that over 54% of doctors that stay in government facilities supplement their income by working in private health facilities as well (Paina et al., 2014). A study by Chandler and colleagues (2013) found that practitioners who work in public facilities sometimes “refuse or provide substandard or rude care to certain patient groups, particularly patients who they considered not to have any monetary or social capital to offer in return for services” (p. 7). Poor living conditions, poor working conditions, low pay, limited career advancement opportunities and a lack of incentives are the reasons why the majority of doctors do not want to work in public health facilities, resulting in doctors and medical practitioners leaving their jobs in search of better pay either inside or outside Uganda (Willcox et al., 2015). The Ugandan government has, in the past, come under fire for encouraging this “brain drain” and failing to retain its health

workforce. For example, in 2015, the government abandoned an initiative to support Trinidad and Tobago by sending them 263 health workers after civil society groups requested a court injunction to block the plan, and the US, EU and Belgium put pressure on the government to let the idea go (Mwesigwa, 2015).

Health status: achievements of the health system

Overall, Uganda's investments in rebuilding the country's health system have led to improvements in its population's health status. The key health impact indicators Uganda uses, such as the Neonatal Mortality Rate (NMR), infant mortality rate (IMR), Under Five Mortality Rate, and Maternal Mortality Ratio (MMR) all indicate positive trends between 1995 and 2015 as figure 7 shows.

Figure 7: Under Five Mortality Rate. and Maternal Mortality Ratio

Source: UMOH, 2016

The figure shows that the NMR, which refers to newborn deaths occurring in the first 28 days of life, decreased from 33 per 1,000 live births in 2001, to 22 per 1,000 live births in 2015, whereas the IMR decreased from 85 per 1000 live births in 1995 to 44 per 1000 births

in 2015 (UMOH, 2016). These improvements are partly attributed to delivery with skilled birth attendants, the availability of life saving drugs, the referral of sick babies to appropriate care through the Integrated Community Case Management (iCCM), and the application of high impact child survival interventions. Uganda's MMR has decreased to 320 per 100,000 live births in 2015, from 438 per 100,000 live births in 2011 (UMOH, 2016). It should be noted, however, that malaria remains the leading cause of death among infants and under-fives (UMOH, 2016). In 2015/16, malaria was responsible for 43% of hospital-based under-five deaths (UMOH, 2016). The lack of major improvements in malaria morbidity and mortality might suggest lack of political will to tackle the disease even compared to other infectious diseases.

In particular, Uganda is widely considered a success story in HIV control. The accolade is not without merit. Incidences of "HIV infection have fallen, from about 15 percent in the early 1990s to about five percent in 2001" (Murphy et al., 2006, p.1443). The national strategy focused on (ABC) "Abstinence, **B**e faithful, and **C**ondoms, although there are controversies around the approach, particularly the Abstinence and Be faithful components, and its role in the decline of HIV in Uganda,"; voluntary counseling and testing (VCT); and the prevention of mother-to- child transmission (MCT). Overall, combatting HIV/AIDS was effective because of the government's political commitment to the agenda. In fact, very few other African countries "had such a level of political commitment to HIV reduction" in the late 1980s and 1990s (Blum, 2004). The President's lead role in making the fight against AIDS a national priority, and his open challenging of church leaders, politicians and others who believed AIDS was a homosexual disease, set the stage for effective government intervention and the mobilization of resources (Tumushabe, 2006; Parkhurst, 2004; Putzel, 2004). Explaining how he became committed to combatting the disease, Museveni notes:

I was not then [1986] aware that the problem had become so serious but, by chance, I had sent some 60 military people to Cuba and at that time we did not carry out HIV

tests because we thought that everybody was all right. When the 60 got there, the Cubans tested them...Out of the 60, 18 were found to be HIV positive. When I went to the Non-Aligned summit in Harare that year [Cuban President] Fidel Castro took me aside and said: "You know there is a big problem in your country," and he told me the story. I had a meeting...in my office and I did not give them [doctors] kind words, but out of our quarrel we evolved a programme of talking openly about AIDS and educating people about its spread. (cited in Tumushabe, 2006, p. 8)

Tumushabe (2006) observes that it is possible that Museveni's active role was motivated by the fact that HIV/AIDS was eroding the military, an important power base. Hitting so close to home may have inspired his commitment to deal with HIV, a commitment that is lacking in the fight against malaria, as the empirical chapters will show.

Rwanda

Rwanda, like Uganda, is a landlocked country in Eastern Africa. It is bordered by Uganda, Congo, Burundi and Tanzania. Rwanda's population is estimated at 11.27 million (National Institute of Statistics, 2017). There are three main ethnic groups in Rwanda – Hutu (84%), Tutsi (15%), and Twa (1%), although the definition of ethnicity in Rwanda is contested, as we will discuss below. Like Uganda, the state of Rwanda is the product of a long process, forging a union between disparate groups, first under a kingdom, then under a colonial administration, and finally as an independent Rwandan state. An overview of the evolution of the state is essential for understanding the state building process, the evolution of state-society relations, and how these dynamics might bear on how the state functions.

From kingdom to colonial rule

Rwanda has attracted vast scholarship, largely due to the genocide against the Tutsi and moderate Hutus in 1994. Most of this scholarly work pays attention to the question of ethnicity and how it intersects with state building in Rwanda. Yet the history of Rwanda is as contested as the various interpretations of the causes of the genocide. Chiefly, the questions of ethnicity and the character of interaction between the Hutus and Tutsis in pre and post-colonial Rwanda are contested. According to some scholars, precolonial Rwanda was home

to heterogeneous groups, mainly the (lower) Hutu class (peasants who belonged to various ethnic groups, including poor Tutsi), and the (upper) Tutsi class (pastoralists made up of different ethnic groups, including Hutus from the higher strata of the social system), the whole suggesting the existence of “social mobility” (Mamdani, 2001). According to others, Hutu and Tutsi inhabited precolonial Rwanda as two distinct ethnic groups (Lemarchand, 1966).

Much of the literature on Rwanda touches on how the Tutsi kings ruled Rwanda, giving credence to arguments about the existence of rulers (Tutsi) and ruled (Hutu), though not necessarily to arguments that the Tutsis were superior to the Hutus (Mamdani, 2001). The idea of Tutsi superiority was exacerbated – if not created - by the advent of European colonial powers and the missionaries and explorers who, by design or happenstance, served as advance teams for colonial occupation and propagated stereotypes about Rwandan society (Mamdani, 2001; Collins, 2014). As Prunier (1995) notes, late 18th century explorers such as John Hanning Speke, and early 19th century missionaries, including Father van den Burgt and Father Gorju, believed that the Tutsi of Oromo origin from Ethiopia were not only more physically appealing, but also more intelligent than the Hutu, a differentiation that marked the policies of the German and Belgian colonial powers.

British historian Basil Davidson observed that, “When the Germans became involved in the ‘scramble for Africa’ in 1890, they found in Rwanda and Burundi no trace of tribalism. Those who lived there spoke one language, were one people, divided over occupation groups. No classes!” (Collins, 2014, p. 42). Following the defeat of Germany in the First World War, the Belgian authorities took over Ruanda-Burundi and ruled it until 1962. According to Mamdani (2001), the Belgian authorities further polarized ethnicity by adopting policies that institutionalized the supremacy of the Tutsi over the Hutu, by, for example, providing

education and economic opportunities to the Tutsi, opportunities initially denied the Hutu (Gibbs, 1994).

In 1957, a group of Hutu intellectuals who had benefitted from the expansion of missionary schools to include the Hutus in the 1940s, issued the Hutu manifesto in which they called for racial equality and blamed their disenfranchisement on the ‘foreign’ Tutsis, a characterization that would be repeated in the 1990s (Newbury, 1998). The narrative of Tutsi as ‘foreign’ was further propagated by the Party of the Hutu Emancipation Movement (PARMEHUTU), which was established in 1959. Some of the other political parties that emerged in the late 1950s, such as L'Association pour la Promotion Sociale de la Masse (APROSOMA), the Union Nationale Rwandaise (Rwandese National Union or UNAR), and the Rwanda Democratic Rally (Rassemblement Democratique Ruandaise — RADER), were not able to counter PARMEHUTU’s political narrative of securing power for the marginalized Hutu at the expense of the Hutu and Tutsi elite with their more broad-based nationalist agendas (Prunier, 1995).

The tension culminated in the 1959 social revolution in which several hundred Tutsis were killed and thousands, including the Tutsi monarchists and elite, were forced to flee to Uganda, then a British protectorate, and to other neighboring countries (Mamdani, 2001). The 1959 revolution, which continued until Rwanda became independent in 1962, led to the overthrow of the king, the abolition of the monarchy, and to haphazardly organized local elections, which were won by the Hutu movement, PARMEHUTU. The Belgian authorities did not support or intervene in the revolution (Mamdani, 2001). The emergence of a Hutu elite is explained by two social processes: the expansion of education opportunities which started to benefit the Hutus in the 1940s; and the introduction of the cash crops (coffee and cotton) that linked the Hutu peasants to the market economy (Mamdani, 2001). As Mamdani

puts it, these two social processes “would together erode the social supremacy of the Tutsi while, for a time, leaving intact their political supremacy” (p.111).

In addition to the polarized political arena, the Belgian authorities also left behind a legacy of limited economic development and few social services. The colonial government integrated the economy of Rwanda with that of Burundi and Congo, and introduced coffee and cotton, which would later become the mainstay of Rwanda’s export economy, along with tin production, which employed about 9% of the population at the time of independence in 1962 (Latham-Koenig, 1962). The colonial government launched infrastructure development programs with a resource envelope of about 400 million Belgian francs per annum in the early 1950s, leading to the construction of an international airport in Bujumbura and the electrification of a few districts (Latham-Koenig, 1962). The Belgians also continued the Nyigynia Kingdom’s practice of forced labour, causing many people to flee to neighbouring Buganda Kingdom in Uganda. On the eve of Uganda’s independence in 1962, it was estimated that over 200,000 Rwandese were working in Buganda (Baker, 1970).

On the social services front, the authorities built a few hospitals and health centres that provided health services. Unlike in Uganda, in Rwanda the colonial power did not leave a strong health care system behind, although church missionaries established health centres and hospitals, including Kigali’s teaching hospital, Gahini Hospital, which was established as a health center in 1918, and Kabgayi Hospital, established in 1927. A few social centers (Foyers Sociaux) manned with a social worker, a medical professional, and home economics teacher were set up in towns and industrial centers to provide limited services including adult education and basic hygiene for women (Nicaise, 1960). The churches also established missionary schools in many parts of the country, although these benefited Tutsis more than Hutus. Between 1947 and 1962, the Belgian authorities spent about \$60 million on schools, hospitals, sanitary and water systems through the Fund for Native Welfare in rural areas

(Nicaise, 1960). Latham-Koenig (1962) estimated that about 3000 primary schools, mainly missionary schools, and a few dozen high schools existed at independence including the prestigious Astrida Secondary School.

From independence to genocide

Rwanda's transition to independence in 1961/2 was haphazard and also marred by sectarian violence. Following the UN-endorsed referendum on the monarchy, and parliamentary elections in September 1961, in which the radical PARMEHUTU won and the kingdom was abolished, tensions between the Hutus and Tutsis became violent. The exiled Tutsi, in refugee camps in neighboring countries, formed a rebel group known as the Inyenzi or *cockroaches* that targeted Hutu officials in some border localities (Mamdani, 2001). Between February and March of 1962, the rebels killed about six Hutus, including three police officers and two public servants, triggering reprisals that led to the killing of between 1000 and 2000 Tutsis (Mamdani, 2001). Although a cabinet with representatives from both the Hutu and Tutsi political parties was formed by the PARMEHUTU government, the rebel attacks and reprisals, in which some Hutus and as many as 20,000 Tutsi were killed, and 150,000 Tutsis displaced to neighboring countries, continued through 1963 and 1964 (Human Rights Watch, 1994). During this time, the general Hutu population targeted ordinary Tutsis, burned their houses, and took over their land and properties while government targeted the Tutsi elite (Mamdani, 2001).

The decade (1963-1973) during which President Kayibanda ruled Rwanda was characterized by the centralization of authority, as the president personally controlled appointments for the entire bureaucracy (Prunier, 1995). His administration was so preoccupied with Hutufication and the alienation of the Tutsis that Rwanda's colonial powers, Germany and Belgium, were cast as friends or even "heroes" who helped the Hutus to get rid of the Tutsi colonial yoke (Prunier, 1995). Internal strife was further exacerbated by

the government's neglect of Hutu peasants which resulted in their discontent with local authorities and rich Hutus (Collins, 2014). In 1973, the commander of the military, Juvénal Habyarimana, capitalized on the growing discontent and took over power through a bloodless military coup.

Given popular discontent with the Kayibanda regime, and Habyarimana's declaration that he would be a president for all Rwandans, the birth of the second republic was largely welcomed by Hutus and Tutsis (Prunier, 1995). The Habyarimana era, even before the war in 1990 (see below), was filled with contradictions as far as ethnic harmony and political participation are concerned. On the one hand, the second republic was reconciliatory: no major ethnic-based social upheavals took place since Tutsis were not persecuted during this period; the quota policy which had limited the participation of Tutsi in the socio-economic life of the country was less enforced, particularly in the education sector; and a few Tutsis even made fortunes during this era (Collins, 2014, Prunier, 1995). On the other hand, the government continued to implement policies that disenfranchised the Tutsi in the political sphere: Only one Tutsi was included in the 1974 cabinet; Tutsis were not allowed to serve in the army, nor were Hutus in the army allowed to marry Tutsi; and Tutsi participation in local government was close to non-existent (Mamdani, 2001).

The relative peace and ethnic harmony that characterized the second republic until the early 1990s was not accompanied by major political reforms. Rwanda remained a one party state controlled by Habyarimana and a wealthy and powerful inner circle from his region in, northern Rwanda (Newbury, 1998). According to Golooba-Mutebi (2013) "by the mid-1980s, a third of the 85 most important appointments in government and almost the entire leaderships of the army and security agencies were from Gisenyi prefecture, Mrs Habyarimana's birthplace in the North" (p. 7). Being a member of the president's party, the National Revolutionary Movement for Development (MRND), created in 1975, was

compulsory for every citizen including children (Prunier, 1995). The party and the state had tight control over people's lives (Prunier, 1995).

For some, this tight control meant sufficient discipline existed to put politics aside and focus on development (Prunier, 1995). This focus resulted in some progress in the area of economic development: the government's efforts to diversify the export economy led to the reduction of primary agricultural products from 80% of GNP in 1962 to 48 % of the GNP by 1986, while the service sector grew from 8% to 21%, and manufacturing from 12% to 30% of GDP for the same period (Golooba-Mutebi, 2013). The performance of the government in managing the economy was so impressive that Rwanda, which had the lowest per capita income in the region in the early 1970s, had a higher per capita income than all its neighbors by 1990, although Uganda was in turmoil and drawing a comparison with stable Rwanda during this period might not give an accurate picture (Mamdani, 2001). Similarly, inflation and debt were comparatively low relative to other countries in the region (Mamdani, 2001).

The performance of the government in the social sector was significant as well: school enrolment improved from 49.5% in 1978 to 61.8% by 1986, and health and medical care improved leading to a decreased mortality rate (Golooba-Mutebi, 2013; Mamdani, 2001). The government's performance was aided by both traditional donors (Belgium and Germany), and new contributors; the United States, Canada and Switzerland. Foreign aid increased from 5% of GNP in the early 1970s to 22% by 1991 (Prunier, 1995).

Nonetheless, Rwanda's economic growth, like that of many African countries, slumped in the 1980s with the drop in price of the country's primary export commodity, coffee (Golooba-Mutebi, 2013). It is estimated that the price of coffee was slashed by half. Income from coffee exports fell from \$144 million in 1985 to about \$30 million in 1993 (Mamdani, 2001). By the late 1980s, Rwanda's status as a food producer fell from being one of the highest in the region in the late 70s and early 80s, to being one of the poorest

performers in the region. Tin production came to a halt as prices went down and the government lost the capacity to maintain mining (Mamdani, 2001). This downturn was exacerbated by the “one-party state under which clientelistic rent seeking was generalized, competitive, and disorganized. Businesses needed 'godfathers' within the administration or the military, and through this mechanism the small business sector financed politics” (Booth & Golooba-Mutebi, 2013, p. 386).

In 1990, Rwanda turned to the International Monetary Fund (IMF) and the World Bank for assistance, but the Bretton Woods institutions made support conditional on the implementation of structural adjustment programs (SAPs). Following the prescription of the IMF and the World Bank, Rwanda devalued its currency, hiking the prices of goods; reduced spending on social goods such as education, health, and water, leading to the deterioration of service delivery; and froze wages, negatively affecting living conditions in the country (Golooba-Mutebi, 2013). In the end, the reform was, in the eyes of the IMF and World Bank, not robust enough to reduce the budget deficit to 5% of GDP as per the target set by these institutions. The government, which failed to eliminate coffee price guarantees for peasants, was criticized for not implementing the reform effectively; the IMF and the World Bank therefore withheld aid (Golooba-Mutebi, 2013). The consequences of the resulting crisis were dire: GDP fell by 7.7 percent by 1990 and 8 percent in 1993 alone; and GDP per capita slipped from \$330 in 1985 to \$200 in 1989 (Mamdani, 2001). This was further complicated by a famine in the southern part of the country and the diversion of the country's meager resources to a war with Tutsi rebels. Economically, Rwanda was in very bad shape, but worse was yet to come from the political front. Some have argued that the IMF and the World Bank were responsible for the disaster that engulfed Rwanda in the next years (Chossudovsky, 1999).

On the political front, the Habyarimana government was caught between a rock and a hard place. On the one side, Western powers and internal opposition were pushing for democratization following the end of the Cold War. On the other side, exiled Tutsis in Uganda challenged the government militarily. In October 1990, the Rwanda Patriotic Front (RPF) launched a surprise attack from Uganda and not only took over Northern Rwanda but came very close to Kigali, the capital (Collins, 2014). The Rwanda government, with military support from France, Belgium, and Zaire, repulsed the RPF rebels and claimed victory over the Tutsi rebels, a victory that would turn out to be ‘premature’ (Collins, 2014). The fact that the RPF launched the attack from Uganda and that the attacking force was led by the former Ugandan deputy minister of defense and commander in the army, General Fred Rwigyema, makes a brief discussion of the Uganda factor very important. Two major issues are particularly worthy of note: the rise of RPF in Uganda, and the role of the Ugandan government.

The RPF is an offshoot of welfare organizations that the Tutsi refugees set up in 1979 and 1980 to attend to the wellbeing of refugees in Uganda. The election, in 1980, of Milton Obote as Uganda’s president in what is widely believed to have been a rigged election, incited Museveni, the defense minister, to create the National Resistance Movement (NRM) (Hooper & Pirouet, 1989). Obote was already hostile to the Banyarwanda (Hutus and Tutsi in Uganda and Rwanda) because he felt they had opposed him in his first presidency (1962-1970), but this time he also accused Museveni of being a Rwandan causing trouble in Uganda (Prunier, 1995). The accusation was a green light for the security forces to target the Banyarwanda, both the refugees and the Ugandans, leading to the killing of many and the displacement of thousands (Prunier, 1995; Hooper & Pirouet, 1989). This pushed the Banyarwanda to join the NRM in droves and by 1986, the Banyarwanda made up 20% of the National Resistance Army, the NRM’s military wing (Prunier, 1995). Not able to operate within this tense

political environment, the RANU moved to Nairobi in 1981 and operated from there until 1986 when the NRM took over power in Uganda.

In 1987 RANU moved back to Uganda and changed its name to the Rwanda Patriotic Front. A year later, Banyarwanda officials in the Uganda government began preparing for war with Rwanda in earnest. These officials included the former Ugandan deputy minister of defense and deputy commander of the army, General Fred Rwigyema; and the acting head of military intelligence, Paul Kagame (Collins, 2014; Prunier, 1995). These men led the 1990 attack, in which over 2500 Ugandan soldiers of Banyarwanda origin participated along with 1500 Rwandans mobilized from refugee camps and neighbouring countries (Prunier, 1995, Collins, 2014). After the Rwandese forces, helped by Zaire's presidential guard, repulsed the RPF, the rebel group retreated to the Ugandan border. The Ugandan leadership characterized the commanders and soldiers that joined the RPF as 'deserters' and denied it had any knowledge of the RPF attack. However, the accounts of various scholars, including Collins (2014) and Prunier (1995) as well as a senior RPF commander I interviewed, suggest that Uganda supported and armed the RPF, showing the close relationship between Uganda and Rwanda that will have implications for rebuilding Rwanda's health system later on.

Following the attack, as Prunier (1995) aptly puts it, Rwanda "settled down into a war culture", where not only the Tutsis were targeted but also internal Hutu opponents or anyone who could challenge the Habyarimana government. This crackdown went well beyond punishing political opposition. Within weeks the Rwandan security forces as well as the Zairean army had started looting, raping, and killing civilians (Prunier, 1995). Civilians were incited to participate in the crackdown on the RPF following the attack. The Minister of Defense urged the public via radio broadcasts "to track down and arrest infiltrators", leading to the massacre of 348 Tutsis in Mutara region within 2 days (Prunier, 1995). Meanwhile, the RPF lost its leaders, including Rwigyema, during the October 1990 attack and entered into a

phase of reorganization under the leadership of Paul Kagame, who was recalled from military training in the US. Kagame, with the support of Uganda and Rwandese in the diaspora, was able to rebuild the RPF out of sight in bushy and mountainous northwestern Rwanda on the Uganda border. By mid-1991 RPF forces reached 15,000 (Mamdani, 2001, Prunier, 1995). Within two years, the RPF overwhelmed the FAR and took over many districts and regions but the Hutu population fled areas liberated by the RPF, leading to the displacement of about 950,000 Hutus by 1993 (Mamdani, 2001).

The Rwanda government used RPF's successive military victories to propagate the idea that the Tutsis were making a comeback and intended to install kings and colonize the Hutus again (Prunier, 1995). Media associated with the government were used as propaganda tools to spread these messages and sow hatred towards the Tutsi (Mamdani, 2001). The Kangura newspaper, for example, which was controlled by the family of the first lady, published the 'Hutu Ten commandments' instructing Hutus to avoid any association with Tutsi and encouraging them to wipe out Tutsi influence at the individual, communal, and nation levels (Baines, 2003). In 1992, the ruling party created a youth wing known as the *Interahamwe* (those who attack/work together), whose members were drawn from the disenchanted and unemployed Hutu youth. The *Interhamwe* militia would play a major role in the disaster that befell Rwanda in the next two years (Mamdani, 2001).

By the beginning of 1994, the lexicon of genocide was being used by the Hutu extremists. This discourse is illustrated by an article in the January 1994 issue of the Kangura newspaper in which they state: "We will begin by getting rid of the enemies inside the country. The Tutsi 'cockroaches' should know what will happen, they will disappear" (cited in Mamdani, 2001, p. 212).

On April 6, 1994, the Presidents of Rwanda and Burundi, returning home from a regional meeting in Tanzania, were killed when their plane was shot down as it begun to

descend to land at Kigali airport (Prunier, 1995). Immediately, the radio station, Télévision Libre des Mille Collines (RTLM), started broadcasting hate propaganda and calling for revenge for the president's assassination (Prunier, 1995). Tutsis became the target of the *Interahamwe* militia, the army, and local authorities, leading to genocide. Between 800,000 and 1 million Tutsis and moderate Hutus, including the Prime Minister, Agathe Uwilingiyimana, were murdered within 100 days (Mamdani, 2001; Farmer et al., 2013).

The genocide remains a dark mark on the conscience of the world. There is consensus on the failure of the UN and by extension the international community in general to boost the presence of the Blue Helmets and to broaden their mandate and capacity in order to stop the genocide (Mamdani, 2001; Prunier, 1995). In the words of the UN-established commission of enquiry for the genocide, "the failure by the United Nations to prevent, and subsequently, to stop the genocide in Rwanda was a failure by the United Nations system as a whole" (UN, 1999, p.3). However, as Newbury (1998) observes, understanding genocide is a complex undertaking. It involves a close look at multiple dimensions including "ethnicity, outside influences, gender issues, and ecological issues" (p.73). I must note here that this discussion will not do justice to the vast topic, it can do little more than touch on some aspects of these factors.

As the genocide raged on, the RPF made military gains throughout the country. The RPF was also accused of human rights violations, including the killing of people suspected of belonging to the *Interahamwe* militia (Prunier, 1995). The whole situation was further complicated by the displacement of hundreds of thousands, creating a humanitarian disaster that could not be managed by the humanitarian organizations within the country. It is estimated that over a million people had crossed into Zaire by July, 1994. The RPF took over Kigali and a new government was sworn in on July 19, 1994.

The legacy of the conflict for health in Rwanda

As noted above, the pre-genocide government had made attempts to improve social services and build a health-care system emphasizing the decentralization of health service delivery in order to improve access to health care in districts and rural areas across the country. The government's efforts were undermined by the deteriorating political economy of the late 1980s (Kayunga, 2007). The public health situation further deteriorated during the war between RPF and the government forces. The events of 1994, culminating in the genocide, were the death knell for the country. The effects of war on public health are well documented (see, for example, the legacy of the conflict in Uganda discussed below). The Rwandan case is exceptional in three ways: 1) Rwanda was already a very poor country. Only 5% of the population had access to clean water, and the country's health and education systems were weak and not resilient to major shocks; 2) Parties to the conflict, particularly the forces associated with the Habyarimana government, targeted civilians such that the conflict led to the deaths of between 800,000 and 1 million people, making 1994 the deadliest single year in recent history; and finally 3) the conflict destroyed not only the capacity of the government to respond to "epidemics of infectious disease - including AIDS, malaria, tuberculosis, and waterborne infections - but spreading some of these infections became a strategy of war for some of the parties to the conflict" (Farmer et al., 2013). This suggests that the scale and intensity of the conflict in Rwanda is an important factor to consider while analysing the legacy of the conflict for health. The following sections elaborate further on these critical aspects of the legacy of the conflict in Rwanda.

Rwanda's health system suffered a great deal due to the conflict in the early 1990s. Health facilities were destroyed in many parts of the country; health workers were specifically targeted and many fled for their lives. Some of those who stayed behind were complicit in the genocide against the Tutsi, eroding public trust in medical professionals

(Binagwaho et al., 2014). Medical equipment and drugs disappeared, limiting the ability of the health system to respond to the health needs of a nation in a war (Binagwaho et al., 2014). All of this meant that fewer than 25% of Rwandan children were vaccinated against preventable diseases such as measles and polio, and infection control programs such as the tuberculosis control program collapsed completely. Rwanda's mortality rate for children under 5 was the highest in the world in 1994 (Binagwaho et al., 2014). Rwanda's life expectancy, which was already low on the eve of independence (43) plummeted to 29 by 1994 (World Bank, 2018).

The legacy of the conflict for women is particularly poignant as gender-based violence became an instrument of war. It is estimated that about 250,000 women and girls were subjected to rape. Some have argued that tens of thousands of these rape victims were infected with HIV/AIDS (Cohen et al., 2005). Gender-based violence during the war was deployed as a strategy to inflict maximum pain and suffering on Tutsi women and girls. Cohen and colleagues (2005) note that:

In Rwanda, the Hutu extremists fostered their political goals through mass sexual violence. They sexually assaulted young girls and women because of their gender in a systematic attempt to exterminate the Tutsis and their supporters, and they used the weapon of HIV. According to one source, "Eyewitnesses recounted later that marauders carrying the virus described their intentions to their victims: they were going to rape and infect them as an ultimate punishment that would guarantee long-suffering and tormented deaths." (p. 613)

The Rwandese that fled the war could not escape death and disease in the refugee camps on the border with Zaire, Burundi and Uganda. On Rwanda's western border, for example, a cholera epidemic, which was a direct result of the violence – in mid-1994 killed about 12,000 people, one of the worst epidemics by far in recent human history (Siddique et al., 1995).

The task of rebuilding the health system was therefore more daunting for Rwanda than it was for Uganda, which not only had a better functioning health system before the conflict in the 1970s and early 1980s, but also had a ten year head start on Rwanda in which

to rebuild its health system before Rwanda was stable enough to embark on similar efforts. We will come back to how Rwanda went about building its health systems at the end of this chapter.

The RPF government: A Critical Juncture in the History of Rwanda?

The RPF rebels took over a country beset by tragedy in the truest meaning of the word. The political arena was so polarized and the political elite so divided along ethnic lines that the inability to share power defined the Rwandan state regardless of who was in control. The desire of individual sectors to monopolize power deprived the Rwandan state of a negotiated political settlement that would serve the country as a base for stability. The new government inherited a humanitarian catastrophe of epic proportions. Two million people fled to neighboring countries, while hundreds of thousands became internally displaced, a euphemism humanitarian organizations use for being destitute in one's own country. The war also deepened economic decay as resources were mobilized not to deliver essential services such as healthcare, clean water and basic literacy, but to destroying the nation. In the next few sections I provide an overview of the RPF government's performance in addressing the political economy challenges.

The politics of stability and ethnic harmony in Rwanda: Basis for state performance?

Following the takeover of government by the RPF, a major task for the government became addressing the double burden of dealing with the past - i.e. delivering justice to genocide victims and creating harmony between the Hutus and Tutsis - and building the future – i.e. defining the rules of the political game which would be the basis for rebuilding state institutions. The twin tasks are not mutually exclusive. With regard to the former, the government responded on two major levels: ideological and practical. Ideologically, the RPF government's policy has been to de-ethnicize the country by banning the classification of

Rwandans along ethnic lines: in the eyes of the RPF government there are no Hutu or Tutsi, only Rwandese. Ethnicity is not a basis for the distribution of public goods, or the holding of public office. Inclusivity is not measured by the participation in or the representation of disparate ethnic groups in the country's political economy. This ideology is captured in article 9 of the Constitution which promises the "eradication of ethnic, regional or other divisions and promotion of national unity" (GoR, 2003). Ethnicity is only invoked when memorializing the "genocide against the Tutsi", either during the second week of April, a week of official mourning during which the government erects massive billboards across the country, or in the Genocide Museum, where staff guide visitors through how the genocide against the Tutsi unfolded, and discuss its devastating impacts.

On a practical level, the government set up a traditional justice-based tribunal known as *gacaca* to try people who are alleged to have committed "lesser genocide" (Economic Intelligence Unit [EIU], 2008). About one million people were tried at *gacaca* courts between the late 1990s and 2008. The special courts were closed in 2012 (EIU, 2008). While the justice delivered through the *gacaca* courts is seen as swift and home grown, it has at times led to the killing of 'genocide survivors and *gacaca* judges', inevitably triggering 'reprisals' (EIU, 2008). Although there has not been major ethnicity-based violence in Rwanda recently, social cohesion is still undermined by the bitter history, lack of intermarriage, and ongoing political domination by the Tutsi – a point we will discuss presently.

Political domination by the Tutsi is enabled by their full control over key political institutions including the ruling party, the RPF. As noted by the EIU (2008), the RPF "is the dominant political party, controlling the presidency and the armed forces, and is the largest single party in the National Assembly and government since 1994. The party is led by predominantly English-speaking Tutsi former exiles in Uganda, with a technocratic and broadly liberal economic focus, combined with a militaristic approach to foreign policy"

(p.6). From afar, it is difficult to see the domination of the RPF given that they do not have a majority in the National Assembly, but like many ruling parties, such as Ethiopia's Ethiopian People's Revolutionary Democratic Front, other parties in the Parliament are largely the ruling party's creation, making the country essentially a one-party state (Longman, 2011). The RPF's domination gave rise to armed opposition, including the Forces Démocratiques de Libération du Rwanda (FDLR), a largely Hutu rebel group that operated from Eastern Congo. The FDLR has been accused of human rights violations, including participation in the genocide in Rwanda (BBC, 2014). The few influential Hutu figures in the RPF have been purged or systematically marginalized (Longman, 2001). These include Pasteur Bizimungu, the first president of the post-genocide government, who was later arrested (Longman, 2001). Key Tutsi political and military figures, including the former chief of staff, Kayumba Nyamwasa, have also been purged from the party, or left on their own to join the opposition in exile (Nyamwasa et al., 2010).

Since 2003, when Rwanda's transitional period ended with the adoption of the new constitution that separates the three branches of government (Executive, Legislature, and Judiciary), and places executive power with the President who is elected for a seven year term, Paul Kagame has won one presidential election after another. As happened in Uganda, the Rwandan constitution was amended in 2015 to abolish term limits, allowing Kagame to be re-elected in August 2017 for a third seven-year term in office, reaffirming the continuation of RPF dominance under Kagame's leadership.

President Kagame's role in the post-genocide Rwandan state and society has attracted vast scholarship, both negative and positive. On the one hand, human rights organizations and democratization activists are critical of Kagame for closing off political space and violating human rights (Strauss & Waldorf, 2011). On the other hand, Kagame is seen as an effective state manager by many, including President Bill Clinton and Prime Minister Tony

Blair, who praise him for rebuilding a vibrant nation and attracting investment

(Uwizeyimana, 2016). Kinzer (2008) notes:

Two things about President Kagame are evident to all who consider his situation honestly. First, he has accomplished something truly remarkable. The contrast between where Rwanda is today and where most people would have guessed it would be today in the wake of the 1994 genocide is astonishing. Second, Kagame is the man of the hour in modern Africa. The eyes of all who hope for a better Africa are upon him. (cited in Longman, 2011, p. 26)

The commitment of its political leadership and the effectiveness of its public sector (see below) have enabled Rwanda to rebuild its economy. Despite the 1994 genocide, which drove 78 % of the population below the poverty line and destroyed the country's economic institutions, Rwanda has achieved remarkable economic development and is hailed as a success story in sub-Saharan Africa (Logie, Rowson & Ndagije, 2008). By 1998, Rwanda's GDP had returned to the pre-genocide figure of \$1.9 billion, driven mainly by agricultural production, and to a lesser extent by services and manufacturing (GoR, 2015). In 2000, the government introduced its key development strategies, Vision 2020, and the Interim Poverty Reduction Strategy Paper (I-PRSP). A major policy objective of Vision 2020 was "to transform Rwanda's economy into a middle income country (per capita income of about 900 USD per year, from 290 USD today), [which would require] an annual growth rate of at least 7% [between 2000 and 2020]" (GoR, 2000, p. 6). Rwanda is unlikely to become a middle income country in the next two years. However, Rwanda's GDP has grown between 6 and 8 % annually since 2003, with inflation in the single digits for the most part (GoR, 2015). By 2013, due to growth in the transportation, communications, finance and real estate sectors, Rwanda's service sector represented 45.1% of the country's GDP. Agriculture, though also strengthened, accounted for only 33.3% of the country's GDP (GoR, 2015). Real GDP per capita, in Purchasing Power Parity terms, increased from \$559 in 1990 to \$1698 in 2014, slightly lower than Uganda for the same period (see above). The population living below the

poverty line has been slashed from 57% in 2006 to 39% in 2015 (Central Intelligence Agency, 2017).

Although, like Uganda, Rwanda still depends heavily on aid, it is steadily expanding its revenue base and shrinking the externally financed portion of its national budget. In 2009, Rwanda mobilized 52% of the national budget from domestic sources (tax and non-tax revenue as well as domestic borrowing). By 2013, the government mobilized an estimated RWF 994.9 billion (about \$1.16 billion) in domestic revenue, which accounted for 60.2% of the national budget for that year with external finances accounting for only 39.8% (GoR, 2009). Rwanda's ability to collect tax has been growing over the years, increasing six-fold in 2009 and accounting for 13% of the GDP for that year (GoR, 2015). Rwanda's Revenue Authority (RRA) is considered exemplary in the East Africa region. In 2015/2016 the RRA collected RWF 1,001.3 billion or approximately \$1.168 billion, achieving 104.3% of its target for that year (GoR, 2016).

Improving state performance: Decentralization and public sector reforms to improve service delivery

Rwanda's government adopted a top-down National Decentralization policy in 2000 and revised it in 2011 to further decentralize service delivery and improve governance (RMLOG, 2013). The decentralization strategy was to be implemented in three phases. In the first phase (2000-2005), the government undertook legal and institutional reforms to create local administrative structures and systems. The Decentralization Management Unit (DMU) was established within the Ministry of Local Government and mandated to oversee the implementation of decentralization in the country. A Common Development Fund (CDF) was set up; and the Rwandese Association of Local Government Authorities (RALGA) was created to facilitate dialogue between local governments, and promote development and good governance across districts (RMLOG, 2013). In this phase, provincial governments, district

councils, and community development committees (CDC's), sectors and cells were created. Local elections were held (questions about how free and fair they were notwithstanding) to ensure the decentralization process was managed by elected governments at the local level. The first phase also facilitated the transfer of resources and the delegation of authority to lower level governments, addressing the challenge of reorienting people from the centralized legacy of past regimes. However, by the end of the first phase, the increased fiscal burden of the new structures was identified as an obstacle to improving service delivery. Hence, in the second phase, the number of provinces was reduced from 12 to 5 and local governments were restructured to form 30 districts, down from 103.

Between 2006 and 2010 (the second phase) the government also enhanced the capacity of local administrations, created accountability and service delivery mechanisms, and delegated all authority to the local level. In this phase, local governments became well versed in planning and generating processes to guide district development initiatives and measure their progress. The goals of the third phase (2011-2015) of decentralization were to consolidate the gains made in the first and second phases; improve coordination between development actors at the local level through instruments like the Joint Action Development Forums (JADFs); and scale up economic development (RMLOG, 2013).

From 2015 to date, the Rwandan government continues to deepen decentralization with growing emphasis on public participation in planning and priority setting, effective service delivery by local governments, and accountability mechanisms that link the central and local governments. To enhance accountability, for example, the Rwanda Governance Board undertakes surveys to rate public satisfaction with services across the country based on predefined social, economic, and political indicators, while districts have performance contracts with the central government against which performance is measured.

In addition to administrative decentralization, financial decentralization has been significant in Rwanda. The transfer of funds from the central government to district governments increased from 47.9 billion Rwfs (approximately US\$55 million) in 2006 to 179 billion Rwfs (approximately US\$206 million) in 2012, approximately 33% of domestic revenue (RMOLG, 2013). The share of the budget raised by the districts themselves is about 19 %, but the central government continues to position and equip districts to expand their revenue base (RMOLG, 2013).

The politics of decentralization in Rwanda has attracted scholarly debate. On the one hand, decentralization allows local governments to plan and budget, to set their own priorities, manage their own finances, and hire their own staff to implement plans. Local leaders are elected by their neighbours, and services are delivered locally, within the districts. The central government retains a strong oversight role (e.g. the performance contracts between the presidency and mayors) which could (as it is in Uganda) be used to maintain patronage networks (Chemouni, 2016). Ansoms (2009) argues that although its oversight role is an authoritarian way of controlling local governments, Rwanda's central government has been able to discipline local governments, and keep them focused on delivering on their mandates. The downsizing of local government structures also suggests that (again, unlike Uganda) developmental outcomes are privileged over expanding state structures to maintain patronage networks at the local level (Chemouni, 2016).

Similarly, the government undertook public sector reforms to improve service delivery. However, because much of its attention went into writing the constitution, responding to the humanitarian catastrophe, and repatriating refugees from neighboring countries following the genocide, the emergence of the central bureaucracy between 1994 and 1997 was haphazard. Every Ministry "hired at will", increasing the size of the civil service from 25, 389 in 1994 to 40,622 by 1997 without consideration for qualifications

(Chemouni, 2016). The public sector reforms in 1998, therefore, focused on defining the division of labour and the functions of the various institutions in the public sector (Wyatt et al., 2000). A human resource audit was also undertaken, leading to the retrenchment of civil servants and the removal of 12, 000 ghost workers from the government's payroll (Wyatt et al., 2000). These reforms were not adequately explained by the government. Civil servants and the general public did not understand or "buy into" the policy objectives, such that the blanket retrenchment reduced the size of the civil service but not effect qualitative improvements in public sector performance (Wyatt et al., 2000).

Despite these initial hiccups, the government continued public sector reforms into the early and mid- 2000s. These were undertaken in a more comprehensive manner, grounded in institutional frameworks and policy guidelines such as the National Decentralisation Policy, the Policy Framework for Rwanda's Civil Service Reform, and Reconfiguration and the Transformation of Rwandan Public Administration (Karega, 2006). During this period, focus was placed on aligning the public sector reforms with the attainment of Rwanda's Vision 2020, the country's development agenda, and on building "a skilled workforce and a strong public administration which promotes ethics, values, transparency, equity and results" (Karega, 2006 p. nd). Requisite public institutions, including the Auditor General's Office, the Office of the Ombudsman, the National Tender Board (NTB) and the Rwandan National Examinations Council (RNEC), were created to translate reforms related to performance and transparency into realities. It was also during this period that the Public Service Commission (PSC) was established to oversee the development of a competent public sector. Its initial mandate was to manage the recruitment process in the public sector. This was revised in 2010 at which time the PSC became responsible for ensuring that public sector institutions "comply with laws, regulations and decisions relating to the management of public service employees" (GoR, 2012, p. 9). Overall, the reforms led to "the reduction in the layers of

bureaucratic decision-making in government; decentralisation of power; and increased competency of the workforce. In particular, there [was] a rise in the number of university degree holders from 6.4% in 1998 to 79% in 2005” (Karega, 2006 p. nd). Rwanda’s public sector reforms continued through the 2010s, improving public sector performance by focusing on five “functional” areas: “government coordination; public finance management (focusing on budgeting and public procurement); civil service management; external audit; and anti-corruption policies” (Chemouni, 2017, p. 2).

Improvements in these five areas have been considerable. The institutions mandated to combat corruption, for example, the Rwanda Public Procurement Authority, the Office of the Ombudsman, the Rwanda National Police, the National Prosecutor General Authority, the Auditor General, and the Rwanda Revenue Authority, have been effective such that, “according to most surveys corruption is quite uncommon in Rwanda's public service at any level, and corruption with impunity is largely absent” (Booth & Golooba-Mutebi, 2012, p. 392). Transparency International’s Corruption 2017 Index ranks Rwanda as the 48th least corrupt country out of 180 countries (Transparency International, 2017).

The government’s low tolerance for corruption manifests itself in crackdowns on corrupt government officials. As one observer noted: ‘hardly a week goes by’ without a minister, member of parliament or civil servant at one level or another being sent to jail for corruption or the embezzlement of public resources. Some of the most notable officials imprisoned on corruption charges include the Finance Director at the presidency, Janvier Murenzi; a senior official at the Ministry of infrastructure, Vincent Gatwabuyege; a junior minister in charge of water, Munyanganizi Bikoro; and the junior Education Minister, Theoneste Mutsindashyaka (Bachorz, 2009). Some of these officials, particularly the finance director of the presidency, were close to the president but could not escape law enforcement bodies because, unlike Uganda, the public sector is “not systematically used for patronage”

(Chemouni, 2016). Rather, Rwanda's bureaucracy is "goal oriented" and enables the government to achieve its stated developmental objectives as codified in various national and sectoral policies (Chemouni, 2016).

Rebuilding Rwanda's health care system

Public health interventions in Rwanda, including malaria control, are delivered by public, private, faith-based or NGO providers through a decentralized health system consisting of community health workers (CHWs), health posts, health centres, and district and referral hospitals (PMI, 2015). Public health facilities (481 health centres and 37 district hospitals) make up about 65% of the total number of health facilities, while private health facilities (303 facilities) make up a further 33% of the total (PMI, 2015). The rest are managed by communities and/or parastatal organizations. The government's health policy stipulates that each district should have a minimum of one hospital, and each sector (sectors are sub-district level administrative structure- districts in Rwanda are divided into 416 sectors) should have a minimum of one health centre (HC), while at least one health centre is required for each cell (cells are sub-sector level administrative structure- Sectors in Rwanda divided into 2148 cells). The sectors are responsible for delivering — through health centres — primary health care services, community health promotion and the treatment of diseases that can be appropriately managed at the primary care level (eg. diarrhea, respiratory tract infections, malaria, and normal births). These health centres coordinate a network of 45,000 Community Health Workers (CHWs), mostly volunteers, who have been critical to Rwanda's malaria control policies.

Figure 8: Rwanda Healthcare Delivery Structure

Source: PMI. 2016

The delivery of health services by these facilities has contributed to improved access to health care over the years. For example, the number of people who sought medical care rose from 31% in 2005 to 40% in 2010, while the utilization of primary care increased from 0.81 in 2009 to 1.1 visits per inhabitant in 2014 (RMOH, 2015).

The overall quality of care has also been improving since early 2000, although challenges remain. In the area of TB control, for example, the quality of suspected clinical TB case management on a facility-specific basis needs to be improved (RBC, 2013). In the area of HIV control, a report by the Rwanda Biomedical Centre (RBC) in 2013 indicated that nine district hospitals and 70 health centers were identified for “corrective action” as the quality of their services needed to be improved (RBC, 2013). Various divisions of the RBC undertake regular mentorship and supervision visits to take stock of the quality of service and to take or recommend corrective actions. District hospitals also undergo regular supervision

and inspection to monitor and improve quality of services at the health centres in their districts. In instances where Rwanda lacks the capacity to undertake quality control, it relies on neighboring countries such as Uganda. For example, the Uganda Virus Research Institute serves as a referral laboratory and a center of quality control for vaccine preventable diseases for Rwanda and other neighboring countries (RBC, 2013).

Rwanda's health care system is designed to address the specific public health challenges the country is facing. It has a bias towards communicable diseases, although there is a growing burden of cardiovascular diseases in Rwanda. The following table shows the top ten causes of under 5 years mortality in health facilities in 2014.

Table 5: Top Ten Causes of Under 5 Years Mortality in Health Facilities, 2014

Rank	Data	Total	% of total
1	Neonatal illnesses	2595	70%
2	Pneumopathies	319	9%
3	Cardo-vascular diseases	237	6%
4	Malaria Death	180	5%
5	Physical trauma, bone and joint diseases	105	3%
6	Diarrhea	104	3%
7	Digestive tract diseases	46	1%
8	Cancer and tumors	31	1%
9	Renal and urinary track diseases	23	1%
10	HIV/AIDS Opportunistic	20	1%
11	Other disease	62	2%
12	Grand Total	3722	100%

Source: RMOH, 2014

As the table 5 shows, malaria remains a major burden, responsible for 5% of child deaths in the country (RMOH, 2014).

Health financing

Rwanda relies heavily on donors to fund its health care. It is estimated that over 61% of health expenditure comes from external sources (RMOH, 2015). External support boosted health expenditure per capita from \$10 in the late 1990s to \$40 in 2010 (RMOH, 2015).

Reliance on donor funding to address HIV/AIDS, malaria and TB is particularly heavy. External sources provide 85% of the total expenditure (see details on malaria funding in chapter five). The US government and Global Fund are the two main sources of funding for Rwanda's health expenditure.

Despite heavy reliance on external funding, the government's budgetary commitment has improved over the years. Rwanda's health budget, for example, increased from 8.2% of the total budget in 2005 to 15.5% in 2013, surpassing the Abuja commitment (RMOH, 2015). In 2015, Rwanda updated its health financing sustainability plan, recognizing the need to finance its own health care system and wean itself from externally mobilized resources. One health financing innovation the government has implemented is *mutuelles*, Community-Based Health Insurance (CBHI).

According to the government, *Mutuelles* is a financing mechanism aimed at achieving universal health coverage and responding to health priorities including malaria (RMOH, 2015). It is essentially a mechanism for pooling the costs of healthcare as a risk shared between districts, the central government and donors. It is estimated that 90% of Rwandese now have health insurance, giving them access to basic health coverage, while an additional 7% are covered through civil service and military insurance programs (Farmer et al., 2013). Unlike Uganda's laissez-faire approach to expanding community health insurance, which has not succeeded in increasing enrolment so far, the expansion of *mutuelles* coverage is a political priority for both the central and local governments in Rwanda. Diop and colleagues (2007) note that

the political will and leadership in Rwanda has remained strong in the promotion of *mutuelles*.... as political pressures to scale-up *mutuelles* increased beginning in 2002, Rwanda was able to mobilize a multilevel leadership, starting with the Presidency, the Ministry of Health, and the Ministry of Local Affairs, provinces, districts, sectors and cells, to expand *mutuelle* coverage nationwide in a few years. (p.20)

With improved coverage through *mutuelles* there has also been a decline in household out-of-pocket spending on health from 40% in 1997 to 21% in 2006 (World Bank, 2009 cited in Saidat, 2013).

Health workforce

The remarkable improvements in Rwanda's health care system are certainly not due to a large health work force. Uganda has 1.8 health workers per 1000 population to Rwanda's meager 0.9 health professionals per 1000 population (USAID & Makerere University School of Public Health, 2010; Binagwaho et al., 2013). In fact, Rwanda's human resource shortage is so severe that it has been labelled a crisis country (Binagwaho et al., 2013). Comparatively, "Rwanda faces one of the greatest shortages of human resources for health in the world". Its provider to public ratio is significantly below the 2.3 providers per 1000 population recommended by the WHO (Farmer et al., 2013, p.2).

Despite the severe shortage of health personnel which constrains the responsiveness of the system and its ability to provide "specialized care", Rwanda's determination to provide basic health services through nurses and community health workers has led to the improved control of infectious diseases such as malaria (Binagwaho et al., 2013). By "transferring agency for many clinical decisions and activities to nurses and community health workers", Rwanda has become a pioneer in achieving more with less (Binagwaho et al., 2013). One of the strategies the Rwandan government devised to enable this achievement is Performance-based Financing (PBF), through which health professionals and health facilities are financially rewarded for delivering quality services to people based on a predefined set of indicators and targets (RMOH, 2013).

Rwanda also formulated a National Human Resources for Health Policy in 2012 (updated in 2014) which created professional health cadres in order to achieve international health standards (RMOH, 2013). The University of Rwanda Medical School, the only public

medical school in the country, has increased its enrolment from 15 students in the pre-genocide period to 891 medical students in 2016 (RMO, 2013; Binagwaho et al., 2013; Rulisa, n.d). Another initiative launched in 2012 boosted the capacity of the medical education system through a twinning program that recruited faculty members from 23 United States medical schools in the fields of nursing, midwifery, medicine, dentistry, health management and public health (Ndenga et al., 2016). The distribution of medical staff is a problem here as it is everywhere. Although 80% of doctors are stationed at district hospitals which serve the rural population, most of the specialists remain in and around Kigali, creating a barrier to access for those in need of specialized care in areas outside the capital city (RMOH, 2013).

Health status in Rwanda: achieving more with less

Following the genocide, which destroyed Rwanda's already weak health system, the country had to rebuild its health care infrastructure while simultaneously delivering needed health services (Farmer et al, 2013). This pressure and the determination to achieve their goals despite their limited capacity has resulted in considerable progress in improving Rwanda's health status. Life expectancy reached 65 years by 2012, up from 48 years in 1990 (Binagwaho et al., 2013). Rwanda registered a 70.4 % decrease in the deaths of children under 5 between 2000 and 2011, an improvement attributed to a host of factors including an increase in the number of women delivering in healthcare facilities, and increasing enrolment in the *mutuelles* (Farmer e. al, 2013). Similarly, maternal mortality decreased from 1,300 per 100,000 live births in 1990, to 290 per 100,000 live births in 2012 (WHO, n.d). The fight against TB has also resulted in an 81% reduction in mortality, from 37 deaths per 100,000 in 1990, to 6.9 deaths per 100,000 in 2013 (RBC, n.d). HIV testing in Rwanda has increased and 80% of those who tested positive have been linked to care (Bendavid et al., 2016). The

prevalence of HIV/AIDS in the urban population decreased from 17% in 1986, to 3.0% in 2011 and has remained stable (Vogel, 2011).

The reduction of HIV prevalence has been driven, to a large degree, by the political commitment of Rwanda's leaders who saw themselves as an integral ingredient in the fight against the disease. As key note speaker at an AIDS conference in 2001, Paul Kagame noted that "political will" would be essential to developing a vaccine for AIDS (Vastag, 2001). Ten years later, at a UN meeting on AIDS, the president observed, "It is time to galvanize Member States to commit to a transformative agenda that overcomes remaining barriers to an effective, equitable and sustainable response to HIV and AIDS", restating the link between effective action on AIDS control and political commitment (Kagame, 2011, p.1).

Conclusions

This chapter has analyzed the political economy of the two countries we are comparing, examining how state and society have interacted in different historical periods in order to understand how power is contested and distributed in each of the countries. The first part of this chapter presented an overview of each country's history and traced the evolution of the state and its institutions in Rwanda and then Uganda. This tracing equipped us to examine the historical roots of the genocide in Rwanda, and the civil wars in Uganda, as well as the on-going implications of those conflicts for state-society relations and state performance particularly in relation to achieving health policy objectives. Stated simply, such analysis provides the foundation for understanding the links between the present and the past in the context of assessing state effectiveness. Understanding this linkage has given us insights into the current regimes in both countries; how they are governed and how they have addressed issues that hindered state performance in the past (e.g. how the two states ensure

political stability and ethnic harmony; and what measures and reforms each state undertook to address ineffectiveness in its bureaucracy).

Two major conclusions can be drawn from this historical and institutional analysis. First, political stability is a vital prerequisite for state effectiveness. As the historical review above shows, Uganda was very effective in achieving developmental and health policy objectives in periods when political contestation did not turn into political violence (e.g. during Abote's first regime). Similarly, in Rwanda, state effectiveness fluctuated depending on political stability and ethnic harmony. These findings point to the importance of a negotiated political settlement that is accepted by key societal actors underpinning state formation. Stability is essential for a state to remain effective in achieving its stated developmental objectives.

Second, the analysis clearly shows that while both governments brought political stability to their respective states and improved the economies of their countries, there are significant differences in governance styles and state effectiveness. In Uganda, patronage-based politics has become a common phenomenon (Chemouni, 2016), negatively affecting state effectiveness in achieving stated developmental objectives. The Rwandan state, on the other hand, has built a political system and state bureaucracy including a relatively well functioning health system that is goal oriented and has little tolerance for clientelism or corruption, improving the state's effectiveness in achieving its developmental and malaria control objectives.

Based on these findings, I argue that state capacity, though important, is not a major factor in explaining the difference in state effectiveness between Uganda and Rwanda. Political will is the determining factor. Uganda, though better equipped in terms of state capacity and human resources including the health workforce to achieve its policy goals, does not translate more capacity into better outcomes. This chapter shows that it is the presence of

political will at the highest level that drives the effectiveness of the health system and innovation (eg. *mutuelles*, the community insurance scheme) in Rwanda. The presence of political will at the highest level of government resulted in the significant reduction of the burden of HIV/AIDS in Uganda, political will that is missing in the work of reducing the burden of malaria in that country.

CHAPTER V

THE STRUCTURAL BASIS FOR COMBATTING MALARIA IN UGANDA AND RWANDA

The World Health Organization (WHO) spearheaded global efforts to tackle malaria in tropical Africa in the late 1990s (see Chapter Four). The 1993 Global Malaria Control Strategy specifically underlined that controlling malaria in malaria endemic countries would require establishing and strengthening national capabilities (WHO, 1993). The Global strategy asserted that states would be responsible for establishing national malaria control programs and “ensuring their effectiveness” in controlling the disease (WHO, 1993). As part of that work, WHO advocated establishing National Malaria Control Programmes across malaria endemic countries in Africa. The institutional design of individual programmes was left to each country. In Chapter Four we briefly discussed the health systems in Uganda and Rwanda. These systems form the structural basis for tackling public health problems in the two countries, including malaria. This chapter further explores each country’s capacity to implement malaria control policies. Analyzing the implementation of policy and programmes in the two countries will bring to light what has worked and what has not worked in the area of malaria control. We will focus particularly on each country’s national malaria control program to examine how it functions, and how malaria control services are provided and monitored. We will consider how effectively each government adopts the multi-sectoral approach to malaria control recognized as essential in both countries’ malaria control strategies, and describe the interactions between structures that provide malaria control services such as health facilities, community health workers, and political and administrative structures at the national, local and community levels.

In this chapter I will show that the superiority of Rwanda’s structures and institutions for malaria control (as compared to Uganda’s) stems from the fact that there is greater

involvement of politicians at all levels of government, from the presidency to the village level in malaria control, in Rwanda. Such involvement demonstrates the commitment on the part of political leaders to ensure the structures for malaria control deliver on their mandate and achieve stated malaria control policy objectives. The argument is that while Uganda's structures and institutions for malaria control have the capacity (sometimes stronger capacity than Rwanda, as will be discussed) that capacity is either not mobilized or not deployed largely because of lack of political will from the highest to the lowest levels of the executive. In contrast, the combination of local action, and central monitoring and accountability, which is spearheaded by the presidency, is instrumental in reducing the burden of malaria in Rwanda. In essence, in Uganda malaria control is left to the health care system, while in Rwanda malaria control is politicized in the sense that responsibility for controlling the disease rests with political leaders who deploy the capacity of and provide support to health care professionals.

This chapter is structured as follows: In the first section I compare and contrast the capacities of the national malaria control programs of the two countries. In this section, I show that Uganda faces relatively greater challenges than Rwanda, in mobilizing and deploying available capacities. In the second section, I look at the performances of the two countries, specifically their ability to adopt multi-sectoral approach to malaria control. In the third section, I discuss the role of politicians and administrative structures in malaria control. In the fourth I compare the performance of health facilities and community structures in controlling the disease. This section will show that the structures at the health facility and community levels are by and large similar in function and organization but different in performance. In the fifth section, I discuss supply chain management, focusing on the procurement, storage and distribution of anti-malaria drugs and supplies. The sixth section discusses the surveillance, monitoring and evaluation capacities of the two countries. The

ability to record, report and react to malarial outbreaks is vital for the effective implementation of malaria control activities. In the last section of this chapter I turn to particular interventions and compare the achievements and challenges in both countries.

Curbed capacity of the National Malaria Control Program in Uganda

Uganda's National Malaria Control Programme (NMCP) is a unit within the MOH's Disease Control Department responsible for the development and implementation of malaria control policies in Uganda. While the programme has developed a considerable number of policies that are key to combatting malaria, it faces challenges turning policy into practice (UMOH¹⁴ official, personal communication, July 15, 2016). In almost all government malaria control strategies and malaria program reviews, the NMCP is portrayed as lacking the capacity to adequately guide the implementation of malaria control activities in the country. For example, both the 2011 and 2014 malaria program reviews, and an assessment conducted in 2015 rating the capacity of the NMCP, noted that the NMCP lacks capacity and observed that it ranks low on the organizational chart (UMOH, 2011, UMOH, 2014).

There are 8 senior officials of varying rank between the program manager and the Minister in the MOH's organizational structure. This is significant in a culture where hierarchy in public institutions is considered important and opportunities to influence the leadership can be limited by rank (e.g. if the malaria control program manager is not invited to participate in high level policy discussions). In terms of numbers, the programme currently has fewer than 12 staff, constraining its ability to enforce policies across the country (UMOH official, personal communication, July 15, 2016). According to a senior UMOH official, the limited number of staff is the problem, not their skill set (Senior UMOH official, personal communication, July 15, 2016). A country expert also pointed out that capacity itself should

¹⁴ Uganda Ministry of Health (UMOH)

not be considered a limiting factor, but the inability to mobilize capacity. Mobilizing capacity is an organizational, not a technical matter (Uganda country expert, personal communication, June 22, 2016). NMCP's inability to leverage academic institutions in the malaria policy network in order to boost its capacity is an example of its failure to improve its effectiveness. In 2006, for example, at President Museveni's suggestion, the Ministry of Health established the Uganda Malaria Research Centre (UMRC) with five strategic objectives: to set a national research agenda; to promote and carry out relevant research; to facilitate research training and capacity development; to build strong and viable internal and external systems; and to disseminate and promote the utilization of research findings. However, the Institute ceased to function within a few years for lack of commitment at the leadership level including the leadership of the Ministry of Health. Engagement with other well-established institutions such as Makerere University's School of Public Health is also poor. As Croke (2012) observes:

The [Makerere University] School of Public Health is a very credible institution and it produces very good reports and research, but the Ministry does not care about these reports. They don't even look at it. These people could go and talk to them, but they will probably literally go to sleep until it is all done, and they will just close the books and that's the end of the story. And so we don't have that relationship ... By contrast, I see that strong linkage also in Kenya. Kenya Medical Research Institute (KEMRI) is a very strong institution and ...there is also a much stronger link between KEMRI as a research institution and the Ministry's policies, just like the Ifakara one in Tanzania. But we don't have this relationship here in Uganda. (UMOH official, cited in Croke, 2012, p.451)

The NMCP has in the past sought support from external actors in the form of technical experts and top ups (allowances on top of salary) for NMCP officials. In 2000, the US government, through the CDC, seconded a technical expert to the NMCP (PMI, 2006). Technical support from other development partners and top ups for NMCP officials continued for over a decade and key external actors in malaria control including PMI, Global Fund, and DFID are considering providing technical experts to the program and top ups to

NMCP officials once again (Development partner, personal communication, July 22, 2016). While seconded technical experts and bonuses can boost capacity if they are managed well, this approach has, to a degree, undermined the performance of the NMCP in Uganda. In some instances, the bonuses paid to NMCP officials created salary distortions within the organization, with more senior officials being paid less than their more junior colleagues, leading to tension within the unit (UMOH official, personal communication, July 15, 2016). Imported technical support, as observed by Pond and colleagues (2013), is not always designed in a manner that ensures that knowledge and skills will transfer, such that the capacity gap persists following the departure of expatriate technical experts.

Finally, capacity at the district level is not utilized very well. Many district health officers in Uganda, unlike their counterparts in Rwanda, are medical doctors with enormous experience in public health. Uganda's districts (with the exception of new districts) have clinicians and public health professionals in charge of health information and vector control, and a designated person overseeing malaria control. Because the NMCP is so centralized, this capacity is not deployed to control malaria (UMOH official, personal communication, July 15, 2016). A UMOH official who was a district officer for nearly a decade noted that the NMCP does not engage districts in a manner that creates a shared sense of purpose (UMOH official, personal communication, July 15, 2016). During an epidemic response, for example, instead of delegating the task of planning and designing malaria control interventions such as IRS campaigns and net distribution to local level actors, the NMCP and its partners engaged local officials and district health officers simply to rubber stamp centrally planned interventions (Uganda district health officer, personal communication, July 20, 2016). The capacity of the NMCP might also have been negatively affected by discarding the regional malaria control structure with a designated focal-person to support malaria interventions in each district.

Building and borrowing capacities to control malaria in Rwanda

The National Malaria Control Programme (Programme National Intégré de Lutte Contre le Malaria), a division of the MOH's Rwanda Biomedical Centre, is responsible for overseeing the implementation of malaria control policies in Rwanda. The division has some 36 permanent and contractual staff. It was established in 1999 at the behest of the WHO during a period when malaria was the main killer of children under five in Rwanda (Bizimana, Twarabamenye, & Kienberger, 2015; MAL & OPD Division-RBC, 2014). Despite this fact, tackling malaria could not be a high priority for the government at the time, given that the country was in political transition and the main priority of the Rwanda Patriotic Front (RPF) was to consolidate its power (as discussed in Chapter Four). One of the key transitional tasks prioritized by the state was drafting a constitution. Rwanda's new Constitution was adopted in 2003. It introduced a national decentralization policy that would become instrumental in controlling malaria because it empowered community level structures, as will be discussed below. This is important in the discussion of differences in the malaria control outcomes of the two countries, and the effectiveness of their local initiatives.

It was not until 2005 that the government put forward a robust national malaria control strategic plan. The capacity of the NMCP to implement this plan, however, remained weak during the initial years of this period. In 2007, for example, the government was able to finance only six positions in the NMCP so its ability to conduct monitoring and evaluation was limited (PMI, 2007). Rwanda had the double burden of building the capacity of the NMCP and fighting malaria, although the two goals were not mutually exclusive. One of the challenges Rwanda faced in building an effective national and local malaria control programme during the mid- 2000s was that the country was going through a political transition. Responsibility for malaria control at various levels of administration was not yet clearly defined (former RMOH official, personal communication, September 14, 2013).

According to a former RMOH official, NMCP officials and staff had to build in-house capacity before they could fulfill their mandate of overseeing the implementation of malaria control interventions (former RMOH official, personal communication, September 14, 2013). One of the strategies used to build in-house capacity was frequent trips to Uganda to seek advice and support from the Uganda National Malaria Control programme (former RMOH official, personal communication, September 14, 2013). Uganda was the right choice for a mentor. Not only was it a neighbour, and the relationship between the two countries strong, but Uganda also had a sound knowledge base rooted in academic and malaria research institutions like Makerere University (former RMOH official, personal communication, September 14, 2013). Rwanda also sought out and depended upon the support of the Global Fund, PMI, Belgium Technical Cooperation and other development partners in the form of technical advice and financial support for the NMCP (PMI, 2007). The financial and technical support of development partners constitutes a major part of NMCP's capacity to oversee the implementation of malaria control interventions to this date.

Over the years, building its own capacity and making use of capacity borrowed from elsewhere, the NMCP has been largely effective in overseeing the implementation of Rwanda's malaria control programme (Development partner, personal communication, September 18, 2013). As a development partner noted, the very small size of the country helps Rwanda's NMCP officials to engage actors involved in malaria control in various provinces and districts (Development partner, personal communication, September 18, 2013). The development partner observed that success does not necessarily depend on the number of staff at the NMCP, but on how programme implementation is designed. Rwanda's implementation design is characterized by strong oversight at the national level and robust delivery at the local level. Additionally, turnover at the NMCP has been very minimal,

suggesting a highly motivated staff (former RMOH official, personal communication, September 14, 2013).

The multi-sectoral approach to malaria control in theory and action

Uganda

Like Rwanda, Uganda recognizes that a multi-sectoral strategy is important for combatting malaria. In the Uganda Malaria Control Strategy (2005-2010), for example, one of the key principles for combatting malaria reads “continue to build a strong RBM partnership involving all sectors and stakeholders including communities” (UMOH, 2005, p.7). Similarly, in the Uganda Malaria Reduction Strategic Plan (2014-2020), it is stated that “there is a growing recognition in the Roll Back Malaria (RBM) partnership that malaria prevention and control programs need to have a multi-sectoral dimension. The slow pace in reducing the malaria burden in Uganda and the renewed international call for multi-sectoral action necessitates reforms in Uganda’s efforts to reduce malaria” (UMOH, 2014, p.3). The government has also made attempts to institutionalize the multi-sectoral approach by forming committees and structures that enforce it. For example, the multi-sectoral monitoring committee on IRS and DDT, which comprises development partners and key government agencies such as the MOH/NMCP, Ministry of Agriculture, and National Environmental Management Agency (NEMA), has been in place since the mid-2000s.

However, Uganda has been largely ineffective in enforcing a multi-sectoral approach to combatting malaria. A senior official in the MOH noted “the multi-sector idea is still new and needs to be developed” (senior UMOH official, personal communication, May 15, 2016). The official acknowledged that the only other governmental agency the MOH works with closely is the Uganda National Meteorological Authority (UNMA); but the official argued that the Office of the Prime Minister should enforce the multi-sectoral approach since the PM has the mandate and power to ensure ministries work together to achieve a common objective

such as fighting malaria (senior UMOH official, personal communication, May 15, 2016).

In contrast to Rwanda, Uganda seems to lack the ability to enforce a multi-sectoral approach to addressing public health issues at a higher level. For example, Uganda's malaria control policies identify the Ministry of Education as a key ministry for combatting malaria. However, the decade long row between the Ministries of Education and Health over the control of medical tertiary institutions shows lack of cooperation between the two ministries: most of the nurse and midwives' training schools are owned and operated by faith-based institutions without inputs from the Ministry of Education which is responsible for creating the necessary health manpower for the nation; and Makerere University trains nurses, but the Ministry of Health does not integrate them into the workforce (UMOH, USAID, & Makerere University School of Public Health, 2010; Bugembe, 2009). This poor coordination is reflected in Uganda's malaria control efforts. As noted by Yeka et al. (2012) "while there are many different partners, working groups, and committees, the malaria community remains quite fragmented. There remains poor coordination of malaria partners and interventions, and engagement among groups is irregular" (p.192).

Similarly, the Ministry of Agriculture is identified as a key ministry for controlling malaria in Uganda, yet the working relationship with the MOH in relation to malaria control is insignificant. A MOH official observed that: "If the Ministry of Agriculture is building a valley or a pond [somewhere], they will not care whether or not they are creating a home for mosquitos" (UMOH official, personal communication, May 15, 2016). The official noted that the government places emphasis on environment mainstreaming (implications of the interventions for the environment), gender mainstreaming (taking a gender perspective into the design and implementation of interventions), and HIV/AIDS mainstreaming (the implications of the interventions for the multi-sectoral approach to addressing HIV/AIDS), but malaria is not factored in infrastructure development or agricultural intervention.

Rwanda

Rwanda recognized from the early 2000s that fighting malaria requires inter-sectoral collaboration. The first National Malaria Control Strategic Plan (2005-2010) proposed an inter-sectoral committee to serve as a steering committee for the strategic plan. The committee would include the Ministry of Health, NMCP, Centre for Treatment and Research on AIDS, Malaria, Tuberculosis, and other Epidemics, Rwanda Environment Management Authority, Ministry of Agriculture, Ministry of Finance and Economic Planning, and some development partners (PMI, 2007). These and other governmental entities, such as the Ministry of Gender and Family Promotion, have been involved in fighting malaria since the mid- 2000s. A government minister observed that the issue of health is not an issue for the Ministry of Health alone, and that for the health sector to succeed, cooperation and partnership between different government bodies is pivotal (Rwanda Minister, personal communication, July 27, 2016).

An RMOH official also noted that the Ministry of Agriculture coordinates with the MOH to ensure that agricultural practices do not increase the burden of malaria and to manage the use of insecticides (RMOH2 official, personal communication, July 4, 2016). Similarly, the Ministry of Education collaborates with the MOH to educate students and their parents about malaria control and distribute mosquito nets; and the Ministry of Infrastructure works with the MOH to ensure that buildings, bridges, ponds and dams do not become breeding grounds for mosquitos (RMOH2 official, personal communication, July 4, 2016). A local official also confirmed that the National Women's Council and the Ministry of Gender and Family Promotion collaborate in health education and malaria advocacy activities at the local level (Rwanda local government official, personal communication, July 26, 2016). Rwanda's security forces have also been very active in malaria control. They are not only involved in enforcing malaria control policies, but they also participate actively in the

distribution of treated nets, and the construction of health facilities (health centers and health posts). They organize advocacy activities, and provide free malaria treatment at military health facilities.¹⁵

The multi-sectoral approach to combatting malaria is facilitated, to a large degree, by a culture of inter-sectoral cooperation that has been institutionalized in Rwanda under the Presidency and the Office of the Prime Minister (OPM). The OPM, for example, hosts a Coordination Unit whose primary responsibility is to ensure that all government ministries work together to realize the state's development agenda (Iyer, 2012). The OPM uses not only cabinet meetings and sectoral meetings to ensure inter-sectoral cooperation, but also other fora such as the National Leadership Retreat to streamline coordination and strengthen collaboration between ministries. Explaining how the OPM utilizes these fora to consolidate a multi-sectoral approach to achieving the country's development agenda, the Minister of Cabinet Affairs, Protais Musoni, notes:

Now, the preparation and decision making is quite lively...the energy and camaraderie of discussing and coming back creates a shared feeling of purpose: a unitary government, a feeling that this is a government that works together. The latest retreats have completely eradicated "this is *my* area, *my* ministry." Now, it is "*ours*—this is *our* government." (cited in Iyer, 2012, p. 13)

However, the multi-sectoral approach does not always result in smooth collaboration, since every sector has its own mandates to fulfill. A recent increase in malaria cases in Rwanda, for example, has been blamed in part on rice cultivation in Rwanda's wetlands. It is difficult to call this a failure on the part of the Ministry of Agriculture to ensure agricultural practices are in line with malaria control strategies. As an NGO worker notes, demanding that rice cultivators strictly comply with malaria control protocols without destroying their sources of livelihood has been a challenge for Rwanda over the last few years partly because

¹⁵ The ministry of defense controls Horizon Construction, part of the state-supported Horizon Group investment companies, that is heavily involved in infrastructure development including health posts.

rice cultivation is fairly new and partly because interventions for tackling rice farming-induced mosquito breeding sites has not been widely implemented across the rice cultivation areas (Rwanda NGO worker, personal communication, July 26, 2016). To strengthen intersectional collaboration, particularly in the area of human and animal health and agriculture, the government adopted Rwanda One Health Strategic Plan in 2015. The overall aim of the plan is captured by the motto on the tile page, “no single individual, discipline, sector or ministry can pre-empt and solve complex health problems, but effective implementation would largely depend on how the One Health steering committee which comprises many government institutions, civil society, the University of Rwanda, and others, ensures programming in various sectors fully reflect the policy objectives of the plan” (RMOH, 2013).

Administrative structures and malaria control: to politicize or not to politicize?

Uganda

In contrast to Rwanda, malaria and its control seems to be left for the public health community, particularly for the MOH at the national level, and health institutions at the local level. At the national level, the program does not have major visibility. Unlike the NMCP manager in Rwanda, the Uganda NMCP manager is not a political appointee and does not have a direct channel of communication to the country’s top leadership. According to a UMOH official, the interaction between politicians, particularly the Presidency, the OPM, and the manager of the program is minimal (UMOH official, personal communication, July 15, 2016). The official noted that the NMCP or someone from the disease control department might sometimes accompany the Minister to the Parliament to answer questions related to malaria or to high level meetings but even at such meetings high level MOH officials speak to malaria control issues.

There are instances, however, where key politicians have taken an interest in putting

malaria control on the national agenda. For example, Maria Kiwanuka, who served as the Minister of Finance between 2011 and 2015, tried to raise the profile of malaria control in Uganda by advocating for more resources and more attention focused on combatting malaria (UMOF official1, personal communication, July 19, 2016). The Minister engaged both the MOH leadership and top politicians of the country to put their political weight behind malaria control efforts. She also created a task force dedicated to engaging multiple actors including corporations to improve malaria control interventions. According to the UMOH official, who was a member of the task force, the Minister challenged key corporations in Uganda to contribute to controlling malaria: The banks were challenged to fulfill their social responsibility; telecom companies were asked to draft and relay public education messages about malaria prevention and treatment; and beverage companies were required to help the government with logistics management (UMOF official1, personal communication, July 19, 2016). The Minister's efforts and the task force faded away after the Minister was replaced in 2015.

There are also instances where politicians have interfered in malaria control efforts in a manner that, as Pond and colleagues (2013) note, undermined the autonomy and capabilities of the NMCP to oversee control efforts. As a former UMOH official observed, politicians sometimes put pressure on NMCP officials on the selection of districts for net distribution, which should not be determined based on politics (former UMOH official, personal communication, August 28, 2013). Croke (2012) also found that political interference in the technical work of the NMCP had negative implications for the program including demoralizing the staff. Between 2010 and 2013, half of the NMCP employees left without replacement (Pond et al., 2013). One of the junior UMOH officials noted emotionally: "I believe the late Dr. Albert Peter Okui's sudden death at a malaria control workshop was partly caused by frustration with politicians and their lack of seriousness in

supporting malaria control efforts” (Junior UMOH official, personal communication, July 7, 2016). While it is difficult to take such a statement at face value, it nevertheless shows that the commitment of political leaders to combatting malaria and supporting health professionals is an important determinant of success. This commitment is limited or absent in Uganda.

At the local level, the district chairperson is responsible for the overall delivery of health services including malaria control to the population in his/her district. The districts and health sub-districts (HSDs), therefore, are supposed to play a key role in the delivery and management of health services at the local level through District Health Teams (DHT). DHTs are supervised and monitored by the District Health Officer, who represents the MOH at the district level and oversees the implementation of MOH policies, including malaria control policies. DHTs, in turn, are responsible for the supervision of Village Health Teams (VHTs). However, unlike Rwanda, theory does not play out in practice. In reality there is little clarity as to the role of different politicians involved in malaria control, nor are the working relationships and communication channels between politicians and the health facilities and village health teams that provide malaria control services are well understood. There is also resignation on the part of some of the district leadership that they cannot do much to enforce malaria control in districts as the health system lacks the capacity and motivation to deliver interventions. A district chairperson noted:

[health facilities] are just not having enough staff. And then there [is] laxity. They are not motivated. They are not giving that patriotic kind of... saying we must serve. Some of them have resentment, you know, they just don't care because of lack of supervision. Supervisors are not sometimes effective to ensure that others are on duty. There are cases where some are on duty at night and those who are on duty fail to respond. They sign in that they are on night duty when they are not serving anybody. Patients are left there in critical [conditions] and people are dying. (Uganda district chairperson, personal communication, July 19, 2016)

Local health professionals, however, suggested that politicians are not sufficiently involved in malaria control activities. They observed that local politicians do not put their

weight behind malaria control efforts as they often prioritize other activities that help them to stay in power or get elected. A health inspector in one of the districts noted that politicians and police commanders participate in the burials of people who die of malaria all the time yet fail to prioritize malaria control (Uganda district health inspector, personal communication, July 16, 2017).

Although Uganda's malaria control program is not as visible as Rwanda's, there are efforts at the national level to raise the profile of Uganda's NMCP. For example, the salary of the staff at the NMCP was increased in 2016, and there are ongoing discussions about upgrading the NMCP to a division or department level. A change of key actors at the national level might also bring more visibility to the program: the current Prime Minister was a former Minister of Health, and has vowed to use malaria control as a benchmark for the health sector's performance; Maria Kiwanuka, a former Minister of Finance has a keen interest in malaria control and is now a key advisor to the President; and the current NMCP's enthusiastic manager, was, himself a district health officer and served in the leadership of the association of District Health Officers. As members of Uganda's new leadership, these people could be assets for controlling the disease.

Rwanda

In many respects, malaria control in Rwanda is a political undertaking. First, at the national level, the National Malaria Control Program manager is a Cabinet appointee position. Putting a political appointee at the helm of the NMCP gives national political leaders a direct connection to and a channel of communication with the program management team. It is therefore a common practice in Rwanda that MPs and members of the executive summon the NMCP manager. And when the national political leadership feels the program manager is not performing well, they take action. The Cabinet dismissed the former NMCP manager in 2016 due to "gross misconduct," (as I will discuss in Chapter Seven).

Second, at the local level, the primary responsibility to control malaria lies with the mayor, unlike in Uganda where responsibility lies largely with the health system. This responsibility is captured in the *Imihigo* (performance contract) the mayors sign with the President of Rwanda. The mayor, through the vice-mayor for social affairs and the district director of health, works with the communities, health facilities and community health workers to ensure malaria control policies are implemented smoothly. A major aspect of the local political leader's involvement in malaria control is malaria prevention activities, particularly health education, and in ensuring district residents have Mutuelles de Santé/Community-Based Health Insurance. They lead BCC, IRS and ITN distributions campaigns, and malaria control planning processes. The vice mayor for Kirehe, for example, chaired the malaria outbreak response plan in July 2016.

According to a local official, the district political leaders have direct access to the Health Management Information System (HMIS) to monitor malaria trends on a weekly basis and assess whether their control contributions translate into a reduction of malaria morbidity and mortality rates (Rwanda local government official, personal communication, July 26, 2016). When the bureaucracy faces bottlenecks, they turn, in many instances, to the political leaders for solutions. For example, during the outbreak of malaria in Kirehe district in 2016, the community health workers and public health leaders agreed to compile the names of residents who refused to spray their houses and share the list with the mayor's office. The vice mayor took responsibility for engaging the residents in order to raise awareness and ensure compliance.

At the sector administrative level, the head of social affairs plays a leading role in malaria control. According to local officials, the head of social affairs, with the support of cell/village political and community leaders, ensures that malaria control objectives are achieved at the community level and that community level structures are in place for malaria

control interventions (Rwanda local government official, personal communication, July 26, 2016). The head of social affairs gets a copy of the CHW weekly, and monthly reports on malaria control trends for monitoring and follow up purposes. The role of local politicians is even more prominent during malaria outbreaks. For example, during the malaria outbreak in Eastern region districts in Rwanda in 2016, the sectoral, cell/village level politicians, with the support of community structures, helped the government and the partners involved in the IRS recruit, train and supervise spray operators, and other seasonal staff needed from villages affected by the outbreak (Rwanda development partner, personal communication, July 27, 2016). The development partner characterized the role of local politicians in malaria control as “key” (Rwanda development partner, personal communication, July 27, 2016).

While there is no one effective way to organize and define the role of politicians and administrative units in malaria control, it is evident that the politicization of malaria control in Rwanda at various levels has given the malaria control program a high visibility in the government which, on the one hand, helps it to receive the necessary level of attention in the national, and sub-national agenda, and, on the other hand, exposes the officials and officers involved in the malaria control agenda to continuous scrutiny and oversight by executive and legislative bodies at different levels. The politicization of the program has not, however, constrained the ability of the NMCP to deploy its technical capabilities in whatever manner the institution deems necessary. As a former RMOH official noted, the focus of the oversight role of the politicians is outcome and delivery oriented (former RMOH official, personal communication, September 14, 2013). According to a Community Health Worker, the head of social affairs of the sector supervises CHWs regularly and serves as the representative of the Ministry of Local Government in the efforts to control malaria but do not interfere in the technical work of the CHWs (community health worker, personal communication, July 26, 2016).

Combatting malaria from the bottom: Health facilities and community structures

Uganda

The malaria control implementation structures in Uganda are similar to those in Rwanda. At the facility level, hospitals and health centres of different levels provide malaria control services, but the lower the level of the health facility, the more basic the service they provide. For example, Health Centre IVs provide the overall leadership, quality assurance, and monitoring of lower level health centers. They also supply lower level facilities with drugs and medicine. Health Centre IIIs provide laboratory services for diagnosing malaria and serve as the referral facility for the sub-county, and Health Centre IIs provide basic malaria preventive and curative care, carry out community outreach and support, and supervise Village Health Teams (VHTs). The VHTs serve as front line volunteer community health workers and are responsible for educating the public on malaria prevention and treatment, and community case management of the most common childhood illnesses, including malaria, pneumonia, and diarrhea among children under five. They refer complicated malaria cases to Health Centre IIs.

In practice, however, delivery of malaria control services both at the health facility level and community level have been hampered by many factors. At the facility level, there is widespread absenteeism. No-one was in attendance at one of the Health Centers IIIs I visited, which had a team of twelve professional staff and one support person; a nurse had to be called after I arrived at the clinic. The issue of absenteeism has become a common and accepted phenomenon at Uganda's health facilities. A district chairperson noted "Recently I went to [the] hospital and I found one woman in a very critical condition, shivering almost at a point of death, but there were no health workers" (Uganda district chairperson, personal communication, July 19, 2016). The absenteeism persists even during malaria outbreaks in

Uganda. Various teams that visited health facilities during the 2016 malaria outbreak in Northern Uganda reported widespread absenteeism (UMOH official 2, personal communication, July 20, 2016). In one of the districts, health officials were not present in the district.

There is also a widespread lack of anti-malaria drugs at health facilities (UMOH official 2, personal communication, July 20, 2016). This has posed financial challenges to community members who cannot afford to buy drugs from private pharmacies. Given that supervision of the private pharmacies is limited, they overcharge malaria patients even during malaria outbreaks. The private pharmacies also sell people less medicine than the required dose for malaria treatment, potentially contributing to the emergence of drug resistance. A UMOH official observed that there is no robust system to engage the private sector on malaria control in the country (UMOH official 2, personal communication, July 20, 2016). The weak referral system has also constrained malaria control efforts in Uganda. One of the challenges is the transportation infrastructure. There are long distances between health facilities and the road networks are poor.

Uganda, like Rwanda, created community level structures in order to address these challenges at the health facility level. Uganda has policies and guidelines in place to test and treat people in their homes so that visits to health facilities and the burden of malaria are reduced simultaneously. To improve service delivery and improve community participation, Uganda adopted the Village Health Teams (VHTs) strategy in 2001. In 2009, Uganda adopted VHT guidelines, which stipulate their functions. According to the guidelines, VHTs should be selected by the communities they will serve, since communities best understand their own contexts (UMOH, 2009). The criteria for the selection is similar to Rwanda's, and include willingness to volunteer, trustworthiness, and past volunteer experience in the health sector (UMOH, 2009). Since the community health program was launched in 2001, over

179,000 VHTs have been trained (Mays et al., 2017). Compared to Rwanda, the level of education of VHTs is higher; 52% of Uganda's VHTs have a minimum of secondary level education (MOH, 2015). After receiving basic training, VHTs contribute to the prevention and treatment of malaria through iCCM. Similar to the role of CHWs in Rwanda, VHTs participate in BCC activities, in distribution of treated nets, in spraying of structures, in treating cases and referring severe malaria cases to health facilities for proper treatment. CHWs are supervised by health centres in their catchment area, and through focal persons at the district level.

Although VHTs have improved the population's access to malaria services, particularly through educating communities and referring cases to health facilities, VHTs are not systematically deployed: some implement fully the integrated Community Case Management (iCCM) program and are overworked; some have the skills but lack the treatment kits to undertake iCCM; some are not trained and only refer malaria cases to health centers; and others are permanently absent from their communities (Uganda nurse, personal communication, July 16, 2016). This is in line with the findings of a recent assessment conducted by the MOH on the status and performance of VHTs, which also found that the implementation of the VHT strategy varied from place to place (UMOH, 2015).

The linkage between the VHTs and health facilities is also not very strong. As noted by a local health professional, quarterly meetings between VHTs and Health Centers do not take place as planned (Uganda nurse, personal communication, July 16, 2016). Uganda's Ministry of Health attempted to establish that link by creating Health Unit Management Committees (HUMCs), and village health teams. However, Health Unit management committees and village health teams were not able to promote community participation in an effective manner. For example, a study by Rutebemberwa et al. (2009) found that the capacity of the health management units to promote community participation has been

limited to the extent that even their existence is questionable in many districts (cited in UMOH, USAID & Makerere University School of Public Health, 2010). A study by the MOH also found that the involvement and support of the government, particularly financial support to VHTs, has declined over the years (UMOH, 2015).

Finally, because volunteers are neither paid nor given enough incentives to cover basic expenses, VHTs prioritize other income generating activities to provide for their families so absenteeism and drop outs are common (VHT member, personal communication, July 16, 2016). The member of the health village team noted that the only incentive he got from the government was a bicycle he received over four years ago. The member of the VHT also noted that he and his colleagues are only involved in health education and referring community members to the health centre, which indicates that the iCCM program is not fully implemented across the country. This is in line with the findings of Bagonza and colleagues (2014) who found that only ‘one fifth’ of VHTs implemented the iCCM program in Uganda. Bagonza and colleagues (2014) also found that factors influencing the performance of VHTs managing malaria and other diseases under Integrated Community Case Management (iCCM) include gender differences, guidance and feedback from health facilities, as well as support from the community and availability anti-malaria drugs. The VHTs implement the iCCM in full in areas where there are development partners that provide training and malaria treatment kits and incentives the VHTs can live on (UMOH official 2, personal communication, July 20, 2016). For example, during the malaria outbreak in Northern Uganda, many NGOs utilized VHTs and at times created a workload beyond the capacity of VHTs.

Rwanda

Health facility level (referral hospitals, district hospitals health centers, health posts) and community level (community health) malaria prevention and treatment interventions

complement each other in Rwanda. Insecticide treated nets are provided primarily through antenatal care (ANC) and Expanded Immunization Programs (EPI) at the local level. Malaria cases, especially “referred” severe malaria cases, are treated at the health facility level. The health center, particularly, can be considered as the center of malaria control as it links the national strategies and interventions to local malaria control operations. Health centers serve as a training hub for community health workers which form the backbone of the human capital against malaria, as discussed below. They quantify, order, and distribute malaria drugs and commodities to health posts and CHWs once supply is received from the national government; they gather, compile and assure the quality of data that goes into the Health Management Information System; and they supervise and monitor CHWs.

Health facilities, however, are limited in number and Rwanda, as discussed in Chapter Three, has a severe shortage of human resources for health. Building up a qualified health workforce remains a long term objective, but, at the same time, the government has had to develop strategies to tackle the burden of infectious diseases with its existing capacities. In the words of the government, due to “the overwhelming expenditure constraints faced by the Government of Rwanda there are simply not enough resources to provide affordable health services offered by trained medical staff in all the districts of the country” (Government of Rwanda, n.d). As a malaria expert in Rwanda put it, there was general recognition that Rwanda did not have enough health centers or enough qualified health care workers and bridging the gap required creative thinking and ideas to mobilize capacity immediately (Rwanda expert 1, personal communication, July 5, 2016).

To address this, the government launched a community health program in 1995. Although the overall goal was to improve access to services by deploying community health workers, the strategy was not guided by any policy, nor was it based on particular frameworks, demonstrating an element of trial and error in the malaria control policy process

(RMOH, 2013). That said, it is clear from the performance of the CHWs (discussed below), and from the interviews I conducted in Rwanda, that the strategy was driven by a very committed political elite that has created an effective program.

Today there are about 45,000 CHWs who form the backbone of the human capital in fighting malaria. In each of the 14,873 villages, there are three CHWs; two of them (a man and a woman, *binômes*) are responsible for malaria control through the Integrated Community Case Management (iCCM) program. Elected by their communities based on criteria set by the MOH (ability to read and write; aged between 20-50 years; willing to volunteer; living in the local village; honest, reliable, and trusted by the community), these cadres receive basic training from the Ministry of Health and health centres on diagnosing and treating uncomplicated malaria in the community (i.e. the home-based management of malaria). Development partners are also involved in training. For example, CHWs in Kirehe were trained by the government and DPs as spray operators during the IRS campaign in 2016 (RMOH official 3, personal communication, July 26, 2016). CHWs refer severe malaria cases to health facilities for proper treatment. They participate in BCC activities like the distribution of treated nets, and the spraying of structures. As a CHW put it, CHWs are responsible for reducing malaria in their communities. CHWs also support the Health Management Information System (HMIS) in two ways: they submit paper-based monthly reports to the Health Centres through CHW coordinators, and they use Rapid SMS to report cases and call for more support from the closest health centre and ambulance services in case of medical emergencies that are beyond their expertise.

The CHWs are supervised by the CHW-in-charge at different levels. At the cell /village level, the more experienced CHWs supervise and coordinate the work of other CHWs. At the sector and health center levels, a person with a diploma or undergraduate degree in either a medical and non-medical field is the CHW in charge. The CHW in charge

at the hospital is in charge of the overall supervision and, with the help of the data manager at the hospital, compiles reports from all the in charge CHWs on a monthly basis. At the national level, the Community Health Desk of the MOH's RBC is responsible for the implementation of the community health strategy which guides CHW interventions and contributions to malaria control. CHWs collect malaria control drugs and commodities from the health centre (see the supply management section below) (Community health worker, personal communication, July 26, 2016).

CHWs are volunteers, but the government has created financial and non-financial incentives to motivate them. The financial incentive is based on the performance of CHWs which is measured by meeting specific outputs (eg. number of cases reported or treated). Seventy percent of the financial reward goes to community health worker cooperatives, and 30% directly to the CHW. Some CHWs do not understand how the incentive system works (Community health worker, personal communication, July 26, 2016). CHW cooperatives are involved in different sectors of the economy: some, for example, invest in livestock while others invest in farming (Community health worker, personal communication, July 26, 2016). The non-monitory incentive for CHWs is largely recognition by the communities and the government. The government provides CHWs with cell phones which they also use for uploading data, certificates of appreciation, and health insurance. Communities welcome them during house visits with meals and praise. A government minister argued that above all CHWs “get satisfaction from having done something for the community, satisfaction for being useful or a feeling of patriotism” (Rwanda Minister, personal communication, July 27, 2016).

The “sense of community” which is essential for the performance of CHWs and health professionals involved in malaria control has been bolstered through deliberate government policies and propaganda. The Rwandan government has institutionalized

informal traditional practices (home grown solutions) to facilitate collective action on societal problems including health problems. Although there are many homegrown solutions, including community conflict resolution and community courts, two traditional practices might have contributed to the effectiveness of CHWs in Rwanda: *Ubudehe* (collective action and mutual support) and *Umuganda* (community work).

In 2001, Rwanda's Ministry of Local Government, in collaboration with the Ministry of Finance and Economic Planning, started to promote the institutionalization of *Ubudehe*. In explaining the logical underpinnings of the *Ubudehe* practice, the joint report of the Ministries notes that, "Making changes on your own is very difficult. Many of the most important problems have to be tackled by people working together, they are about designing systems and institutions in communities to solve problems and regulate people's behaviour and access" (Government of Rwanda, 2001, para.8). Using *Ubudehe*, the government embarked on devising policies whose core objectives are "to build and consolidate volunteerism, community work and self-reliance based on cultural and other values of collective responsibility, personal worth and productive involvement" (Government of Rwanda, 2001, para. 8).

Today, each cell/village in Rwanda has an *Ubudehe* committee that organizes the community to contribute to poverty reduction and development. The government provides basic skills training for *Ubudehe* committee members on facilitating debates, discussions and decision-making to address community issues. By 2006, over 20,000 facilitators have been trained for districts and *Ubudehe* is considered to be "a policy designed to increase the level of institutional problem-solving capacity at the local level by citizens and local government" (Rwanda Ministry of Local Government, 2009, para. 4). *Ubudehe* activities range from supporting the poor with cows and milk, to constructing water pumps, collective farming or constructing health facilities.

Similarly, the government started promoting *Umuganda*, a tradition whereby people come together to achieve a common objective. The practice was officially adopted as policy in 2005 and then amended in 2009 through the Prime Minister's order, delineating the functions of the *Umuganda* steering and technical committees at the community, district, provincial and national levels. *Umuganda* activities range from cleaning streets to building houses and/or health facilities. The activities take place the last Saturday of every month. Participation is compulsory and failure to participate can result in fines, particularly for organizations and business entities in a given neighborhood (RPF expert, personal communication, July 20, 2016). While *Umuganda* is a key tool for collective action, it is also a tool for building trust and social cohesion. Thus, the deliberate policies of the government to institutionalize *Ubudehe* and *Umuganda*, among other home grown solutions, have helped the government to mobilize society behind the nation's development agenda and laid a foundation for the effective engagement of the community in controlling malaria and other infectious diseases. It is not surprising, therefore, that CHWs are often elected by communities at the *Umuganda* and *Ubudehe* gatherings.

That said, Rwanda has had challenges in using community health workers for meeting the public health needs of its society. Some of the challenges, by the government's own admission, are related to "insufficient resources to sustain routine community health activities including cooperatives, training, and refresher training, to reinforcing supply systems, to purchasing equipment, to upgrading infrastructures needed to deliver more health services to the community" (UMOH, 2013, p.2). Another problem is the low capacity of the CHWs, as some of them only have basic education (primary level as per the selection criteria) and face difficulties in understanding training materials (MOH, 2016). Additionally, CHWs are sometimes not available, or are busy doing other work in order to survive and provide for their families (Community health worker, personal communication, July 26, 2016). This

suggests that the cooperatives might not function well in all the districts. A government Minister acknowledged that the \$4-\$6/ month CHWs receive through their cooperatives cannot sustain them, and a long term plan that provides meaningful income for the CHWs has to be devised and implemented without compromising their contribution to malaria control and to the health of the population (Rwanda Minister, personal communication, July 27, 2016). The government sometimes earmarks income generating activities for CHWS. For example, in IRS campaigns CHWS work as spray operators, work paid for by the government and/or DPs (Rwanda development partner, personal communication, July 27, 2016).

Malaria products, supply and management

Uganda

Uganda's National Drug Policy and National Medical Equipment Policy guide the regulation, selection, supply management, and safety of drugs, medical equipment and devices. Institutions such as the National Drug Authority are mandated to enforce these policies. In terms of the procurement and supply of malaria drugs, the National Medical Stores (NMS) conducts bulk procurement of NMS-marked drugs and health supplies by pooling funds from public health institutions and facilities. The Global Fund and PMI, however, do not use the NMS to purchase malarial drugs and products. Instead, the Global Fund uses a pooled procurement system to purchase drugs and health commodities, and PMI uses private contractors to procure malaria products. As noted by a UMOH official, the Global Fund and PMI do not trust Uganda's government systems (UMOH official, personal communication, July 15, 2016). PMI has also questioned the capacity and credibility of the NMC in storing malaria products and supplying them to health facilities (PMI, 2017). In terms of storage and distribution, PMI uses the Joint Medical Stores (JMS), managed by faith-based not-for-profit organizations, whereas the Global Fund uses the NMS. Using

Global Fund and public funding, the NMS stores and distributes drugs purchased through regular (once every two months) door-to-door delivery. Both the storage and distribution of supplies face challenges, including leakages that lead to drug “stock outs” at facilities and village health teams (UMOH official, personal communication, July 15, 2016). There are also documented incidents whereby anti-malaria drugs and bed nets are leaked out of the system to the private sector (UMOF official¹, personal communication, July 19, 2016). This finding is in line with the 2016 Global Fund audit report, which also concluded that the supply chain management system is ‘sub-optimal’. It lacks an integrated distribution system for health commodities and mechanisms to enforce accountability (Global Fund, 2016).

The Pharmacy Division of the MOH is tasked to carry out regular assessments, develop plans, and build capacity among health workers in logistics management at the local level. Despite their efforts, stock outs and leakages persist in Uganda. While this could be due, in part, to a lack of staff to carry out inspections at the district level, as suggested by UMOH, USAID & Makerere University School of Public Health (2010) and USAID (2010), there also seems to be some negligence at the leadership level. There is no drive to streamline supply chain management in Uganda since national medicine regulatory authorities fail to enforce existing international guidelines to prevent storing expired drugs, leakages, and stock-outs (Nakyanzi, Kitutu & Kamba, 2009). There is also poor coordination between the MOH and districts regarding supply chain management (UMOH official, personal communication, July 15, 2016). For example, districts do not coordinate with the MOH on upgrading or building new health facilities, resulting in shortages (or stock outs) of drugs and health supplies at public health facilities at the primary health care level. The NMS supplies an equal amount of malaria drugs and products to all similar level health centres regardless of case load, leading to shortages and/or the oversupply of malaria commodities at health facilities (UMOH official, personal communication, July 15, 2016).

Rwanda

The Medical Procurement and Production Division (MPPD) of the Rwanda Biomedical Center is responsible for procuring all pharmaceutical commodities including medical supplies, generic essential medicines, and laboratory reagents for public health facilities in Rwanda. All malaria drugs and malaria control commodities, with the exception of USAID-funded commodities, are purchased through the MPPD. Once malaria drugs and commodities are purchased through a tender process, the MPPD stores them in its warehouses in Kigali. The drugs are then distributed to districts which, using their own transportation infrastructure, deliver to hospitals and health center pharmacies (PMI, 2017). Community Health Workers collect malaria drugs and other supplies from the health center pharmacies. The quantification of malaria commodities, which is done annually, follows the national supply chain system: CHWs make requests by filing stock cards that are submitted to the health centre in their catchment area, which after ensuring quantification is accurate for the Health centre's catchment area and adding its own estimate for the malaria drugs it needs for the year, makes the request to the MPPD. Although the quantification is done yearly, the resupply is done on a monthly basis. The UMOH uses a Logistic Management Information System (eLMIS), which replaced the manual LMIS in 2013, to manage logistics data and commodity supply and consumption. Although the drug supply and management largely functions well, anti-malaria drug stock outs have been reported in the past. The Auditor General's (AG) 2014 report also revealed the procurement of sub-standard mosquito nets by the MPP (Uganda Auditor General, 2014). The AG also found expired drugs in the RBC's MPPD warehouses in 2015, although it is not clear if the expired drugs included malaria drugs (Uganda Auditor General, 2015).

Unlike in Uganda where the AG undertakes similar investigations but findings and recommendations are rarely enforced, the Rwandan Parliament immediately followed up on

the AG's report, summoning the RBC board of directors to account for its actions. The chairman of the Public Accounts Committee of Parliament, Juvenal Nkusi, characterized the findings of the AG as "shocking" (Kagire, 2015). Rwanda's MOH has since taken measures to rectify the drug supply and management anomalies including; training health professionals in quantification to avoid overstocking and/or stock outs; improving reporting capabilities and commodity management throughout the supply chain (i.e. national, district, and community levels); and purchasing trucks to improve the transportation infrastructure at the district level. Today, every district has a truck to supply drugs to health facilities. Rwanda also started using drones to deliver blood to remote health centers which is invaluable for treating severe malarial anaemia (Simmons, 2016). The Minister of Technology gives credit to the president for this innovation. He has been personally involved in this project which makes Rwanda the first country to use drones to improve the supply of drugs and health commodities (Simmons, 2016).

Most Rwandans have good access to anti-malaria drugs and commodities through Community-Based Health Insurance (*Mutuelles de Santé*). Donors and the government also subsidize malaria control services and products. For example, malaria control products are tax exempt in Rwanda. According to a local official, districts have the names of every resident indexed according to income bracket (*Ubudehe* categories 1-4) in order to determine who can afford to pay for the Community Health Insurance and who cannot. Those who cannot afford insurance are supported by the government (Rwanda local government official, personal communication, July 26, 2016). The Ministry of Local Government set the criteria, the national government provided technical support, while the actual data was collected and analyzed at the local level. The whole project demonstrates enormous capacity. A local official observed that community leaders and residents alike, in both urban and rural areas, participated in the categorization project without hesitating for fear that the information

would be manipulation or misused, a level of cooperation between state and society, or compliance with government policies, that is very uncommon in other parts of Africa. There are, however, problems with the means-tested health insurance coverage. Issues related to fairness and efficiency have been raised. These include: weak financial-risk sharing between the community-based health insurance and other insurance companies; and financial barriers to paying their premiums experienced by the people just over the subsidy limit which sometimes lead to arrests and the confiscation of animals (Nyandekwe, Nzayirambah, & Kakoma, 2014; Chemouni, 2018).

Surveillance, monitoring and evaluation

Uganda

In 2001, the Uganda Malaria Surveillance Project (UMSP), whose initial focus was recording and reporting drug resistance, was founded. Uganda's monitoring and evaluation (M&E) capabilities improved over the 2005-2010 period (Talisuna et al., 2015). Uganda's NMCP developed the first M&E plan in 2008, paving the way for the first Malaria Indicator Survey in 2009 (Talisuna et al., 2015). Uganda's three most recent malaria control strategic plans have contained clearly defined indicators against which progress could be measured (MTR, 2014). Additionally, the HMIS was expanded to include data on the human, financial, and material resources available, and is linked to MOH's Resource Centre, which manages HMIS and DHIS, allowing "specific indicators to be captured within the DHIS" (UMOH, 2014, p. 45). Uganda introduced the Integrated Disease Surveillance and Response (IDSR) strategy the same year (i.e. 2000) with the goal of strengthening the collection and use of surveillance data for public health decisions. According to Lukwago and colleagues (2012), the surveillance system has improved the ability of the MOH to respond to and manage disease outbreaks, but remains vulnerable given the lack of budgetary commitment (Lukwago et al., 2012). The establishment of five sentinel hospitals has also contributed to improving

the quality of data on pediatric admissions (Okiro et al., 2011; Section 4.6). In the mid-2000s, there was rapid expansion of the scope of UMSP in terms of its research and surveillance capacity, a period the UMSP refers to as “the Infectious Disease Research Collaboration in Uganda” (IDRC). In 2007, the MOH launched a web-based HMIS, but most of the districts have not adopted the platform. More recently, in an effort to harmonize and integrate health information systems, the UMOH launched a second District Health Information System (DHIS-II) (Kiberu et al., 2014).

In 2010, the Program for Resistance, Immunology, Surveillance and Modelling of Malaria (PRISM) was set up as a dedicated East Africa International Center of Excellence for Malaria Research. PRISM is “designed to address the complexity of interactions between the mosquito vector, malaria parasite, and human host, and combine standard malaria surveillance techniques and metrics with cutting-edge methods designed to improve surveillance” (Talisuna et al., 2015, p.70). However, Uganda’s M&E framework has been faced with numerous challenges including the lack of an M&E work plan, poor planning, poor coordination, inadequate and delayed funding, inadequate data, poor data quality and data analysis, and inconsistencies in interventions and malaria trends (UMOH, 2014).

At the health facility level, data is captured in the HMIS form 105, but neither the facilities nor the district administration have easily accessible electronic HMIS that can facilitate monitoring of trends and decision-making to facilitate malaria control. According to a local public health professional in one of the health centers in Uganda, nothing major happens regardless of the direction of travel in terms of trends in morbidity and mortality cases (Uganda local health professional, personal communication, July 16, 2016). At the community level, data entry by VHTs is either limited or non-existent and when it exists the quality is poor (Uganda local health professional, personal communication, July 16, 2016). These findings are consistent with the findings of Kiberu and colleagues (2014) who note that

lower level health facilities still use the paper-based system and often transfer inaccurate and poor quality data to districts which pass the data on to the MOH, compromising the overall quality of the system (Kiberu et al., 2014).

Rwanda

Rwanda has a robust M&E system for the health sector and malaria program. The system is strengthened by the clearly defined “hierarchical structure for provision of services in Rwanda and reporting mechanisms” (Global Fund, 2008). Various donors and partners including PMI, UNICEF, and Stop Malaria have over the years supported the NMCP’s M&E unit to ensure the surveillance system functions well. Rwanda’s innovative and web-based health information system, including TRACnet (AIDS information system), and RapidSMS (mobile-based text alerts for maternal and child health), Integrated Disease Surveillance and Response (IDSR), and Entomological Surveillance Program enable the health system to aggregate data and information in a timely manner, facilitating evidence-based decision making and improving service delivery (Farmer et al., 2013). This is critical for malaria control, as timely access to treatment (within 24h to 48 hours of the onset of symptoms as per the “Roll Back Malaria” guidelines) is essential for preventing malaria deaths.

Using the national Demographic and Health Surveys and Malaria Indicator Surveys, the government tracks targets identified in the National Malaria Control Program, including: trends in the ownership and use of ITNs, with a particular focus on children and pregnant women; trends in the number of buildings sprayed with IRS; the management and treatment of childhood fever; and women’s knowledge of malaria and its control. Malaria-related data is also collected from the HMIS, and malaria reports. The NMCP, with the support of PMI and Global Fund, carry out annual quality audits on the data collected from HMIS.

Additionally, Malaria morbidity and mortality rates from health facilities, as well as the data from CHWs through the SSI-com database, are all integrated within the HMIS. A local

official characterized Rwanda's HMIS as a key tool for reducing malaria as it alerts the entire health system when there is an increase in malaria (Rwanda local government official, personal communication, July 26, 2016). The official noted that the district health facilities, the administration as well as the NMCP and MOH closely monitor malaria trends and use the data to make decisions regarding malaria control, including how best to respond to a malaria outbreak.

In 2012, the Rwanda surveillance system detected an increase of malaria cases from 487,150 in 2012 to about 2.6 million in 2015 (DHS, 2016; PMI, 2017). The trend for malaria mortality rates, however, had not changed, indicating the government's ability to diagnose and treat malaria early enough to save lives (DHS, 2016). Experts, development partners and government officials have not established the reasons for the increase, but have suggested the climate (Rwanda has seen anomalies in rainfall), human movement (an increase in the number of refugees fleeing from the political conflict in Burundi), substandard mosquito nets (discussed above), and/or increasing resistance to pyrethroids (the only WHO-approved insecticide available for treating mosquito nets). Resistance to pyrethroids has been well documented globally, but the world will continue to use LLINs to provide physical protection from mosquito bites until another class of insecticide for use on LLINs is developed and approved (Rwanda local government official, personal communication, July 26, 2016).

A malaria expert suggested the spike could be an artifact of improved surveillance detecting more cases, or improved access to services (more people coming to health facilities or CHWs) meaning more cases are reported (Malaria expert, personal communication, May 26, 2016). The expert argued that reliable routine healthcare information data that allows for the conclusive detection of trends is not common in Africa, and morbidity and mortality rates should always be treated with caution. Other factors that might have influenced the data are a change of guard (both the Minister of Health and the manager of the NMCP were dismissed

in 2016), and the government's concurrent scale-up of interventions. With the financial support of PMI, the government launched an IRS campaign in high burden districts and districts on the border with Burundi and Congo. With the support of PMI and Global Fund it also distributed over 1 million LLINs, and had plans to distribute 6 million more LLINs by the end of 2017 (PMI, 2017). It is not yet known if the rate of new malaria cases has dropped since the government launched these campaigns.

Scale up of interventions: achievements and challenges

Uganda

Although Uganda conducted three standard Demographic Health Surveys that included malaria between 1989 and 2006, the scale up of intervention did not begin in earnest until 2006, making the data around this time more relevant. Uganda's 2006 Demographic Health Survey findings showed that the most vulnerable segments of Uganda's population, namely pregnant women and children, did not have access to mosquito nets or treatment: at that time only 16% of households owned one treated net, and less than 10 % of children under five and pregnant women slept under an ITN the night before the survey. Only 18% of pregnant women received two or more doses of IPTp treatment through ANC visits, and only 29% of children were treated for malaria within 24 hours of the onset of a fever as recommended by the WHO (UDHS, 2006). In 2006, Uganda implemented its third Malaria Control Strategic Plan 2005/6-2009/10 by scaling up WHO-recommended malaria control interventions including; Insecticide Treated Nets (ITNs), Indoor Residual Spraying (IRS), Intermittent Preventive Therapy for pregnant women (IPTp), and the use of Rapid Diagnosis Test and Treatment. The effectiveness of the government in implementing each of these interventions has evolved over the last decade or so as discussed below.

In 2002, Uganda implemented vector control strategies that proved successful: a

community-based environmental management program managed by US based Environmental Health Project (EHP) was launched in Kampala and Jinja with the support of the Vector Control Units of the Kampala City Council (Talisuna et al., 2015). Following the identification of breeding sites and consultation with stakeholders, interventions were designed to fill puddles, introduce larvivorous fish, and improve drainage. This resulted in a decline in the mosquito population and malaria prevalence and transmission in these urban settings (Talisuna et al., 2015).

Uganda also started net distribution earlier than Rwanda. In the late 1990s and early 2000s, the distribution of ITNs was done primarily by commercial companies such as Quality Chemicals (Talisuna et al., 2015). Safinet began to enter the ITN market in Uganda around the same period. The commercial distribution of ITNs was made easier in 2000, when the government finally waived import taxes and tariffs on mosquito nets and netting materials (MOH, 2001). This change in policy paved the way for initiatives aimed at creating commercially sustainable ITN markets by NetMark and other USAID funded partners. During this period, donors such as USAID encouraged and invested in the commercialization of treated nets through projects such as the Commercial Marketing Strategies (CMS) venture, which was managed by Population Services International (PSI) and other partners, which began the social marketing of ITNs using the SmartNet brand. USAID, through the NetMark project, a ten year project initiated by USAID to increase the commercial supply of and public demand for ITNs, also supported commercial outfits to distribute ITNs (Talisuna et al., 2015). The 2006 DHS found that over 60% of nets were distributed through the market (i.e. shops, pharmacies, and street vendors) while NGOs and faith-based organization distributed about 14% (UDHS, 2006).

The commercial availability of nets did not immediately improve ITN coverage in Uganda (Talisuna et al., 2015). Following a debate in 2002 as to whether the current private

sector approach ought to be maintained, or ITNs distributed freely, the MOH applied for a Global Fund Round 2 grant to improve the low ITN coverage by distributing free nets. During the same year, an ITN working group was created to scale up ITN coverage. Although the Uganda grant, which was intended to buy nearly 2 million nets, was approved in 2004, allegations of corruption by the MOH led the Global Fund to suspend the grant (as discussed in Chapter Five). Consequently, the ITNs that arrived in Uganda in 2006 were distributed by the Malaria Consortium and PSI. After the Global Fund resumed funding Uganda, the government was awarded US\$ 125 million for 17 million nets, but the MOH was able to purchase only 7 million nets due to procurement problems and coverage remained lower than the 60% target for vulnerable groups (Talisuna et al., 2015).

Since 2007, the government has concentrated on public sector delivery mechanisms, commencing a mass distribution of free INTs. In 2009, Uganda shifted to universal coverage of the whole population with Long Lasting Insecticide Nets (LLINs) as per the recommendations of the WHO. In 2010, 7.3 million LLINs were distributed with Global Fund Round 7 support. Distribution through Antenatal Care (ANC) and Expanded Program on Immunization (EPI) in health facilities remained limited (Talisuna et al., 2015). By 2014, coverage had still reached only 60% of the country. The MOH attributed the poor LLINs coverage to the following factors: low government capacity “to monitor the quality of public health insecticides and LLINs in the open market, weak social mobilization to promote the use of LLINs, increased resistance to the insecticides used for both LLINs and IRS, and limited involvement of other ministries and partners, such as environment and agriculture” (MOH, 2014, p 13). The 2014-2015 Malaria Indicator Survey (MIS) shows an improvement in ITN coverage: the percentage of children under the age of five and pregnant women who slept under ITNs the night before the survey reached 74% and 75% respectively (UMIS, 2015).

Uganda's use of IRS to control malaria predates independence. Since the IRS pilot projects in Kigezi and Masaka districts in the 1950s and 1950s, IRS has been implemented primarily in response to outbreaks (in Kabale, Kisoro, and Kanunu), and in refugee camps in northern Uganda (Talisuna et al., 2015). Following pressure on the MOH to expand IRS using DDT, the National Environmental Management Authority (NEMA) approved the use of DDT, and the MOH, with the support of Research Triangle Institute (RTI), implemented pilot projects in Kabale in 2006, resulting in a drop in reported cases of malaria in the area. Following the success of its pilot project, the President's Malaria Initiative (PMI) provided RTI with over US\$150 million (between 2007 and 2012). The PMI funding led to the expansion of IRS activities in Uganda (AFM, 2007). The use of DDT was later challenged in the courts by communities opposed to its use (which will be discussed in Chapter Six). All 2006-2007 spraying operations were with lambda-cyhalothrin (AFM, 2007). In 2009, it was reported that the parasite had developed resistance in the ten PMI IRS districts (Agago, Amuru, Apac, Gulu, Kitgum, Kole, Lamwo, Nwoya, Oyam and Pader), prompting the MOH to shift to carbamate (Bendiocarb) insecticides (Talisuna et al., 2015). IRS has been shown to be associated with a reduction in malaria infection prevalence and anemia in sprayed districts as compared to non-sprayed districts, particularly after the switch to carbamate-based insecticides in 2010 (MOH, 2014). PMI phased out IRS interventions in Northern Uganda in 2014 after the prevalence of malaria infection had dropped from 62% to 7.2% as noted by a USAID official (USAID official 1, personal communication, July 21, 2016). This withdrawal led to a resurgence of malaria in Northern Uganda. PMI and other partners returned to Northern Uganda in 2016 to implement IRS interventions. The outcome is not yet known. Some communities have refused to let the sprayers spray their houses, which might impact the outcome. More importantly, given that IRS interventions are very expensive, it is not clear how this control approach is sustainable.

Uganda identified Intermittent Preventive Treatment in Pregnancy (IPTp) as a key intervention in its Malaria Strategic Plan 2001-2005. The Malaria in Pregnancy (MIP) control strategy has been implemented through existing service delivery structures, improving IPTp and ITN use among pregnant women. IPTp coverage among pregnant women who had taken two or more presumptive SP treatment courses reached 25% during the time period 2001-2005 (Talisuna et al., 2015). Additionally, 50% of health facilities (Public and Private Not-For-Profit) reported experiencing no stock outs of the nationally recommended drug for IPTp lasting more than 1 week at any time during the past 3 months (HMIS, 2010). The 2014-2015 MIS indicates that the percentage of pregnant women who had taken IPTp treatments of 2 or more doses as recommended by the WHO reached 45% in 2015, which is an improvement from previous years but remains below the target set in the National Malaria Reduction Strategic Plan 2014-2012.

Uganda has also scaled up malaria case management over the years. Although malaria was primarily diagnosed based on clinical features during the 1996-2001 period, the MOH recognized that malaria case management should be based on prompt diagnosis and treatment with appropriate, affordable, effective, and safe anti-malarials. To improve effective diagnosis, investments in quality of laboratory diagnosis led to an increase of facilities with functional microscopy services from 24% (2008/9) to 59% in 2013, although supervision and quality control remained weak (MOH, 2014). In facilities without functioning laboratories, Rapid Diagnostic Tests (RDTs) for *Plasmodium falciparum* were found useful (Talisuna et al., 2015). A collective effort by the MOH and its development partners to scale up RDTs led to an increase in the use of malaria diagnostics for febrile patients from 8% in 2008 to 30% in 2010 (MOH, 2010).

To improve the treatment of children with fever/malaria at the community and household levels, the MOH rolled out the Home Based Management Fever initiative in nine

districts in 2002, which resulted in an increase in the number of children treated for malaria from 7% in 2001 to 39% in 2003 (Fapohunda et al., 2004). Building on this success, HBMF was scaled up, covering 47 districts (Malaria Consortium, 2003). However, the approach faced challenges including the low motivation of community health workers, weak supervision, and insufficient integration with other community-based health interventions. The MOH adopted ACTs as the first line treatment in 2004 after resistance to CQ and CQ+SP continued to rise, reaching an average of 16% and 12% respectively during 2002-2004. However, universal access to ACTs remained a challenge in Uganda since the private sector provides first treatment contact for an estimated 40-50% of fevers (Talisuna et al., 2015).

To improve access, the Consortium for ACT Private Sector Subsidy (CAPSS) launched a pilot project in 2008, introducing a subsidized first-line AL product in four intervention districts (ACTs marked with a leaf) and a fifth ‘control’ district (ACTs with no mark) with a price per package ranging from US\$ 0.10 to US\$ 0.40 (Talisuna et al., 2015). In 2010, an initiative to increase the availability of ACTs in the private sector by reducing its price to US\$ 0.05 per adult dose was tested in ten countries, including Uganda, by the Global Fund’s Affordable Medicines Facility for Malaria (AMFm). The initiative was unsuccessful due to delays in implementation. In terms of coverage, in 2011 only 30% of children with fever were treated with ACTs within 24 hours of the onset of malaria symptoms (Talisuna et al., 2015). According to the 2014-2015 MIS, this figure reached 87 % in 2015, which is a major improvement. However, counterfeit ACTs pose a real threat to this progress and might contribute to the emergence of drug resistance in Uganda. A study conducted between 2010 and 2011 at 93 drug stores found that 38.9% of the ACTs in these stores were fake (Talisuna et al., 2015). This situation calls for strong monitoring and enforcement by the government but Uganda’s enforcement capabilities, as discussed above, are not strong.

Given the proven efficacy of these WHO-recommended interventions, there is no doubt that the malaria control interventions implemented in Uganda over the last decade and a half have saved lives. Nonetheless, malaria morbidity and mortality rates have either increased or not changed over the same period. According to the WHO (2017), malaria admissions increased from approximately 900 per 100,000 in 2006 to approximately 1700 per 100,000 people in 2015, while malaria deaths stayed the same at approximately 15 per 100,000 between 2006 and 2015, although there were spikes in these numbers over different periods (see figure 9).

Figure 9: Malaria Admissions and Deaths in Uganda

Source: WHO, 2017

Rwanda

As briefly mentioned above, Rwanda's postwar government's malaria control efforts began with stark findings from a Demographic Health Survey (DHS) in 2005 showing that the most vulnerable populations, pregnant women and children, did not have access to mosquito nets or treatment: 1/5th of households owned treated nets, only 12 % of children

who had fevers were given antimalarial drugs, only 3% of those took them the same day the fever appeared or the next day as prescribed by WHO, and fewer than 6% of pregnant women received access to antimalarial drugs to treat or prevent malaria (DHS, 2005; Pierre-Louis et al., 2011). Subsequently, Rwanda developed its first National Malaria Control Strategic Plan for 2005-2010. During this period, the Ministry of Health (MOH) focused on preventing malaria among vulnerable groups, namely children under five and pregnant women, and on the early diagnosis and treatment of malaria using WHO recommended malaria control interventions including Insecticide Treated Nets (ITNs), Indoor Residual Spraying (IRS), Intermittent Preventive Therapy for pregnant women (IPTp), and the Rapid Diagnosis Test and Treatment. The effectiveness of the government in implementing each of these interventions has evolved over the last decade or so.

With regard to ITNs, for example, between 2004 and 2005 over 3.6 million nets were distributed with financial support from the Global Fund (PMI, 2007). Nearly half of the nets were distributed to households with children under the age of five in all districts in the country. In 2006 and 2007, a campaign to distribute 3 million ITNs (mainly through CHWs) to children and pregnant women was launched with success. These campaigns were complemented by the distribution of ITNs through an expanded program for immunization (EPI) and antenatal clinics (ANC). By 2009, the Rwandan government was implementing the WHO recommendation to increase coverage by Long Lasting Insecticidal Nets (LLINs) to 90% of the whole population, not just children under the age of five and pregnant women. According to the last Demographic and Health Survey (2015), in 2015 about 83% of Rwandan households owned at least one LLIN (National Institute of Statistics of Rwanda, Ministry of Health, and ICF International, 2015). Although this high ITN coverage has been linked to the reduction of malaria cases in Rwanda, challenges still remain in the proper use of nets by the public. According to an RMOH official, some people put the net between the

mattress and the bed instead of hanging it up to prevent mosquito bites (RMOH official 3, personal communication, July 26, 2016).

IRS was not a major component of the Rwandan national malaria control strategy before 2007 because it was a very expensive undertaking. In 2007, Rwanda became a beneficiary of the US President's Malaria Initiative (PMI), and with the financial and technical support of the PMI, the first 145,000 structures (houses) were sprayed (PMI, 2007). By 2008, IRS became a main vector control strategy in Rwanda, with the PMI as the principal partner in this area (PMI, 2008). Between January and August 2008, plans to implement IRS in five districts failed to materialize due to "communication and coordination" problems (PMI, 2009). The NMCP has since established an IRS Information Education Communication task force, comprising the Ministry of Health's Communication Unit, the NMCP, Research Triangle Institute, Population Service International (PSI) and PMI, improving collaboration and rallying behind common IRS messaging for the public in the media (PMI, 2009). In 2015, the IRS campaign in high burden districts resulted in the spraying of 97.8% of the structures (houses) in target districts. According to a development partner, the government has developed the capacity to implement IRS by training trainers who educate spray operators in different districts, but PMI, the main source of funding for IRS, is yet to hand over responsibility for the operation to the government (Rwanda development partner, personal communication, July 7, 2016). PMI still uses contractors to manage IRS and work with the NMCP, indicating a lack of confidence in the in-country system.

The government updated its treatment policy regarding Intermittent Preventive Treatment for pregnant women (IPTp) by replacing chloroquine with SP Fansidar in the early 2000s, but the NMCP discontinued IPTp after the parasite developed resistance to sulfadoxine-pyrimethamine, the drug of choice at the time (PMI, 2013). The WHO Malaria

Advisory Committee is reviewing the recommendations of the Evidence Review Group, which maintains that “IPTp-SP remains highly cost-effective in preventing the adverse consequences of malaria on maternal and fetal outcomes” (WHO, 2015, p. 27). Current interventions in Rwanda now focus on the distribution of LLINs to pregnant women at antenatal clinics (ANCs), and health education for pregnant women at ANCs and through CHWs who both monitor malaria and engage with pregnant women. Focused antenatal care (FANC) is now implemented nationwide with the financial support of PMI. The PMI is also supporting the NMCP to implement a pilot program of intermittent screening and treatment (IST) for pregnant women in two districts (PMI, 2016).

In terms of early diagnosis and treatment, the NMCP expanded the Home Based Management of Fever (HBMF) programme that was piloted in 2005. In 2006, following WHO recommendations, all health facilities transitioned to Artemether-lumefantrine (AL), because the malaria parasite had developed resistance to CQ and SP (PMI, 2013). In 2009, the NMCP revised its treatment policy and restricted treatment of malaria to RDT and laboratory-confirmed cases (PMI, 2011). By 2010, 94% of malaria cases in Rwanda were confirmed through laboratory or RDT, resulting in Rwanda having “one of the highest parasitological diagnosis rates in Africa” (Malaria Program Review, 2010). According to the DHS (2016) the percentage of children tested and treated for malaria within 24 hours of the onset of fever increased from 62% in 2008 to 96% in 2015. Although the systematic review conducted by the Worldwide Antimalarial Resistance Network (WWARN) found no evidence of ACT resistance, the emergence of resistance in Rwanda (and many other malaria endemic countries in Africa) is real (PMI, 2016). Rwanda’s NMCP has developed an Insecticide Resistance and Mitigation Plan (IRM) to monitor drug resistance, and conducts annual drug quality control with the support of academic institutions such as the National

University of Rwanda, which has a pharmacy department capable of conducting drug analysis (PMI, 2016).

The scale up of the above interventions led to the reduction of malaria admission cases and deaths over the last decade. WHO (2017) data shows the decline of hospital admission from approximately 2000 per 100,000 people in 2005 to fewer than 400 per 100,000 people in 2015. Malaria related deaths also declined in the same period from approximately 20 per 100,000 people in 2005, to fewer than 5 per 100,000 people in 2015, with the exception of spikes in 2009/10 and again between 2012 and 2017, as discussed in the preceding sections (see figure 10).

Figure 10: Malaria Admissions and Deaths in Rwanda

Source: WHO, 2017

Conclusions

This chapter has explored the structural basis for malaria control in Uganda and Rwanda. I have examined how these structures and institutions work, and what impedes or fosters their effectiveness in achieving malaria control objectives. It is clear from the analysis that both countries have faced considerable challenges, particularly because combatting malaria, as discussed above, requires the effective mobilization of a wide range of capacities

from the community level to the global level. The major conclusion we can draw from the analysis is that Rwanda has been much more effective in mobilizing and deploying capacities for malaria control than Uganda. Certainly, Rwanda's effectiveness has been challenged over the last few years, as malaria cases have increased, but Rwanda has shown over the last decade and a half that it can look for and find solutions for each problem that emerges on the path to controlling malaria, while Uganda, although it has diagnosed every problem as it emerged, has often been ineffective in enforcing solutions. The variation in effectiveness can be attributed to three main factors.

First, the involvement of politicians from the presidency to the mayors in the implementation of malaria control in Rwanda has made the difference. In Uganda, malaria control is seen as a technical matter that has been left to the health system to manage. In Rwanda responsibility for malaria control rests with the political/administrative structures from the presidency to the district to the village level. The involvement of Rwandan politicians is not characterized by high-level intrusion into the day-to-day activities of the structures that provide malaria control services. It is defined instead by a well-articulated malaria control agenda and the implementation of regular checks by institutions created to hold these structures accountable for meeting the goals set out in the malaria control strategy and in the government's development plans. In Uganda, there is no co-ownership of malaria control by the politicians/administrative structures and structures that provide malaria control services. In short, as one UMOH official put it, the implementation of malaria control in Uganda is "medicalized".

Second, Rwanda was successful in creating a level of coherence within government institutions and structures at the national and local levels that allowed it to mobilize capacity from external actors, various government institutions, and its population. This collective capacity was deployed effectively to control malaria. In the case of Uganda, lack of

coherence and unity of purpose in relation to controlling malaria has hampered the ability of the government to effectively mobilize and deploy the capacity available from internal and external actors, institutions and society, despite the fact that, in many ways Uganda's capacity to combat malaria effectively is greater than that of Rwanda. This contradiction leads me to conclude that there is an important distinction between the availability and deployment of capacity.

Third, it is clear from this analysis that policy innovation is present in Rwanda, and absent in Uganda. When certain aspects of malaria control implementation do not work in Rwanda, actors go back to the drawing board and come up with innovative solutions (eg. cooperatives for community health workers), whereas in Uganda, policy failure did not translate into policy innovation in malaria control. Given that Uganda has the stronger knowledge base in terms of research institutions and a more educated work force, it is difficult to conclude that the failure of policy innovation is due to a lack of ideas in Uganda. It is more likely the result of the failure (incapacity) to enforce policy solutions and ideas, a failure of political will to deploy available ideas and capacities for achieving stated malaria control objectives.

CHAPTER VI

POLICY (IN)DEPENDENCE AND MALARIA CONTROL IN UGANDA AND RWANDA

This chapter presents my findings and describes my analysis of the interaction between the states of Uganda and Rwanda and the external and internal actors involved in development and health within their respective countries, particularly those actors involved in malaria control. The external actors considered in this research include donors and international NGOs; internal actors include civil society groups, private actors and the public. The chapter traces how each state has earned, maintained and/or lost autonomy since its current government came to power, by tracing policy processes and examining the various instruments, institutions and fora that facilitate policy dialogue between the two countries and their development partners.

In the state-centred literature autonomy is measured as the ability of the state to pursue its own official goals whether or not they reflect the interests of powerful external and/or internal actors (Skocpol, 1985). In our context, much emphasis is given to the ability of the states of Uganda and Rwanda to exercise control (policy independence) in spite of being aid dependent which gives the donors an opportunity to influence the malaria control policy agenda. In this chapter I argue that Rwanda has, relative to Uganda, a great deal of control over its malaria policy making process. While both countries have set up structures and institutions to facilitate interaction with donors and international NGOs with the aim of earning autonomy (policy independence), I argue that Rwanda has been more consistent in its pursuit of policy independence and has earned greater autonomy by being more effective and credible than Uganda in the eyes of donors and development partners. I will also show that autonomy is not static, as Uganda has also been able to earn varying degree of autonomy over

different periods. Overall, this chapter shows that strong political will at the leadership level has been key in earning greater autonomy for Rwanda than Uganda.

The chapter is structured as follows: In the first section I trace the evolution of Uganda's engagement with development partners. In this section I show how Uganda's political leadership, who were adamant about protecting the government's policy independence in their rhetoric, actually ceded considerable policy space¹⁶ to its development partners. Uganda gave its donors a more significant role in defining the country's development agenda than did the Rwandan leadership. In the second section, I analyse the way in which Uganda developed systems for engaging development partners in order to obtain policy independence. In the third section, I discuss how Uganda came to cede policy space in exchange for aid. The fourth section touches on how Uganda settled for a subordinate role in malaria control in relation to the influence of donors and development partners in the malaria control policy agenda.

The fifth section provides an overview of the historical roots of the Rwandan political elite's resolve to earn autonomy. The discussion covers the legacies of the genocide and the political leadership's commitment to change how the state has in the past interacted with its development partners. The seventh section discusses the way in which Rwanda institutionalized engagement with its development partners. The eighth section elaborates on how Rwanda assesses the performance of its development partners both in terms of their contribution to the government's development agenda and their use of in-country systems (eg. by channeling funding through government systems). In the last section, I analyse how the Rwandan state disciplines development partners in order to maintain policy independency and ensure that the involvement of development partners is in line with government priorities.

¹⁶ For this research policy space is considered as the flexibility an actor has to set policies to achieve developmental objectives.

Exerting policy independence: Hostile beginnings to the seizure of policy space by development partners in Uganda

If a country is not independent politically, if the leaders cannot make their decisions without being pressured by outside powers, then that nation cannot solve its problems. Whatever solutions you adopt will be solutions in the interests of other forces. We are very conscious of this point because we have been living under leaderships that were subservient to foreign interests. (Museveni, 2000, p.148).

When the National Resistance Movement (NRM) took power in Uganda in 1986, the party's leadership was sceptical of donor involvement in Uganda's public policy because they believed that the West in general, and international financial institutions such as the IMF in particular, had colluded with Uganda's former leaders in the mismanagement of the country's political economy (Museveni, 1986). One of the ten points in the program put forward by the NRM before it took power placed great emphasis on policy independence and was hostile toward external involvement in national policy making.

After seizing power, the new NRM government introduced 'price and exchange' controls, acting against the advice of its development partners (Adam & Gunning, 2002). However, as the government faced growing challenges, including the emergence of a new rebel group in Northern Uganda, discontent within the NRM movement, the need to rebuild an economy and social infrastructure destroyed by the prolonged war, and the burgeoning of neoliberalism in the global arena, NRM leaders ceded some of their initial independence. NRM leaders in Uganda embraced a more significant role for donors in defining their country's development agenda than RPF leaders accepted in Rwanda. In 1987, the new government, with the support of the World Bank and IMF, adopted the Rehabilitation and Development Plan, a two-year plan under the Structural Adjustment Program (SAP) that contained conventional market-based solutions to Uganda's recovery and developmental challenges, including liberalization of the country's economy (Sepehri & Loxley, 1992). This was the beginning of a closer relationship between Uganda and its donors which lasted for

years and led to the pouring of development aid into Uganda through the 1990s (Omach, 2009). Uganda's positive record in restoring peace and in registering economic growth during the 1990s allowed donors to promote Structural Adjustment Programs in Africa (Dijkstra & Van Donge, 2001)

The prevailing neoliberal-informed development narrative during this time was that “the economy has been liberalized, the army integrated, and the government of President Museveni is now tackling its most pressing problems: the bloated civil service, privatization of the parastatals, and a future democratic political system” (Watson, 1991, p.13). Uganda's status as the darling of the West and of donor countries secured for the new NRM government the political support and the development aid it needed, so the regime let its development partners play a major role in driving the development agenda as long as it did not threaten the NRM's political domination. When the government deviated from the neoliberal course, development partners “used their leverage to force policy back on track” (Brett, 1994). For example, the Minister of Finance, who resisted some of the market-based prescriptions for development, lost his job following a push from donors to replace him (Brett, 1998). Critical of the government's excessive policy dependency on donors, Himbara and Sultan (1995) argue that under the sway of its development partners, Uganda was worse off than Uganda under colonial rule. They describe Uganda as akin to South Africa's apartheid-era Bantustans because foreign actors dominated the policy-making process. It looked to them as if “with the exception of territorial integrity, almost all other elements of the Ugandan state are in question. In regard to the administrative apparatus, it is very clear that it is essentially the various international agencies that are responsible for its survival” (p.91).

The impact of Structural Adjustment Policies was deeply felt in Uganda's health sector. Okuonzi and Macrae (1995) point to the imposition of user fees, and a drug policy

sponsored by Uganda's donors, to argue that the domination of international actors in directing health policy "threatens national sovereignty and weakens mechanisms for ensuring accountability" (p. 122). There were two key health programmes introduced during this period: the World Bank's "First Health Project" which focused on building healthcare facilities, and a UNICEF funded "Expanded Program on Immunization" (EPI). Both of these initiatives were implemented "through institutions which ran in parallel to the government health system" (Macrae et al., 1996). According to Macrae and colleagues (1996), both programmes not only failed to improve the health status of the population, but actually undermined efforts to rebuild the health system because the policy process privileged vertical programming and marginalized the role of the government. By the mid-1990s, 30-50 % of Uganda's health services were provided by non-governmental organizations funded by external donors, in many cases without even the knowledge of the government (Cannon, 1996). Because the NRM leadership prioritized economic recovery during this period, the health care sector and health policy were left at the mercy of external actors until the late 1990s.

Developing systems of engagement and obtaining policy independence in Uganda

Uganda's engagement with development partners, including Health Development Partners (HDP), was characterized by two distinct modalities in two different time periods. From the late 1980s through to the early-2000s, the policy development process was co-owned, if not dominated, by Uganda's development partners. The latter part of this period saw a stronger voice for government in the policy making process and a push to use government systems for health service delivery. The latter part of the decade between 2005 and 2015 was characterized by a breakdown in trust between the government and its development partners, resulting in less use of government systems to channel resources. For example, the Global Fund was suspended in 2005 following a corruption scandal involving

Global Fund money. The lack of funding might have contributed to the increase in malaria admission and death rates between 2004 and 2006 (as shown in Chapter Five). When the Global Fund resumed funding and millions of nets were distributed in 2006, the rates decreased for the next two years. Hence it can be argued that there was a difference in performance in the two periods in terms of malaria outcomes, although other factors such as political will also had a major impact on the overall efforts to combat malaria and on malaria control outcomes.

The framework for policy dialogue in the two periods also varied. In the initial years of the first period, the Office of the President and the Ministry of Finance led policy discussions with development partners. These policy discussions led to debt relief for Uganda in 1998, after which donors started providing budgetary support to pro-poor sectors specifically, including the health sector, through the Poverty Action Fund (PAF). The government, however, pushed for general budget support and insisted on the use of in-country systems to channel resources in order to increase flexibility in policy and programming. In 1998, the government adopted the Poverty Eradication Action Plan (PEAP) and the PEAP framework became the *de facto* policy dialogue framework. In the same year, Uganda hosted a partnership meeting between the President of the United States, Bill Clinton, and East African Heads of State including President Museveni. Uganda's quest for policy independence can be discerned in the communiqué released from the partnership meeting. It stated that the leaders commit themselves to a new and fresh partnership based on mutual respect and a clearly defined division of labour in achieving economic growth and transformation (US White House, 1998).

In 2001, Uganda and its development partners met in Entebbe. They agreed to align donor funded projects with the government's Poverty Eradication Action Plan, and to use in-country systems for their implementation. The agreement, known as the Entebbe Partnership

Principles, was officially signed by the Government and its development partners in 2003. The principles emphasized that the government would be more effective in its pursuit of poverty reduction, and would fight corruption while also taking the lead on donor coordination (Lake, 2004). The principles required the donors to recognize the government as the lead in the policy process, align their engagement with the country's policy agenda and use and support in-country systems (Lake, 2004).

In the health sector specifically, the government and health development partners (HDPs) signed a Memorandum of Understanding (MOU) in 2000 that committed Uganda's donors to align their support with the government's National Health Policy (NHP) (1999), the Health Sector Strategic Plan (HSSP 2000/1-2004/2005) and Sector Wide Approach (SWAp). This agreement was the result of negotiations that spanned three years (1997-2000). According to the WHO (2000), the SWAp concept was first considered by the Government of Uganda, donors and other stakeholders in April 1997. In September 1997, WHO, SIDA and DFID carried out a joint mission to assess the viability of adopting SWAp for health care development. In January 1998, the government organized the first consultative workshop on SWAp; between September '98 and November '99, a policy dialogue between the government and donors in Uganda and Geneva led to the adoption of the Health Sector Strategic Plan and National Health Policy in 2000. As briefly discussed above, the Ministry of Finance played a major role in coordinating policy dialogue during this period. However, some fora for engagement between the state and its DPs were developed specifically for the health sector, including the Health Sector Review Committee (HSRC), a high level policy forum convened quarterly for dialogue between donors and government at the national and sub-national level, parliamentary committees, and civil society, and the Health Policy Implementation Committee which brought various of the HSRC actors together on a monthly basis and reported to HSRC on the implementation of the SWAp in the health sector.

Policy dialogue in the late 1990s led to a slight shift in donor positions as donors started loosening conditions. By 2001, key development partners including the World Bank and the UK's Department for International Development (DFID) accepted the government's position and started channeling resources through the government in the form of general budgetary support, to a lesser degree similar to the budgetary support provided to Rwanda, which gave the government more autonomy and greater control in the allocation of externally mobilized resources to support priorities outlined in its development plans including the PEAP (Aziz et al., 2015). The government continued to push for more control, resulting in the adoption of the 2003 Partnership Principles. Support in this modality reached almost US\$ 700 million in the FY 2006/2007 (European Commission, 2015).

Exchanging policy independence for 'depoliticized' development support in Uganda

Interaction between the Ugandan state and development partners changed again in 2006 as donors cut back (some stopped) the resources they were channeling through the country systems in the form of general budgetary support. This happened for two main reasons. First, many of the donors, including the UK, Scandinavian countries, and Ireland, were opposed to Museveni's Constitutional amendments that successfully abolished presidential term limits and to the shrinking political space in Uganda (Molenaers et al., 2013). The pressure on donors to use their leverage in order to promote "good governance" and respect for political rights had been mounting prior to the 2006 election cycle. In fact, donors had been criticized as "complicit collaborators" with Museveni's government (Tangri & Mwenda, 2006; Epstein, 2014). As Tangri and Mwenda (2013) note, donors seemed reluctant "to undermine a government which they ha[d] held up as one of the most successful in Africa in carrying out donor-sponsored economic reforms," but pressure from the media and from Uganda's opposition groups eventually compelled them to tie dialogue on development to the democratization agenda. Secondly, corruption became rampant in Uganda

(Tangri & Mwenda, 2006; Epstein, 2014). The health sector was one of the sectors hit by corruption scandals during the 2006 election cycle when the government was accused of using Global Fund money to finance President Museveni's re-election campaign (Talisuna et al., 2015). A senior government official with the MOF confirmed that the mismanagement of Global Fund money damaged the credibility of the government and weakened its capacity to fight public health problems, including malaria (UMOF official 2, personal communication, July 15, 2016).

These developments led to a partial return to a project-based funding modality. Some donors avoided using government systems or channeling resources through the government. Overall, the impact of this shift on the government's behaviour was minimal. Uganda's donors were unable to present a united front, and the resources withheld were not significant enough to have a serious impact (Overseas Development Institute [ODI], 2015).

Unperturbed, the Ugandan government continued to push for greater autonomy and policy independence. In 2006, the Uganda Joint Assistance Strategy (UJAS) was developed by the government in consultation with its DPs, including donors and civil society organizations. Eleven DPs signed the policy document (Tabura, 2014) which was based on the second Poverty Eradication Action Plan (2005-2010) and again outlined the principles of aligning donor support with the government's development agenda and avoiding the use of parallel systems to implement development projects. One of UJAS' principles was the division of labour between development partners in order to minimize fragmentation and strengthen government ownership of initiatives. Implementation remained poor, and the momentum supporting UJAS died within a year (Tabura, 2014).

In 2009, the Joint Budget Support Framework (JBSF) was launched under the leadership of the Office of the Prime Minister to "reduce transaction costs of budget support for the government, increase the predictability of disbursements, and create a stronger and

more consistent policy dialogue that fosters mutual accountability in line with Paris Declaration on Aid Effectiveness” (World Bank, 2010, p. 4). Under the JBSF, two bodies were created: a Development Partners Policy Committee to meet regularly and engage government on high level policy matters regarding key principles in the JBSF; and a Technical and Policy Dialogue Taskforce to oversee the design and implementation of JBSF principles. The JBSF was complemented by Sectoral Working Groups designed to facilitate policy dialogue between sectoral leadership and DPs. Concerned that development partners would have excessive influence in policy making and program development at the sectoral level, the government moved this engagement to the level of the Prime Minister and discouraged any sectoral focus. While this move can be seen as evidence of government commitment to dialogue with its DPs at the highest level, it also gave the OPM considerable control over DPs engagement with local actors, and might be seen by local actors to have undermined local efforts since DPs started ‘doing business with the highest office’.

The Joint Assessment Framework (JAF) developed under the JBSF to monitor its implementation (World Bank, 2010) was also undermined. JAF products often focus on the government’s performance in the area of public financial management as well as other areas donors consider vital, including good governance and respect for human rights. In other words, although JAFs are in theory conducted jointly by the DPs and the government to assess projects, they are often DP-driven and their findings (particularly related to good governance and human rights) often create tension between the government and DPs (European Commission, 2015). While the Ugandan Government objected to the politicization of these policy dialogue fora, its relationship with its donors remained solid and money kept flowing, perhaps owing to Museveni’s skill at engaging donors. Alternative reasons that the *status quo* prevailed include a convergence of interests between Uganda and Western powers

within the international system, Uganda's role as a mediator in various conflict-ridden parts of Africa, or its participation in the "war on terror" (Fisher, 2012).

In 2010 the government adopted the National Development Plan (NDP 2010/11-2014/15), including a section meant to ensure the alignment of DP support with the state's development agenda (ends) and their compliance with government processes (means). To ensure the implementation of the partnership principles spelled out in the NDP, the plan called for improved policy dialogue between the government and DPs, and established the Local Development Partners' Group to facilitate that dialogue. The plan also stated that the government would develop a new Partnership Policy in the future. In 2012, the Ugandan Auditor General reported the misappropriation of US\$15 million in donor funds intended for development projects in conflict-affected Northern Uganda by the Office of the Prime Minister (OPM). The revelation led to the suspension of budgetary support by all JBSF DPs (European Commission, 2015). The withdrawal of support proved temporary. Aid resumed in 2013 after the government vowed to strengthen its public financial management systems to fight corruption. The restored budget support totalled US\$100 million in 2013/2014, well below the US\$700 million Uganda received in 2006/2007 (European Commission, 2015).

In 2013, after three years of consultations with its development partners including donors and civil society groups, the government adopted the National Partnership Policy. The content of this policy is very similar to that of the Entebbe Partnership Principles adopted in 2003. Its aim was to strengthen cooperation between government actors and DPs and ensure the alignment of DP support with the country's development agenda and its prescribed means of achieving that agenda. An additional forum created by the new policy, the National Partnership Forum (NPF), brings high level government and DP delegates together annually to discuss progress, identify bottlenecks to implementing the NPF, and improve effectiveness in achieving developmental objectives. Between 2014 and 2017, three NPF meetings were

organized under the Office of the Prime Minister, which is now responsible for overseeing policy dialogue between government and DPs.

Overall, Uganda continues to receive considerable aid. In 2015, the country received US\$1.628 billion in aid from 30 donors. Only a small portion (20%) of that aid goes to the government in the form of budget support (World Bank, 2017, GoU, 2012). Close to 70% of aid to Uganda is provided by the World Bank, the African Development Bank, the EU, USAID, the UK, and Norway (GoU, 2013). Forty-six per cent of health financing in Uganda comes from donors (UMOH, 2016). According to the Global Partnership for Effective Development Cooperation (GPEDC) most of the support Uganda received in 2015 (92 %) was in line with the overall development objectives of the government, but only a few of Uganda's development partners (35%) used the country's monitoring systems; 46% used country-led results frameworks; and 55% of development co-operation was recorded in the government budget, a decrease from 96% in 2011 (GPEDC, 2016). According to an MOF official, Uganda's many corruption scandals and the weakness of its government systems dissuade donors from using them (UMOF official 2, personal communication, July 15, 2016). A senior Uganda MOH official said: "If it was my money, I wouldn't channel it through the system of a corrupt government" (Senior UMOH official, July 27, 2016).

In the health sector, particularly in the context of malaria control, Health Development Partners (HDPs) often provide off-budget support to Uganda (Nabyonga-Orem *et al.*, 2014). Off-budget aid (vertical funding) generally uses mechanisms outside government systems with their own reporting processes and structures. The US and UK governments are the biggest bilateral donors supporting malaria control in Uganda. They provide over 80% of Uganda's malaria control financing. Both donors channel resources through non-state actors (DFID, 2013). In some cases, bilateral agencies channel resources through other bilateral agencies, or through multilateral institutions. For example, USAID

and UNICEF are recipients of DFID's UK£ 47 million support for malaria control (DFID, 2016). DFID began to channel its malaria control resources through the PMI and UNICEF after the 2012 corruption scandal involving Uganda's OPM, although other considerations such as value for money, economies of scale (eg. in relation to purchasing nets, and leveraging UNICEF's and PMI's comparative advantage) were also factors in the decision (DFID official, personal communication, July 22, 2016).

Other external actors involved in malaria control, including the African Development Bank, Ireland, WHO, and UNICEF also engage international and local NGOs to implement malaria control activities in Uganda. Although I was not able to ascertain the precise number of international and local Civil Society Organizations¹⁷ (CSOs) currently working in Uganda, I do know that the Malaria and Childhood Illness NGO Secretariat (MACIS) coordinates 450 NGOs, and Community Based Organizations (CBOs) engaged in malaria control and child health activities in Uganda (MACIS, 2015). The main international and local NGOs include Population Service International, Malaria Consortium, Stop Malaria Project, and AMREF. These non-state actors are also involved in other health related activities such as immunization, maternal and child health initiatives, nutrition, tuberculosis, and HIV/AIDS.

Most of the non-state actors participate in the distribution of nets, as well as health education and community advocacy activities. A senior UMOH official asserted that they are only aware of the NGOs that declare their areas of interest through the MOH's Office of the Director General, but that many of the NGOs operate in malaria control without the full knowledge of the NMCP or MOH in terms of how they provide support and the resources they invest in malaria control (Senior UMOH official, July 27, 2016). According to the official, the NGOs who are registered with the MOH are given a letter of consent to get involved in malaria control activities in line with the government's malaria control policies.

¹⁷ CBOs and NGOs are considered as a subset of CSOs.

A local health official, who participated in the Northern Uganda Malaria Outbreak Response Consultative Workshop in July 2016 in Gulu, asked the government and DPs how to handle the more than 250 NGOs in his district, indicating that the government has limited involvement in directing and/or managing all of NGOs involved in malaria control (Uganda district health official 2, personal communication, July 21, 2016).

The main fora for interaction between the government and Health Development Partners (HDPs), including Civil Society Organizations (CSOs), are the National Coordination Committee, the Health Policy Advisory Committee (HPAC), and the Technical Working Groups (TWGs) which bring together state and non-state actors in the health sector. The vice-chair of HPAC represents CSOs. Over 14 main TWGs and thematic sub-technical working groups exist in the health sector. In the context of malaria control, there are formal and informal sub-technical working groups including Integrated Vector Management, Monitoring and Evaluation, Malaria in Pregnancy, Case Management for Diagnosis and Treatment, Behaviour Change Communication, and Partnership. Additionally, the quarterly meeting of the Roll Back Malaria partnership facilitates policy and programme dialogue on malaria control. These fora function as advisory bodies. Recommendations generated through discussions at these fora go to the Permanent Secretary of the MOH to be acted upon by his office, or by other senior officials in the MOH. For example, Uganda updated its guidelines for malaria in pregnancy in 2016 following recommendations from the Malaria in Pregnancy thematic working group informed by the WHO guidelines. Our findings, however, suggest that these fora do not function very well and that some of them (eg. the BCC sub-working group) are nearly inactive. A senior MOH official acknowledged that absenteeism and the absence of mechanisms to enforce action on the outcomes of these meetings have undermined the role of these fora as serious policy dialogue platforms (Senior UMOH official, personal communication, July 15, 2016).

Uganda as a “weak beggar”: Settling for a subordinate role in malaria control

The influence over HDPs wielded by Ugandan government officials and the relationship between the Ugandan government and its HDPs varies, of course, from one actor to another. My findings, however, suggest that most government actors do not see themselves as having the authority to use the existing policy forums or other mechanisms to ensure HDP compliance with government policies and processes. For example, Ugandan government officials noted that PMI funded IRS interventions in Northern Uganda ended in 2014 after Uganda’s MOH failed to convince the donor to continue funding the interventions. Importantly, the IRS stopped without an exit plan, leading to a resurgence of malaria in the North in 2015-2016. There are international guidelines that govern the discontinuation of vector control interventions in malaria endemic countries but they were not followed. In the words of a senior Ugandan official “if someone gets his own money and implements [programmes], how do you have authority over [him]? You can only coordinate. Coordination is just a diplomatic courtesy. You cannot say [no]. It is only in Rwanda which does that. You are a beggar and a weak beggar” (UMOH official, July 15, 2016).

These findings are in line with those of Nabyonga-Orem and colleagues (2014), which suggest a greater influence on the part of donors, particularly Western donors and UN agencies, in malaria control in Uganda. The study by Nabyonga-Orem and colleagues (2014) examined the role of external actors in policy change in malaria treatment and found that actors such as the Global Fund influenced Uganda’s decision to adopt ACTs. Reacting to the influence of the GF, an MOH official noted, “[a]lthough efficacy data showed resistance to chloroquine, we were not yet ready for a treatment change. We would have moved at the right time, but when the GF insisted that GF grants should only be used to buy ACTs, it became difficult to opt for another alternative” (as cited in Nabyonga-Orem et al., 2014, p. 8). The same study found that Uganda often looks to the WHO to make important malaria-

related decisions. It might be difficult to avoid some donor influence given their role in funding and programme implementation, but as a senior WHO official noted, in Uganda, relying on external actors for funding in malaria control often translates into giving in to many of the conditions imposed by external actors (senior WHO official, personal communication, August 29, 2013). The WHO official confirmed that Uganda dropped the idea of using the military to distribute nets after donors challenged it.

In many instances where the Ugandan government objected to the policy prescriptions or recommendations of donors and INGOs, pressure from the same donors and INGOs forced it to give in. In 2009, for example, the Global Fund insisted that the procurement of bed nets be contracted to international private actors. The government objected to this, “arguing instead for single source procurement from local suppliers”, but eventually acquiesced to the Global Fund directive. Similarly, in 2011, the Ugandan government reversed its decision to subsidize anti-malarial medicine through the Affordable Medicines Facility for Malaria (AMFm) after senior international health officials flew to Kampala to pressure the government to that end (Croke, 2012). In 2008, civil society groups and agricultural interest groups led by the Uganda Network on Toxic Free Malaria Control (UNETMAC) fiercely opposed the use of DDT to control malaria in several districts in Northern Uganda, a campaign that led to a political battle when some members of parliament as well as the court supported these groups in their opposition to the use of DDT (Alidina & Paulus, 2009). Although the case was eventually dismissed, farmers and communities in some districts in Northern Uganda continue to refuse to spray their houses with the chemical. A local official who participated in the Northern Uganda Malaria Outbreak Response Consultative Workshop in July 2016 noted that he could not support the use of IRS since his community had rejected the use of chemicals in fighting malaria, suggesting that there are on-going challenges with

enforcing malaria control policies at the local level (Uganda district health official 3, personal communication, July 21, 2016).

Rwanda and its development partners (DPs): Refusing to be ‘lectured’ by DPs

[Rwanda’s] policy independence is coming from the RPF culture and ideology of self-reliance. It is allergic to dependence. They make decisions and ask for help. They are steadfast in that. You don’t decide for them. If you come and tell them what to do, you will not get anywhere. The struggle taught them that at the end of the day, they are on their own because nobody came to help during the struggle. (Uganda and Rwanda country expert, personal communication, July 18, 2017)

The Rwandan state’s interaction with donors, civil society and private actors is influenced by the legacies of war and a strong ideological bias in favour of self-reliance and policy independence to which the ruling elite are committed, and which is deeply embedded in Rwanda’s bureaucratic machine. The perception that the international community (especially aid donors) failed to stop the genocide, and did nothing to prevent or respond to the humanitarian crisis that followed it, is deeply felt in Rwanda, particularly among the political elite and civil servants, including those in the health sector. This reality is also acknowledged by some international development and humanitarian experts. Peter Uvin (1998) argues that while the people who committed the genocide are fully responsible for the crimes they committed and should be held accountable, “the process of development and the international aid given to promote it interacted with the forces of exclusion, inequality, pauperization, racism, and oppression that laid the groundwork for the 1994 genocide” (Uvin, 1998, p. 3). A major study on the humanitarian response following the genocide also concluded that the general failure to adequately recognize the magnitude of the crisis and respond accordingly “shocked” many in the humanitarian world (Buchanan-Smith, 2003). The UN commander in Rwanda during the genocide decried the failure of the UN and the international community, observing that “[we] were entrusted with the role of helping others

taste the fruits of peace. Instead, we watched as the devil took control of paradise on earth and fed on the blood of people we were supposed to protect” (Dallaire, 2009, p.7).

The “collective guilt” the UN commander and others express might have played a role in creating some openness on the part of aid donors to cede more policy space to the new government when the RPF took power in Rwanda. However, it is crucial to note that Rwanda’s ruling party made its intention to carve out ample autonomous policy space very clear to both external donors and internal actors as soon as it took power in Rwanda in the mid-1990s. In 1998 and 1999, Rwanda’s leaders gathered all the country’s political parties, civil society groups, academics, religious leaders, and women and youth advocacy groups together in the village of Urugwiro for a series of national conferences that defined the trajectory of the Rwandan state. Those conferences led to the birth of the Constitution and Vision 2020, both of which emphasize national unity, good governance, and self-reliance, among other things. An expert on Rwanda suggests that through the Urugwiro consultations and debates on the past and future of Rwanda, the state and society reached a consensus on how Rwanda would be governed, which guaranteed the policy space the state needed for development, suggesting that internal coherence is an important pre-requisite to seeking autonomy (Uganda and Rwanda country expert, personal communication, July 18, 2017). Vision 2020 clearly articulated the ways in which the new state would be different from its predecessor in its engagement with donors. For example, it stated that: “rather than develop sound systems themselves [as the RPF intended to do], past governments continued to rely on foreign technical assistance that was both costly, largely indifferent to domestic long term needs and failed to build local capacities” (GoR, p.10). This insistence on developing their own systems and capacities continues to inform Rwanda’s engagement with civil society, the private sector, and external aid donors to this date.

Institutionalizing engagement with development partners in Rwanda

Since the early 2000s, the government has established forums, institutions, systems, and policies through which to engage its development partners. These engagement tools include the annual Development Partners Meeting (DPM) at which high level government officials, development partners including donor representatives, civil society, and private sector actors meet to discuss strategic ‘policy issues’, and the orientation of DPs. At this forum, both the states’ development agenda and the roles of donors, civil society, and the private sector in realizing that agenda are discussed. A second high-level yearly stock-taking platform that facilitates dialogue between the state and its external and internal DPs is the Development Partners’ Retreat (DPR). During the two-day meeting, progress is reviewed and bottlenecks are discussed in order to improve partnerships and the effectiveness of aid donations.

The agenda and themes of the retreat are often identified by the Development Partners Coordination Group (DPCG), a forum that convenes quarterly (it met monthly until 2007). The forum brings together the permanent secretaries of salient government ministries, development partners, civil society and the private sector to exchange views on and ideas for the implementation of the government’s development plan, Economic Development and Poverty Reduction Strategy II (EDPRS II) and Aid Policy. It is also used to discuss coordination between government and DPs, and to assess the effectiveness of all actors in achieving the plans and development policies of the state. Below this structure, there are sectoral working groups including the Health Sector Working Group (HSWG), and beneath these groups are the Technical Working Groups (TWG) including the Disease Prevention and Control TWG which deals with infectious diseases such as malaria.

The HSWG serves as a platform for the Ministry of Health and DPs including donors, civil society and private sector actors involved in the health sector to discuss and debate

issues of importance to the sector. For example, in the November 2016 HSWG meeting, discussion points included the challenges Rwanda faced in tackling maternal and child health problems and the need to finalize the maternal and child health policy. Members of the HSWG and TWGs carry out joint field visits to assess the health situation and monitor the implementation of development and health sector strategies, including the implementation of malaria control policies. It is in HSWG fora that bottlenecks in achieving health sector goals, the divisions of labor between internal and external actors, and the streamlining of donor processes and procedures in line with the government's health policies and plans are worked out.

There are numerous task forces and working groups to facilitate dialogue and debate within the central government, between the central and local governments, and between the government and donors. For example, the Joint Action Development Forum (JADF) is a platform that facilitates discussions on district development strategies and policies between local government and DPs who operate at the district level. The JADF Health Commission (JADF-HC) functions specifically as a forum for coordinating actors in the health sectors and holding them accountable for “financial and programmatic commitments”. According to a local government official, health planning and discussions related to malaria control often take place at the JADF level, suggesting that the JADF-HC is not functional in all districts.

The working modalities of the fora vary depending on the nature of their responsibilities. In the context of malaria control, the frequency of meetings and the level of engagement of TWGs increases when there is a malaria outbreak, and during campaigns to sensitize the public, distribute nets, or spray households in target districts. A Rwanda NGO worker stated that districts organize meetings as necessary (e.g. during malaria outbreaks) and invite whoever they think should have a seat at the table in addition to the formal

structures such as the TWGs (Rwanda NGO worker, personal communication, July 27, 2016).

A common practice in Rwanda is that the NMCP works with specific NGOs and other actors on specific policy issues in specific geographic areas. For example, in 2006 a steering committee composed of the two government ministries and salient technical assistance partners (UNICEF, WHO, French Cooperation, the Rwandan Red Cross, PSI and IntraHealth) was formed to develop a detailed district-level implementation and monitoring plan to include the distribution of LLINs as part of the Measles and Vitamin A Campaign. The campaign was successful partly due to good coordination between the NMCP and these external actors (WHO, 2016).

Reviewing the minutes of the meetings of these fora and conducting interviews with both donor representatives and government officials suggest four key points. First, the number of platforms, the frequency of meetings (government often holds preparatory meetings before it meets with development partners), and their productions (minutes, preparation notes, presentations, option papers) exhibit consistency and discipline within Rwanda's civil service. The fact that some of the interviews for this research were conducted at 7am or 7pm at the request of ministers and civil servants (i.e. before or after a long work day) is also indicative of this discipline among leaders and civil servants in Rwanda.

Second, the state uses these platforms to negotiate with and ensure that development partners rally behind the government's development agenda and that they use in-country systems. The government often seeks consensus on the development trajectory without losing its relative autonomy. In his remarks at the 2008 DPM, the Minister of Finance and Economic Planning declared:

I am sure that there is consensus on what needs to be done to push forward Rwanda's development agenda. I am also sure that our partners know very well where Rwanda has come from and the vision for her

future. It is this consensus and knowledge that will provide us with the foundation on which to build Rwanda's prosperity. (Musoni, 2008, p. 3)

The government's method and its philosophy of negotiation are anchored in the development aid effectiveness principles laid out in the Paris Declaration, the Busan Principles, and the Accra Agenda for Action and supported by the government's own record of delivery. Reminding development partners that Rwanda's engagement with them would be based on these principles, the President of Rwanda declared at the 2006 DPM meeting, "Instead of the 'giver knows all' paradigm, the new global consensus places at the centre stage of development assistance, policy ownership by the receiving country" (Kagame, 2006, p. 2). Echoing the President's sentiment, a minister who participates in DPM and DRT forums argued in his interview that since Rwanda "delivers" and donors care about "delivery", Rwanda wouldn't accept "lecturing" on what to do and how to do it (Rwanda Minister, personal communication, July 27, 2016). The minister asserted that "unless there is [a] hidden agenda - in my view donors should be happy with this country".

Rwanda successfully negotiated the use of in-country systems (i.e. the use of government processes and procedures such as procurement processes and the channeling of funding through government financial management systems) at the ninth biennial DPM, which was held in November 2010, in Kigali. A joint communiqué from this meeting, titled The Kigali Statement of Action (KSA), underlines that Rwanda's country systems are "solid and fit for purpose". A clause in the KSA reads:

Based on solid evidence, including the 2010 Public Expenditure and Financial Accountability (PEFA) assessment, Rwanda's country systems are sufficiently solid and reliable for use by Development Partners funds. Use of country systems and choice of modality in the Rwandan context is thus no longer principally dependant on technical improvements but rather is subject to political decisions and legal constraints by development partners. (GoR and Development Partners, 2010. p. 2)

Since the KSA was adopted there has been improved use of country systems by DPs.

Third, the government actively uses these platforms to solicit inputs into and mobilize

resources for its development agenda. For example, in 2012 the GoR organized joint planning sessions and used the annual DPR to discuss and mobilize resources for the Economic Development and Poverty Reduction Strategy II (EDPRSII). The joint planning retreat helped the government to present studies and surveys such as the Integrated Household Living Survey (EICV3) and the Demographic and Health Survey (DHS4) which inform key pillars of the EDPRSII. Development partners including donors, civil society and private sector actors also expressed their commitment and contributions to ensuring the funding and smooth implementation of the EDPRSII.

Fourth, the government uses these platforms to seek political support for its development narrative and to manage its image and reputation. In October 2006, the government proposed a DPCG meeting to discuss the GoR's position on the World Bank Institute Report, "Governance Matters 2006: Worldwide Governance Indicators". In the meeting the government informed its development partners that the World Bank's report misrepresented the Rwandan record on good governance and corruption and asked for their support 'to change the negative image given by the report' (Development Partners Coordination Group, 2006). Nearly all the development partners supported the government's position, and the World Bank issued a statement that by and large endorsed it (although the statement is not signed and it is not clear if it was issued by the Bank's representatives in Rwanda or if it originated from its headquarters). The state has also used these platforms to access and have a voice in the international policy arena. In 2005, the Rwandan state, with the support of these fora, represented Africa in the Busan negotiations, and played a key role in shaping their outcome, the Busan Partnership for Effective Development. Rwanda also organizes international conferences to reinforce policy independence and to showcase its performance in reducing the burden of diseases such as malaria. In May 2017, for example, Rwanda hosted the 37th meeting of the Global Fund Board. At that meeting, President

Kagame praised the Global Fund for its support of Rwanda based on the state's vision and development agenda, and calling the Fund "flexible" and "effective" in tackling developmental challenges in the world (Kagame, 2017). The RMOH, for its part, posted a message following the meeting in which it characterized the conference as, in part, "an opportunity for the Global Fund to learn about Rwanda's innovative approach to tackling diseases such as malaria". Access to and a voice in the international policy arena helps Rwanda to influence how donors see and treat Rwanda.

Although the preceding discussion and examples show that the Rwandan state is often in the driver's seat in the policy process, it is also clear from the minutes of the DPCG meetings and interviews that development partners use these fora to influence the direction of travel for state building in Rwanda. For example, Rwanda's development partners were heavily involved in the "elaboration[consultative] process" of the EDPRSI (2008-2012) and EDPRSII (2013-2018) and contributed not only to drafting these key documents but also to implementing them. They were also involved in drafting the government's Aid Policy, although some development partners initially raised questions about the need for such policy. Currently, Dr. Jarl Chabot, a consultant with the Dutch firm ETC, is leading the work of developing the Fourth Health Sector Strategic Plan (2018-2023) for Rwanda. A team from the World Health Organization is also involved in the development of this key policy document. Rwandan National Malaria Control Strategies are often developed in collaboration with the major funders of the malaria control program, an example of the role of development partners in public policy development in Rwanda. Another example of donor influence is the inclusion of civil society and private sector actors in many of the fora discussed above. They were invited at the behest of donors, particularly USAID representatives. It seems from the minutes of these meetings that the contributions of civil society and private sector actors is limited compared with the participation of the government and donor representatives. The

role of civil society organizations and their input into the policy-making process in Rwanda is generally limited since the government's attitude to its own population is "you are either with us or against us" (Gready, 2010).

Assessing the performance of development partners in Rwanda

The Rwandan state has established a number of tools to assess the performance of development partners in terms of what can be characterized as the *ends* and *means* of their contribution to rebuilding post-genocide Rwanda. Assessing the performance of development partners on the *ends* of their contribution entails examining whether their involvement contributes to the development agenda of the state as codified in the EDPRSII and in sectoral policies such as the Health Sector Strategy or National Malaria Control Policy. The assessment of the *means* of a contribution entails examining whether or not a partner's involvement is guided by and aligned with government processes and procedures such as the budgeting process and procurement procedures.

The tools the state uses to assess performance include the Official Development Assessment (ODA) and Development Assessment Performance Framework (DAPF). The ODA report has been published annually since 2009 by the Ministry of Finance and Economic Planning and captures the source, volume, and composition of externally mobilized resources, as well as emerging trends in these characteristics. According to the government, ODA reports allow the government to devise resource mobilization and allocation strategies and to gauge its ability to reduce dependency on external resources for development in the long term (RMOF, 2017). According to the 2017 ODA report, the five largest donors of development aid to Rwanda are the World Bank (WB), USA, AfDB, EU, and Global Fund. In 2015/2016 external resources made up 45% (US\$ 984.9 million) of the government's development budget (RMOF, 2017). Close to US\$ 228.1 million of the

externally mobilized development budget for the year 2015/2016 went to the health sector, making it the biggest consumer of externally mobilized resources (RMOF, 2017).

The Donor Performance Assessment Framework (DPAF) is a tool the government uses to assess the quality of support and engagement of the country's development partners. Launched in 2009, the DPAF reviews the performance of bilateral and multilateral donors against a set of established indicators drawn from international and national agreements (RMOF, 2017). These indicators measure the alignment of donor funded programs with Vision 2020 and Millennium Development Goals (now the Sustainable Development Goals), and their "use of national systems and institutions for strengthened ownership, sustainability and reduced transaction costs"¹⁸. The DPAF assessment for the FY 2015/2016 indicates that the alignment of Rwanda's development partner programs with the country's development plans stood at 61-71%, whereas the use of country systems (eg. public financial management systems such as the procurement system) stood at 58-62 %, an improvement from the previous year but still short of the target (RMOF, 2017).

The annual DAPF assessment also covers the dozen or so actors involved in the health sector and malaria control such as USAID, Global Fund, DFID, EU, African Development Bank, World Bank, and Belgian Technical Cooperation. The 2016 DAPF assessment of USAID and the Global Fund, the two main actors in terms of malaria control funding in Rwanda, shows a mixed record in terms of alignment with government policies and procedures. While the interventions of both USAID's PMI and the Global Fund are

¹⁸ Other indicators include "facilitating longer-term planning and implementation through predictable development financing, reduction of transaction costs and strengthening of partnerships through the adoption of harmonized approaches, streamlining delivery at the sector level through effective use of comparative advantage, and budget support provided in a manner that enhances ownership, predictability and reduces transaction costs". There are a few sub-indicators under each indicator that the government measures against to assess the performance of development partners. The data partly comes from the Development Assistance Database (DAD), a government data base that captures project level data as reported by donors and often verified by the government.

aligned with the country's malaria control policies, only the Global Fund uses country systems to fund programs (see table 6). The US government signs private contracts, often with US contractors or international NGOs, to deliver its support to the country. However, as a USAID official noted, all the money is put on the table and the MOH, together with USAID, decides where the money will go.

Table 6: Donor Assessment Framework in Rwanda

INDIVIDUAL DONOR PERFORMANCE ASSESSMENT FRAMEWORK - GLOBAL FUND
Final results from the 2015/2016 round of monitoring as of 26-Jan-17.

Results Area	Indic	FY 12/13 Actual	FY 13/14 Target	FY 13/14 Actual	FY 14/15 Target	FY 14/15 Actual	FY 15/16 Target	FY 15/16 Actual
A. Financing national strategies in support of the MDGs and Vision 2020	A1	Volume of ODA on-budget (RWF)	76,738,565,718		49,794,413,440		83,325,114,069	82,729,282,900
	A1	% ODA recorded in the national budget (PD indicator 3) (ratio inverted where % disb > % budgeted)	98%	85%	53%	85%	101%	68%
	A2	% ODA for GoR sector delivered by GoR agencies	100%	85%	100%	85%	100%	100%
B. Use of national systems and institutions for strengthened ownership, sustainability and reduced transaction costs	B1	% ODA disbursed using GoR budget execution procedures (PD indic 5a)	100%	59%	100%	59%	100%	100%
	B2	% ODA disbursed using GoR auditing procedures (PD indic 5a)	100%	59%	100%	59%	100%	100%
	B3	% ODA disbursed using GoR financial reporting systems (PD indic 5a)	100%	67%	100%	67%	100%	100%
	B4	% ODA disbursed using GoR procurement systems (PD indic 5b)	100%	69%	100%	69%	100%	100%
	B5	% of ODA disbursed that are recorded in the GoR systems		90%	65%	90%	100%	68%

Source: GoR, 2017

It is clear from the table above that Global Fund support was disbursed by the government (see indicator A2 in table 6), suggesting the use of country systems as captured in B sub indicators (e.g. official development assistance disbursed using government budget executive procedures; and use of government procurement systems.) The MOH's Single Project Implementation Unit (SPIU) manages and disburses the money from the Global Fund. In most other countries, including Uganda, the Global Fund uses international entities such as Price Waterhouse Coopers to manage funds for malaria control. Entrusting the Rwandan government with the management of Global Fund money is something that has evolved over

the 2010-2017 period.

In February 2014, the Global Fund piloted a results-based financing model, called National Strategy Financing, selecting Rwanda to be the first country to implement the model. The Ministry of Health's website notes that this new financing model was the result of Rwanda having demonstrated the effective use of aid money for development projects (the \$1.2 billion that the Global Fund granted to Rwanda over a period of 10 years to strengthen its health system and combat malaria, tuberculosis and HIV/AIDS), as well as pressure from the Rwandan government which had long advocated for the flexibility to allow aid recipients to prioritize how they spend funds. The Global Fund states that "Rwanda's robust internal control systems are being applied to oversee the grants, including audits – a strong example of country ownership" (Global Fund, 2017, p. 2). Rwanda has a strong monitoring and fiscal management system that it has made "open to all donors for examination to ensure the transparency of aid" (Logie et al., 2008, p.257). Additionally, the annual EDPRSII Monitoring Matrix, a joint annual assessment conducted by the government and development partners which measures the government's performance against predefined indicators drawn from EDPRSII, including the reduction of child mortality, have helped the government improve its credibility in the eyes of development partners, allowing Rwanda to carve out policy space.

Policing development partners for policy independence in Rwanda

The relationship between Rwanda and its DPs has not, however, been devoid of tension, as the government often takes a hardline position on policy alignment. In the late 1990s, the government expelled over 38 International Non-Governmental Organizations (INGOs) and suspended the operations of a further 18 INGOs due to differences over the government's record on good governance, particularly on upholding human rights (Kumar et

al., 1996). Rwanda has since introduced a strict registration system under the Directorate General of Immigration and Emigration (DGIE) for INGOs that want to operate in Rwanda. DGIE representatives often participate in malaria control conferences in Rwanda's districts and ensure that NGOs involved in malaria control have the necessary permits from the government and that their activities are coordinated with relevant local authorities (DGIE official, personal communication, July 26, 2016).

International NGOs that play a key role in malaria control in the country and interact with the state include Population Services International (PSI) and World Vision. PSI advocates for the use of LLINs. It works through private sector outlets and also supports the public sector distribution of LLINs. Both PSI and World Vision, with the support of the Global Fund, participate in public health education campaigns and the training of community health workers. An international development practitioner with one of the international NGOs involved in malaria control observed that their government counterparts often drive home the message "Rwanda for Rwandans" (Rwanda development partner 2, personal communication, September 16, 2013). The development practitioner also noted that while the interest and involvement of the Rwandan government and MOH in malaria control is "exceptional", there is an element of surveillance or policing present that prevents INGOs from questioning the level of reported success in malaria control, which is sometimes exaggerated.

Policing donors is common practice in Rwanda. One of the development partners reported that Germany withdrew its involvement in Rwanda's health sector in 2013 because the government insisted that it shift its support to other sectors, following its division of labour policy which assigns development partners to specific sectors and does not allow them to work in more than three sectors (Rwanda development partner 2, personal communication, September 16, 2013). A USAID official noted that the relationship between USAID and

Rwanda also became tense in the early 2000s after the government insisted on channeling resources, including funds from PMI, through its own systems. That relationship improved after Rwanda earned the trust of the US government through its fight against corruption and the US government agreed to fund Rwandan government-defined priorities in the health sector (USAID official 2, personal communication, September 17, 2013). The USAID official observed that ownership of the externally mobilized resources, including US resources, led to success in controlling malaria in Rwanda.

It is important to note that development partners have also influenced the Rwandan government to change its position on specific approaches and policies. For example, in 2003 the government was initially reluctant to accept a proposal by donors and NGOs to use Community Health Workers (CHWs) to treat malaria at the community level due to what it perceived as the limited skills of the CHWs. Pressure from USAID, Global Fund, UNICEF and INGOs such as Concern World Wide and IRC led to a change in the government's position and the implementation of the community-based treatment model, first in Kibilizi, Kirehe, and Kibogora, and later on throughout the country (Core, 2006).

Local NGOs that are active in malaria control and with which the Rwandan state interacts include the Rwandan Development Organization (RDO), and the Imbuto Foundation. The Imbuto Foundation participates in the distribution of LLINs through People Living with HIV (PLHI) networks, and RDO is involved with, among other things, behavioural change communication activities to prevent malaria. The government also interacts with civil society groups and community organizations to ensure malaria control policies are implemented. Pro-Femme Twese Hamwe, for example, is an umbrella organization that brings together 48 women's associations that are involved in malaria prevention and control. The Rwanda Governance Board (RGB) is responsible for registering and periodically evaluating not-for-profit organizations (NPOs) including NGOs, Civil

Society Organizations (CSOs), and Community Based Organizations (CBOs). Registration involves an elaborate process that requires NPOs to obtain clearance from the mayor of the district in which the organization will operate, submit an annual action plan for their activities, and, in some cases, sign a memorandum of understanding with the Ministry that leads the sector in which the organization is proposing to work.

In the case of malaria control, NPOs cannot implement malaria control related activities without the knowledge of the NMCP. As an NPO worker noted, the process of engagement involves clearance from the national government and National Malaria Control Program (NMCP) and an introduction by the national authorities to the district administration which in turn links the NPOs sector with village officials (Rwanda NGO worker, personal communication, July 27, 2016). Local health officials in one district in eastern Rwanda acknowledged that they have a list of the NPOs that work on malaria in their district. According to one of the local officials, if an NPO that is involved in malaria control defies the instructions of the local government regarding where to operate and how to implement malaria control activities, it is reported to the Ministry of Health and action is taken against that organization (Rwanda local government official, personal communication, July 26, 2017). A Minister in the government who works with the NPOs defended the registration process and justified the close monitoring of NPOs as fulfilling a national responsibility to hold non-state actors accountable. The Minister argued that good governance cannot be achieved if citizen-based organizations are not held to the standards set by the state and to the laws of the nation.

The state has been even more assertive in disciplining the private sector in relation to its involvement in malaria control policies, particularly private pharmacies involved in selling anti-malaria drugs. The state rigorously enforces Rwanda's guidelines for Pharmacovigilance and the Medicine Information System which were adopted in 2011. By conducting regular

and systematic reviews of the supply chain and the quality of anti-malarial drugs available in the market, Rwanda has ensured that there are no counterfeit anti-malarial drugs on the market (Binagwaho et al., 2013). The NMCP works with private sector actors such as the National Pharmacy Task Force to improve public access to anti-malarial drugs, distributing ACTs through licensed, private pharmacies (PMI, 2009a). In 2016, the government announced that it was seeking private investors to work in a public/private partnership arrangement to produce mosquito nets in Rwanda. Despite this evidence of its openness to work with the private sector, USAID has criticized the government's domination of policy space vis-à-vis the private sector (USAID, 2015).

At the community level, there are two dimensions to the state's engagement in malaria control: behavioural change communication and service delivery, and a policing dimension aimed at enforcing malaria control policies. The Rwanda Health Communication Center (RHCC), the MOH's Community Health Desk, the local government and Community Health Workers (CHWs) directly, or through NGOs, CSOs, and CBOs, educate the public about malaria prevention and treatment through dramas, call centers, outreach programs and campaigns that involve local and national officials, as well as community level platforms such as *Umuganda* and hygiene clubs.¹⁹ An Integrated National Community Health Strategic Plan which was developed in 2013 guides these Behaviour Change Communication (BCC) interventions. According to a local official, health education campaigns work well but community health workers sometimes experience difficulty convincing households to accept indoor residual spraying (Rwanda local government official, personal communication, July 26, 2017). In such cases, local government leaders accompany the CHWs to engage households that refuse malaria prevention interventions and if that does not work, the police commander or officers in the area "convince" the household to "accept" the spraying and

¹⁹ many of the people we interviewed noted IEC materials are distributed at the *Umuganda* gatherings, often after the *Umuganda* activities are completed.

other malaria control interventions (Rwanda local government official, personal communication, July 26, 2017). A police commander in one of the districts equated controlling malaria with maintaining security (Police commander, personal communication, July 26, 2016). The commander argued that when some households refuse to spray their houses, the mosquitos that take shelter in those un-sprayed structures can kill not only the children in those households, but also the children in neighboring households who did spray their houses. The Rwandan state deploys its coercive power in order to ensure that malaria control policies are implemented.

Conclusions

This chapter has examined the interaction between the state and development partners in both Uganda and Rwanda, paying particular attention to interactions in the health sector and in the malaria control arena. It has also contrasted the effectiveness of the two states in their engagement with development partners and their ability to attain or retain autonomy in the face of their dependence on development partners for resources to combat malaria. While the relationship between the state and key development partners, including those involved in health and in malaria control, is largely collegial in both countries, Rwanda has been relatively more effective in maintaining its autonomy in policy processes than has Uganda.

It is clear from the interaction between the state and development partners in malaria control in both countries that neither state is fully autonomous. The intimate involvement of external actors in the malaria control policy process leads, at best, to co-ownership. As an international malaria expert noted, the issue of autonomy has more to do with the policy process, and not the content of malaria control policies, because accepted malaria control interventions are largely prescribed to both development partners and malaria endemic countries. Given the way engagement with development partners evolved in both countries, and the varying degree of policy independence they have enjoyed over different periods, it

can be concluded that autonomy is not static and that there is a tendency to earn more or less autonomy depending on a state's credibility and performance in the eyes of its development partners. That said, in Rwanda, the state remained effective and credible, cementing its earned autonomy, whereas a loss of credibility led to the degeneration of autonomy in Uganda.

In Rwanda, the government has been consistent in its pursuit of policy independence since it took power in 1994, whereas demands for policy independence in Uganda were strong in the early years after the NRM government came to power in 1986, and again between the late 1990s and mid-2000s. While the global political economy context was different when the two governments came to power (1986 for Uganda and 1994 for Rwanda), there does not seem to be a significant temporal dimension to the achievement of state autonomy given the fluctuations in the level of policy independence the two countries experienced in different periods. In contrast, it seems that Uganda's limited policy independence stems from the weakness of the state and state corruption, has affected malaria control efforts. For example, the resurgence of malaria in Northern Uganda as a result of the policy decision by PMI to discontinue IRS in 2015-16, and perhaps also the increased number of cases of malaria in Uganda after the suspension of Global Fund support due to corruption in the mid-2000s, suggest that the policy process is important to success in combatting malaria even when the content of the policy is accepted by all the actors.

In terms of the differing approaches of the two countries in pursuing policy independence, Rwanda, as the analysis shows, sometimes deploys coercive power to obtain greater policy independence than Uganda (for example, the use of security forces in malaria control and the expulsion of NGOs). There is a level of openness and dynamism in Uganda's policy arena where authority within the state is relatively dispersed and less respected due to credibility deficit of the government that prevent the state from maintaining full autonomy in

the realm of development (e.g., the DDT case where civil society organizations and the public challenged the government's efforts to spray houses in the malaria endemic Northern Uganda).

CHAPTER VII

THE WILL TO CONTROL: THE COMMITMENT TO COMBATTING MALARIA IN UGANDA AND RWANDA

Karim and colleagues (2009) attribute the failure of a state to achieve stated public health objectives to a lack of political will. At the individual level, achieving an objective starts with a demonstration of will (Treadway et al., 2005). Measuring political will, however, has remained a challenge. For this research, political will is assumed to be present: (1) when the leaders of Uganda and Rwanda express their will through their speeches and policy declarations, and participate in activities and functions that are aimed at addressing malaria control; (2) when resources are committed to fighting malaria; and (3) when institutions that are critical for the implementation of malaria control policies are created. In this chapter I will argue that the divergence in malaria control outcomes in Uganda and Rwanda are partly due to the presence of political will in Rwanda and its absence in Uganda.

State-centred literature, in particular the developmental state literature which informs this analysis, considers political will at the leadership level an important quality in the effectiveness of the state. In most cases the leadership being referred to in developmental state literature is the head of the government and senior officials who are instrumental in setting and achieving developmental objectives (Leftwich, 1995).

This chapter presents my findings concerning the level of commitment to combatting malaria on the part of the political elites of Uganda and Rwanda. It lays out the challenges faced by, and the achievements of, the two countries in translating their stated commitment to malaria control into effective malaria control policy. The findings compare and contrast the roles played by political executives including presidents, parliamentary health committees, ruling parties, and accountability institutions in shaping both the challenges and achievements in their respective countries. In the first section, we compare the expressions of

commitment which are present in both countries. We will show that the expression of commitment in Uganda is more “lip service” whereas expressions of commitment in Rwanda are indicative of real political commitment. In the second section, we discuss the budgetary commitment of the two countries. It will be shown that while both countries rely heavily on donor funding for malaria control, Rwanda invests slightly more in malaria control than Uganda. In the third section, we discuss institutional commitment in the two countries. It will be argued that Rwanda has been able to create institutions that ensure structures to combat malaria deliver results while in Uganda similar institutions have been created but are not effective in ensuring the structures achieve the stated malaria control objectives.

Words as an expression of commitment, or lip service?

If expressed commitments were enough to control malaria, Uganda would be malaria free. Politicians in Uganda, at both the national and local levels, have expressed their commitment to combat malaria not only to this author, but also to Uganda and the world. Uganda has committed itself to global and regional malaria control initiatives and signed on to resolutions such as the World Health Assembly Resolution on Malaria, and the 2000 Abuja Declaration. Uganda’s president is a member of the African Leaders Malaria Alliance (ALMA). Controlling malaria is also recognized as a top priority in the national development agenda. The ruling party’s 2010 Presidential Manifesto points towards malaria elimination; the second National Development Plan (NDP 2010-2015), and the second National Health Policy (NHP II) position malaria control as key priorities for the health sector (UMOH, 2014).

National leaders in Uganda speak about the severity of the disease and attend functions that are organized to discuss and tackle malaria. On May 10, 2013, President Yoweri Museveni spoke at the launch of a universal coverage campaign mandated to

distribute 21 million nets. He urged everyone to handle the distribution of nets effectively. At the same function, the Minister of Health, Dr Christine Ondo, reminded the audience that malaria kills 100,000 Ugandans per year and urged the nation and its partners to continue fighting the disease with the available and effective malaria control tools. On July 20-21, 2016, six MPs, the Minister of Health, and numerous national and local health officials including the head of the National Malaria Control Program, attended the Gulu workshop responding to malaria outbreaks in Uganda's Northern regions. All expressed the need to fight malaria. The 'stated' level of commitment is so high that the Prime Minister is considering using malaria indicators as the benchmark to assess the performance of the Ministry of Health (Senior MOH official, personal communication, July 15, 2016). A UMOH official argued that "in terms of rhetoric, everyone is concerned" (UMOH official, personal communication, July 15, 2016).

However, some local officials and study participants cast doubt on the commitment of the central government, citing the level of investment in malaria control (Uganda district chairperson, personal communication, July 16, 2017). One participant asserted that if there is one thing that is missing in the fight against malaria, it is that malaria is not a political priority:

if malaria becomes a political priority, it will get the resources, leaders will talk about it, individuals will take it serious[ly], there will be monitoring, there will be resources, accountability, [and] prioritization. The correct policies will also come. If there is some political commitment [to] deal with this thing, it[malaria] will go away. Once the will is there, it will happen. (UMOH official, personal communication, July 15, 2016)

At the sub-national level, leaders – at the rhetorical level- are committed to combatting the disease. The mayor of one of the districts in eastern Uganda, for example, linked fighting malaria to maintaining healthy voters and a healthy population that can contribute to economic growth and pay taxes to government (Uganda mayor, personal communication, July 16, 2016).

In the case of Rwanda, the state has also committed itself to global and regional malaria control initiatives and resolutions. It too is a signatory to the World Health Assembly Resolutions on Malaria, and the 2000 Abuja Declaration. Rwanda's president is also a member of ALMA, the African Leaders Malaria Alliance (Snow and Marsh, 2010). Nationally, controlling malaria is recognized as a top priority in Rwanda's Vision 2020 and in all its Health Sector Strategic Plans (HSSPs) and Health Policies (Ministry of Health, 2012; Ministry of Finance, 2000). For example, Rwanda's 2008 National Community Health Policy recognizes that the burden of malaria "constitutes a major economic burden" (Rwanda Ministry of Health[RMOH], 2008). As in Uganda, national leaders attend functions organized to discuss and tackle the disease. In 2004, for example, President Paul Kagame opened a ceremony to launch the distribution of Long Lasting Insecticide Treated Nets to pregnant women in Nyanza (RMOH, 2008). In 2008, Prime Minister Bernard Makuza attended a ceremony to celebrate the mass distribution of treated nets by volunteer community health workers and gave awards to the best distributors (RMOH, 2008). In 2016, the Minister of Health, Dr. Diane Gashumba, launched an Indoor Residual Spraying (IRS) campaign in Gatsibo and noted "All Rwandans should give the due value to the different interventions the government is putting in the fight against malaria" (RBC, 2016).

It is often said that "unwavering political commitment, from the highest level of the central government throughout the local administration" is responsible for Rwanda's success in malaria control (RMOH, 2008, p.10). The findings of this research suggest that the level of commitment is indeed very high in Rwanda. One malaria expert in Rwanda noted:

In my opinion one of the important factors that contributed to success is political commitment to [the] health of people in Rwanda. So [the] government takes health as a priority development issue. So malaria being one of the killer diseases in tropics, Rwanda government took that as one of the major health issue that affects people so I think the bedrock of this success is driven by political commitment. (Rwanda expert 1, personal communication, July 5, 2016)

The commitment to combat malaria comes from the top leadership of the country, particularly the president (Rwanda academic, personal communication, June 17, 2016). Upon receiving the 2012 African Leaders Malaria Alliance (ALMA) Award, the president of Rwanda told African heads of state that “the efforts recognized today are proof of what can be done with the resources at one’s disposal, relevant policies, and a great deal of commitment” (New Times, 2012, p. 1). Recognizing the level of commitment in Rwanda, the USAID mission director in the country, Marcia Musisi-Nkambwe (2017), wrote “your hard work and unflagging dedication is saving lives and ensuring the health of so many across this wonderful country” (para. 15).

In Rwanda, the expressed commitment is also present at the local level (Rwanda NGO worker, personal communication, July 20, 2016). As one local official acknowledged, a key factor in achieving success in malaria control is commitment at all levels, including the district level (Rwanda local government official, personal communication, July 26, 2016). In 2013 the United States President’s Malaria Initiative acknowledged local level commitment and the achievement of local actors, reporting that, “In Bugesera District in the Eastern Province, the vice-mayor, Narumanzi Leonille, participated in community mobilization activities which led to an increase in IRS acceptance levels. In Nyagatare, the district with the highest malaria burden in Rwanda, the vice-mayor, Musabyimana Charlotte, organized and participated in radio talk shows that urged communities to support IRS, resulting in 99 percent coverage of targeted structures” (PMI, 2013, para. 2). Local leaders have spoken out in response to challenges in the fight against malaria. For example, when Kirehe district experienced an increase in malaria incidence in 2013, the vice mayor, Jacqueline Murekatete, noted “Malaria is really a problem here nowadays. We reported as much to the ministry last month” (Tumwebaze, 2015, para. 14). The expression of commitment in Rwanda carries

weight in the sense that words are translated into action and results in the context of malaria control.

Uganda's and Rwanda's limited budgetary commitments to controlling malaria

Translating expressed commitments into investments in healthcare and malaria control has been a challenge in Uganda, as in Rwanda. There are three main sources of funding for malaria control in Uganda: government spending, individual out-of-pocket payments, and Global Health initiative money. In 2015/2016 the Ugandan government spent 8% of its budget on health care, significantly less than the 15% target set in the Abuja Declaration on health care. Only 2% of its budget was spent on malaria control in 2007/2008. Clearly Uganda relies heavily on donor funding to finance malaria control efforts, as is the case in Rwanda (RMOH, 2009; Zikusooka et al., 2009; USAID & Makerere University School of Public Health, 2010; USAID, 2010). Recent data related to household expenditure on malaria in Uganda is not available, but it is estimated that household out-of-pocket expenses in 2002 equalled approximately \$3.08 per malaria episode (Zikusooka et al., 2009).

Although the lack of financial backing might be a significant factor in the poor implementation of the 1996-2001 Malaria Strategic Plan, the funding landscape changed in the early 2000s with the arrival of Global Fund (MOH, 2011). In 2002, Uganda submitted a successful malaria control proposal requesting \$23 million in funding. A second application for \$150 million in 2004 was also successful, allowing Uganda to finance its 2001-2005 malaria control activities, particularly the procurement of LLINs, ACTs and RDTs. Uganda submitted other successful proposals to the Global Fund for \$125 million, and \$156 million, enabling the country to improve ITN coverage between 2005 and 2015 (MOH, 2011).

Uganda's other main donors are the US President's Malaria Initiative (PMI) and the UK's DFID. US PMI activities were initiated in Uganda in 2005, making Uganda one of the

first three countries to receive funding from the PMI. Between 2005 and 2015 Uganda received \$279.6 million from the PMI.²⁰ Funding from DFID has also been significant, with Uganda receiving \$34 million between 2013 and 2015. Table 7 shows recent figures from the three largest donors.

Table 7: External Sources of Financing for Malaria Control

Year	Global Fund	PMI	DFID	Total
2011	\$66,229,429	\$34,930,000		\$101,159,429
2012	\$33,731,526	\$33,500,000		\$67,231,526
2013	\$20,146,401	\$33,781,000	\$4,900,000	\$58,827,401
Total	\$120,107,356	\$102,211,000	\$4,900,000	\$227,218,356

Source: UMOH, 2016

Despite the considerable funds Uganda receives from donors, a significant gap remains in malaria funding. For example, the funding required for the 2010-2015 Malaria Strategic Plan was \$887.5 million, far more than the country received. Uganda has not been able to fill the gap using domestic resources, leaving a significant number of people without access to publicly provided malaria control services. The government has been under pressure to invest in malaria control and the allocation of resources to Malaria, HIV/AIDS and TB has jumped from zero before 2011 to approximately \$30 million per year since 2011, showing an improved budgetary commitment (UMOF official 1, personal communication, July 19, 2016). The official admitted that in the long term, depending on external resources to control malaria is not sustainable. Dependency on external funding for malaria control also poses other challenges including rigidity in programming, funding delays, and unreliability since funding can be cut off without notice (UMOF official 1, personal communication, July 19, 2016).

²⁰ Data compiled by the author from various PMI reports

Comparatively, Rwanda invests slightly more in malaria control than Uganda. Government contributions to controlling malaria have been particularly significant during malaria outbreaks (Rwanda development partner, personal communication, July 20, 2016). For example, responding to malaria outbreaks in the eastern region in February of 2016, the Rwandan government funded the spraying of all structures (houses) in three districts, while the PMI supported two of the districts in the affected area (Rwanda development partner, personal communication, July 20, 2016). The government has committed to contribute a further \$1 million to support IRS in 2017 (PMI, 2016). Given that IRS is a very expensive undertaking, this pledge is evidence of the government's strong commitment. The Rwandan government also contributes to purchasing nets and anti-malaria drugs, but aggregate data on its contributions to purchasing individual malaria control commodities is not available. During the 2014-2015 period the government contributed about 14% of the resources spent on controlling malaria while PMI and Global Fund contributed the remaining 86% (see table 8).

Table 8: Rwanda Malaria Funding Sources, 2014-2015

Funding	Budget Planned (USD)	Share as % of budget
GLOBAL FUND SSF MALARIA	4,014,473	13%
GLOBAL FUND RBF MALARIA	4,065,806	14%
PMI	17,500,000	59%
GOR	4,248,633	14%
Grand Total	29,828,912	100%

Source: PMI. 2017

Even given significant government support, as shown in the above table, resources for malaria control in Rwanda come mostly from external sources. RBM, WHO, UNICEF, the World Bank, and the UK's DFID all provide some funding for malaria control, while the Global Fund and PMI, as shown in the above table, are the main funders of Rwanda's malaria

control program. Between 2006 and 2016, the Global Fund provided an estimated \$259 million (Global Fund, 2018). Global Fund grants support the expansion of integrated community case management with RDTs, and the procurement of malaria control commodities, antimalarial drugs, monitoring and evaluation systems, and program management operating costs. The PMI, which got involved in malaria control activities in 2006, provided over \$163 million between 2006 and 2015 (PMI, 2016). Most of the PMI funds have been allocated to providing ITNs, indoor residual spraying and diagnostics (PMI, 2016).

Health sector expenditure data indicates that the bulk of external funding to the health sector goes to HIV/AIDS (42%) and malaria (13%), indicating Rwanda's heavy reliance on donor funding for malaria control (WHO, 2009). Rwanda is not as resource rich as its neighbours and is still recovering from the genocide so most state resources go to rebuilding other important state structures, systems, and infrastructure (Rwanda expert 1, personal communication, June 17, 2016). The expert observed that the government had probably shifted its own resources away from malaria, HIV/AIDS, and TB since resources from external actors were available to tackle these diseases. Government would likely step in to fill the financial gap if the resources available from external actors were to decrease substantially (Rwanda expert 1, personal communication, June 17, 2016).

The Global Fund has a co-financing requirement that "encourages national governments to fulfill their financial commitments to the health sector in line with recognized international declarations and national strategies", but there is no clear plan to help low income and low revenue generating countries transition away from Global Fund financing. In 2015, Rwanda updated its health financing sustainability plan, recognizing the need to finance its own health care system and wean itself from externally mobilized resources. That said, Rwanda's health budget increased from 8.2% of GDP in 2005 to 15.5% in 2013,

surpassing the Abuja commitments (RMOH, 2015). The government also established Community-Based Health Insurance (CBHI), a key financing mechanism to achieve universal health coverage and respond to health priorities including malaria, although the scope of coverage has been fluctuating (RMOH, 2015).

Locking in commitments to control malaria in Uganda and Rwanda

Institutional commitment refers to the political will to set up structures that are needed to develop a response to a policy problem, malaria in our case. There are two dimensions to such institutional policy response. The first dimension is to create structures that develop and implement malaria control policies. The second dimension is to create institutions that ensure those structures deliver results. In this section we will show that while both countries have created structures that develop and implement malaria control policies, the institutions that ensure the effectiveness of those structures are effective in Rwanda and are relatively ineffective in Uganda largely due to the presence of political will in Rwanda and its absence in Uganda.

The challenge of enforcing commitments: Reporting without consequences in Uganda

As in Rwanda, the institutional commitment to controlling malaria in Uganda stems from the Constitution that was passed in 1995, which mentions “health” some 30 times, and gives the state the authority “to build a healthy state” and “to ensure the provision of basic medical services to the population”. At the national level, the Uganda Ministry of Health (UMOH), is mandated to formulate health policy, mobilize resources, set standards and assure quality, provide technical support to local level structures, and monitor and evaluate service delivery. Within the MOH, the National Malaria Control Program is responsible for providing guidance for the implementation of the national malaria control policies.

The Ugandan health system is decentralized with District Health Teams (DHT) playing a key role in the delivery and management of health services at the district and sub-

district levels. DHTs are supervised and monitored by the District Health Officer, who represents the MOH at the district level and oversees the implementation of MOH policies, including malaria control policies. DHTs are, in turn, responsible for the supervision of Village Health Teams (VHTs). VHTs serve as front line volunteer health workers and are responsible for community case management of the most common childhood illnesses, including malaria, pneumonia, and diarrhea among children under five. These institutions are tasked with translating the commitments expressed in various policy documents into results such as reducing the burden of malaria. As will be discussed later, these structures are largely similar to Rwanda's structures. While the effectiveness of these structures has been discussed elsewhere, this section mainly presents my findings on the institutions and frameworks Uganda created and their performance in ensuring effectiveness of those structures created to combat malaria. Here, we will discuss the performance of the Budget Monitoring and Accountability Unit; the Anti-corruption agency; the Presidency's Health Monitoring Unit; the Parliamentary health committee; and the ruling party. This section will show that the Ugandan government has found ensuring that these institutions deliver to be a challenge.

In 2008 the government established a Budget Monitoring and Accountability Unit within the Ministry of Finance to address the poor quality of service delivery in the health sector (and elsewhere) and improve the performance of public institutions (Kakande & Sharma, 2012). The unit oversaw the implementation of performance-based contracts between the Ministry of Finance and the spending agencies including health agencies. It had the prerogative to withhold money when spending agencies failed to perform as per the agreed-upon contract (Kakande & Sharma, 2012). This punitive measure was changed in 2011 when the president directed the Ministry to punish the accountants of spending agencies, rather than cancel the agency's funding (Kakande & Sharma, 2012). An official in the Ministry of Finance explained the move in this way:

...if I [withhold] money for immunization, what does it mean? If I [withhold] money for net distribution, what does it mean? If say I won't give [money] to district A [because they failed to perform] but I [release money] to B and C, who are B and C, in this context? It doesn't make real economic sense. In the long run and socially it will just mean that you are denying a particular community a service, it is not their fault. It is the management's fault. So the president was against [withholding] money. (UMOF official 1, personal communication, July 19, 2016).

Like Rwanda, Uganda has a National Anti-Corruption Strategy aimed at holding public service organizations accountable, but no-one at the highest levels of government is committed to enforcing the anti-corruption strategy. A senior official with the Ugandan Ministry of Finance argued that Uganda's accountability systems and institutions, such as the auditor general and the anti-corruption institution do not function well because Uganda lacks 'strong political will' (UMOF official 2, personal communication, July 15, 2016). The official reported that commitment is not present at the highest level, because even the president moves ministers accused of corruption to another docket instead of supporting institutions to hold them accountable. According to Omaswa and Boufford (2010), holding public health leaders and officials accountable has not been a priority for Uganda's executive leadership. These authors argue that the appointment of Ministers of Health between 2001 and 2005 was in fact based on patronage, undermining the effectiveness of the Ministry. During that period, Ministers of Health were implicated in the Global Fund scandal involving the misuse of Global Fund money for HIV/AIDS, TB and malaria, leading to the suspension of Global Fund support.

During the hearing related to that scandal, Justice Ogoola "repeatedly uncovered expenditures that he identified were related to political mobilization, including towards winning a referendum in 2005 and Museveni's campaign to eliminate presidential term limits" (Katusiimeh and Kangave, 2015, p.13). Currently, the Permanent Secretary of the MOH is facing criminal charges laid by the Director of Public Prosecution (Katusiimeh & Kangave, 2015). This egregious political misconduct had an impact on malaria control

activities and the health system, among which was the loss of competent professionals within the Ministry to other lucrative opportunities (Croke, 2012; Katusiimeh & Kangave, 2015). A UMOH official observed that there are no consequences for failure to perform in Uganda, declaring:

there is reporting about failure of public institutions and officials in performing their duties but there [are] no consequences. You see, accountability could have been there if a mayor who is a local leader could be fired, [a] health officer could be fired, a program manager could be fired and a manager could be fired so [in Uganda] there [are] no consequences, in Rwanda there [are] consequences. (UMOH official, personal communication, July 15, 2016)

The official suggested that the problem is that while a system to hold officials and civil servants accountable is there, it does not function: so health workers don't show up for work and nothing happens to them because such issues are not openly discussed in the country; and even if they are discussed, corrective action is not taken. The UMOH, for example, has been publishing annual health sector performance reports since 2000, and the Uganda District League Table (DLT) which assesses and compares the performance of districts has existed since 2003. According to the UMOH, "the DLT is not meant to embarrass local government leaders of poorly performing districts, but rather to make them question why their district is performing poorly, and consider ways in which that performance can improve" (UMOH, 2015, p. 34).

The president also established a Health Monitoring Unit (HMU) whose goal is to "monitor and support an efficient, responsive and accountable national healthcare system" (HMU, 2018). The unit carries out covert monitoring and investigates cases of theft and absenteeism. It also oversees the construction of health facilities, among other functions. However, our findings show that the overall impact of the HMU has been minimal, partly because public health leaders and many politicians do not collaborate with the unit. For example, in April 2016, when the head of the HMU, Dr Diana Atwine, appeared before the Parliament's Health Committee to report that there is lack of accountability in the health

system, the permanent secretary of the Ministry of Health, Dr Asuman Lukwago, dismissed her remarks as “populist” (Mugerwa, 2016).

The Ugandan parliament is also mandated to play a direct oversight role in ensuring the Executive meets its health and malaria control commitments. In June 2012, the parliament created a new health committee,²¹ citing poor health service delivery in the country as its rationale. The committee’s 2012/2013 report criticized the UMOH for its “failure...to implement even clearly workable health interventions” to prevent infectious diseases such as malaria (Uganda Parliament, 2014). The report also points to malaria as a major public health problem, responsible for 70,000 to 100,000 deaths every year. In that report, the committee recommended prioritizing IRS in order to eradicate malaria, and called on the health sector to perform better.

During a consultative stakeholder workshop responding to the malaria outbreak in Northern Uganda in 2016, six of the participating MPs made clear their frustration with how malaria is fought in Uganda. One MP lamented “why would we in this era talk about anti-malaria drug stock outs when the National Medical Store claims there are enough drugs in their stores” (Uganda MP 1, personal communication, July 21, 2016); another MP said “we want the UMOH to present a plan to eradicate malaria, not a plan to control it. Ministry of Health [officials], wake up” (Uganda MP 2, personal communication, July 21, 2016); a third posed a question to the UMOH officials: “It was stated in the UMOH’s report that Kitgum Hospital was rehabilitated when it was not. Where did the money go since the hospital was not rehabilitated?” (Uganda MP3, personal communication, July 21, 2016). According to the MPs interviewed for this study, Parliament’s oversight role includes scrutinizing policy statements, conducting field work at the constituency level, engaging district officials, and

²¹ Previously the social service committee was responsible for both health and education

acting upon the auditor general's report, but our findings suggest that in most cases accountability measures are not enforced.

Uganda's ruling party, the National Resistance Movement (NRM), sees government programmes as party programmes and often urges NRM officials at different levels to monitor programme implementation and hold officials accountable (NRM, 2010). The theme of the July 2016 party leadership retreat was "socio-economic transformation". At that gathering, party officials were urged to strengthen accountability (NRM, 2010). One of the resolutions that came out of the retreat focused on fighting corruption and contained 10 policy recommendations, including enforcing the government's zero tolerance for corruption policy (NRM, 2010). It was reported in the press that the President, frustrated by the lack of accountability, proposed that the Minister of Security take over the fight against corruption (Teso Anticorruption Coalition, n.d). In 2013, the president suggested that the army distribute treated nets in order to prevent theft and gave it the authority to prosecute the theft of nets under the army's operational code of conduct. Four years forward, this statement released by the Uganda State House (April 2017) shows the frustration of the NRM leader (i.e. the president):

From the beginning, NRM has been fighting corruption. Some things we did quickly because they could be seen. There used to be roadblocks by the army to rob people, we removed them. The theft that remained is with the educated people. ... We first trusted them...Amin's government had some illiterate people and when we came in we thought the educated in civil service know what to do but they are the problem. (Uganda State House, 2017, para. 5)

The president's remarks show frustration at the highest level, but given that action is rarely taken against corrupt officials, these expressions are largely rhetorical. According to one expert on Ugandan and Rwandan politics, the major difference between the RPF and NRM is that RPF is busy with development whereas NRM is busy with power games (Uganda and Rwanda country expert,

personal communication, July 18, 2017). The expert argued that NRM is preoccupied with ruling and keeping the opposition at bay, whereas RPF and other parties in parliament are in agreement about developing the country and enforcing commitments. It is possible that this is partly due to the fact that authoritarianism is relatively stronger in Rwanda than Uganda and therefore RPF has the space to focus on program implementation. Some have also argued that the RPF and the government, and by extension the Tutsi political leaders including the president, drive their legitimacy through performance in development (Goodfellow, 2012). However, the performance-legitimacy nexus cannot fully explain the RPF's commitment to development given that there is also a sense of public duty among the civil servants for making Rwanda a developmental state. My findings corroborate the suggestion that accountability-related resolutions, statements, and party policies are rarely enforced in Uganda.

Rwanda: Institutional commitments to controlling malaria

Rwanda's institutional commitment to controlling malaria stems from its post-genocide Constitution which stipulates that the "state has the duty of mobilizing the population for activities aimed at promoting good health and to assist in the implementation of these activities" (GoU, 2003, p.6). To fulfill this duty, the Rwandan government set up structures and institutions to promote good health, including basic structures for controlling malaria. At the national level, the Rwandan Ministry of Health (RMOH) is mandated to provide leadership to the health sector so that universal access to affordable and quality health services is achieved, and the health status of the population is improved. Within the Ministry, coordination of all malaria related activities is led by the National Malaria Control Programme. The NMCP, a division of the MOH's Rwanda Biomedical Centre, is responsible for prevention, vector control and case management for malaria. The division has 36

permanent and contractual staff who are responsible for leading and monitoring the implementation of malaria control interventions in the country.

Public health interventions, including those related to malaria, are delivered by public, private and faith-based agencies or NGOs through a decentralized health care system consisting of community health agencies, health posts, health centers, district and referral hospitals (PMI, 2015). These institutions are mandated to translate commitments expressed in various policy documents (see above) into measurable results, such as reducing the burden of malaria. Outside the health system, various ministries and institutions including the Ministries of Local Government, Infrastructure, and Agriculture, as well as district governments, the military and the police are directly or indirectly involved in malaria control. In relation to malaria control, “the government ensures that everything that has been agreed upon actually happens” (Rwanda development partner, personal communication, July 20, 2016).

In this section we show that Rwanda’s institutions, and the instruments created to ensure the effectiveness of state structures, function better than similar institutions in Uganda. The instruments the government deploys to ensure “agreed upon things actually happen” (i.e. institutions deliver) fall into two main categories: instruments that incentivize politicians and civil servants to achieve health and malaria control objectives, and instruments that discourage politicians and civil servants from behaving in a manner that undermines the state’s health and malaria objectives. Simply stated, these instruments ensure accountability. These instruments and institutions include the *Imihigo*, performance contract between the president and the mayors; performance-based financing in the health sector; the National Consultation Forum and National Leadership Retreats; Anti-corruption instruments; Parliamentary committees; and the ruling party. We will presently discuss how these institutions and instruments are deployed to ensure malaria control structures achieve stated

objectives. It will also be shown that the top leadership, particularly the president, play an important role in ensuring the effectiveness of these instruments and institutions.

One of the innovative accountability frameworks deployed by the Rwandan government as part of its reforms to improve public sector performance in the early 2000s is a performance contract between the president and district mayors, known as *Imihigo*. The signatories agree to achieve national development targets, including malaria control targets, that have been collectively defined and endorsed by national and local governments (Rwanda Minister, personal communication, July 27, 2016).

Imihigo is a Rwandan tradition whereby a community leader would publicly vow to deliver a particular good to the community and be held accountable for his commitment. In practice, the *Imihigo* planning process involves consultations between the central government, the local government, and citizens to ensure that targets are based on people-centered government priorities as codified in national and local development policies (Rwanda Minister, personal communication, July 27, 2016). Once the planning process is finalized and the *Imihigo* are signed, implementation starts, and officials are held accountable for their commitments through regular reporting to and follow up by the president (Rwanda Minister, personal communication, July 27, 2016). *Imihigo* contracts are also signed by all officials and civil servants. Some scholars have suggested that *Imihigo* and other traditional institutions such as *Umuganda*²² are intrusive, if not coercive, tools that put pressure on employees and people and facilitate state control over society (Purdekova, 2011; Mann & Berry, 2016) while others argue they are instruments that ensure the achievement of developmental objectives (Booth & Golooba-Mutebi, 2012). Our findings suggest that these mechanisms have been instrumental in achieving malaria control policy objectives. The performance contract is applied to all policy areas. Paul Kagame (2017), reacting to

²² *Umuganda* is an old tradition in Rwanda the state institutionalized where people come together to achieve a common objective such as cleaning streets and neighborhoods on the last Saturday of every month

allegations that these instruments are intrusive and reveal the authoritarian nature of the state asserts: “Some call our clean cities the result of dictatorship. This shows the disdain they have for Africans. They believe Africans and Rwandans deserve to live in dirty cities. It is this mentality they apply to our politics” (para. 9).

Rwanda initiated a performance-based financing model (*‘l’Approche Contractuelle’*) in 2006 to incentivise health workers and service providers to perform well. Under the performance-based model, health workers and health service providers are paid according to pre-specified outcomes that are measurable in quantity and quality (Meessen et al., 2011). Although some have criticised the model for being efficiency and not health oriented (Ireland et al., 2011) it can be argued that the approach has improved the government’s responsiveness to public health needs. According to Rusa and associates (2009), the performance-based financing model “was made possible by Rwanda’s commitment to good governance, essential to the performance-based approach, as evidenced by policies aimed at increasing accountability and enhancing the effectiveness of service delivery, such as the streamlining of central public sector ministries” (p.192). Malaria experts have also reported that community health workers, who are volunteers, also get some incentives such as bicycles, certificates of appreciation from the top leaders, some funding for their cooperatives, or “well-deserved privileges since they make up the backbone of the health workforce that fights malaria” (Rwanda expert1, personal communication, June 17, 2016).

My findings suggest that, although incentives may be important, a shared sense of accomplishment has also been crucial to achieving malaria control objectives in Rwanda. Most officials and civil servants pointed to the legacy of the genocide and the urge to do things differently. “Look at our history” was a commonly provided answer for the sources of commitment. A minister argued “everyone in Rwanda wants change” (Rwanda Minister, personal communication, July 27, 2016). The Minister asserted that the top leadership

inspired civil servants and citizens to “think positively” and believe in the nation’s ability to achieve everything including wiping malaria from the map. The same official argued that Rwanda is in a “hurry” to lift its people out of poverty, adding that the inspiration comes from the top leadership, particularly the presidency.

The presidency is also involved in monitoring the performance of politicians and civil servants at all levels through the National *Umushyikirano* Council (NUC) and National Leadership Retreat (NLR) (Rwanda presidency official, personal communication, September 19, 2013). The NUC began in 2003 as stipulated in the Constitution. It is a national dialogue forum, broadcast live, that brings together 1000 government officials from all levels, members of parliament, representatives of the judiciary, members of the security forces, local agents, citizens, diplomats and international NGOs to debate issues that shape the national development agenda. In this forum citizens participate in the informal evaluation of government officials up to and including ministers and mayors and critique their performance (Foreign diplomat, personal communication, September 20, 2013). According to an official in the presidency “the president meets government officials and citizens at the parliament and issues are discussed and solutions are found” (Rwanda presidency official, personal communication, September 19, 2013). In the 13th NUC in 2015, for example, citizens asked the government why there was an increase of malaria incidence in some parts of the country and the Minister of Health had to offer an explanation to the citizens and the president (Niyitegeka, 2015).

The NLR is also a forum that brings together national leaders (and more recently members from the private sector and civil society) to discuss progress in and challenges to achieving developmental goals (Rwanda presidency official, personal communication, September 19, 2013). The discussion focuses on “priority issues and identifies issues that are stopping us from achieving development goals” (Rwanda presidency official, personal

communication, September 19, 2013). For example, a resolution of the 12th NLR, which was held in 2015, included the following actions:

Review the health care system, the cost of medical services and harmonize the cooperation of hospitals and health insurance companies; increase efforts in malaria prevention activities especially in the distribution of mosquito bed nets and drugs, clearing bushes around households, spraying anti mosquito insecticides, and studying the feasibility of bed nets factory in Rwanda; and Initiate legal procedures against officials involved in embezzlement and misappropriation of funds meant to be used for programmes improving citizens' welfare, notably the Vision 2020 Umurenge Programme (VUP), Ubudehe, Girinka, FARG and in the health care system. (GoR, 2012, para. 4)

These forums are complemented with regular updates from the Ministry of Health, the office of the Prime Minister, and Presidential visits to areas affected by public health issues (Rwanda presidency official, personal communication, September 19, 2013). The President also summons officials when necessary. When there was an increase in malaria cases, for example, the President directly summoned the head of the National Malaria Control Program to explain the matter and discuss the way forward (Rwanda presidency official, personal communication, September 19, 2013). The official in the presidency proclaimed "What we have is a leader that understands what we need to achieve. You promise and deliver. It creates ownership [because] people see that the government delivers and there is accountability" (Rwanda presidency official, personal communication, September 19, 2013).

Additionally, Rwanda's zero-tolerance for corruption has strengthened government effectiveness in enforcing policies in all sectors and at all levels as corrupt officials are prosecuted.²³ In Rwanda, the stolen drugs and disappearing nets seen in other African countries are not tolerated (WHO official, personal communication, August 29, 2013). In

²³ see Booth and Golooba-Mutebi, 2012, and transparency international's 2016 corruption perceptions index which places Rwanda the 3rd least corrupt country in Sub-Saharan Africa.

2012, Rwanda developed a National Anti-Corruption Policy whose goal was to “achieve good governance by preventing and fighting corruption”. The institutional frameworks (e.g. the Auditor General, Public Procurement Authority and National Public Prosecution Authority) as well as legal frameworks (e.g. law on public procurement, law on state finance, and law on prevention, suppression, and punishment of corruption and related offenses) that are necessary to enforce this policy are also in place. In June 2016, for example, the cabinet expelled the head of the National Malaria Control Program, Dr. Corine Karema, and other officials from the civil service “due to their gross misconduct” (GoR, 2016).

The Parliament of Rwanda also plays a strong oversight role in ensuring that developmental goals, including malaria control objectives, are realized by making sure that the executive takes the necessary accountability measures (Uganda and Rwanda country expert, personal communication, July 18, 2017). In the health sector, the Parliament’s Standing Committee on Social Affairs is responsible for this oversight function, but members of Parliament also regularly visit communities, investigate what the government is doing, and report back to the parliament. In April 2015, Parliament summoned the then Minister of Health, Dr. Agnes Binagwaho, and interrogated her about the increase in malaria cases as well as other health-related topics. At the end of the session, the parliament posted a statement titled “MPs were not satisfied by Minister of Health’s explanation”. Within three months the Minister had lost her job, although it is hard to formally link her dismissal with the Minister’s performance in controlling malaria (Rwanda Parliament, 2015). It was reported in the press that the Minister was fired for corruption-related charges and sub-optimal mosquito nets purchased by the government (East African, 2016). A Rwanda expert asserts that: “things are examined on their merits in the Parliament and appearing before committees is not something Ministers in Rwanda look forward to” (Uganda and Rwanda country expert, personal communication, July 18, 2017).

The ruling party, the Rwanda Patriotic Front (RPF), also plays an important role in ensuring that political commitments at the national level are implemented at the village level, and that health policies are enforced through local officials who are members of the RPF (Uganda and Rwanda country expert, personal communication, July 18, 2017). An expert on the party and the country's politics suggests that the party's motivation to get involved in improving health stems from its commitment to social service (Uganda and Rwanda country expert, personal communication, July 18, 2017). The party also maintains robust performance monitoring and reporting systems overseen by party commissioners (Uganda and Rwanda country expert, personal communication, July 18, 2017). The social sector commissioner, for example, is responsible for health and education and serves as a sort of shadow minister of health and education. The commissioner summons officials who fail to perform since most of the senior government officials are members of the ruling party. A party expert told me that when the cabinet expelled the former head of the National Malaria Control Program from the civil service, she also lost her affiliation with RPF (RPF expert, personal communication, July, 20, 2016). Data on RPF membership in the civil service and how the party assesses the performance of its members in the civil service is not publicly available so it is hard to assess the role of the RPF in enforcing commitments specifically related to malaria control. The party's manifesto 2012-2017, however, states that it has played a key role in sensitising communities to malaria and its control, taking credit for affordable nets, and the spraying of all homes, which seems unlikely since IRS is implemented only in limited high burden districts.

Conclusions

This chapter discussed the levels of commitment to combatting malaria in Uganda and Rwanda. Three key dimensions of commitment were examined: the expressions of commitment by national and local leaders through verbal and written policy declarations; the

translation of verbal and written policy declarations into investments (resources) into malaria control; and the creation of structures and institutions that ensure malaria control policies are enforced. I would also argue that the Rwandan state is also better able to mobilize and manage the resources that it has at its disposal. A key conclusion that can be drawn from the preceding comparative analysis is that in Rwanda, the creation of structures to support combatting malaria, and multi-level accountability mechanisms to ensure that these structures deliver well-defined results, has given meaning to the verbal and written policy declarations of the Rwandan leadership at the national and local levels. Commitment to malaria control is carried through from the national to the local level and good performance is incentivized as a guiding idea (road map) throughout the bureaucracy.

In contrast, our analysis shows that various actors within the Ugandan government (legislative and executive officials at both the national and local levels) are less serious about enforcing malaria control policies, revealing the absence of a shared commitment to tackle malaria. Additionally, the Ugandan state has not been consistent or effective in ensuring that structures created to combat malaria actually deliver stated policy objectives. Existing accountability measures are rarely implemented, suggesting that, as Uganda's former malaria control program manager, the late Dr. Albert Peter Okui, once said, "Malaria kills the children of the poor so the political elite is yet to prioritize controlling malaria in Uganda" (former UMOH official, July 19, 2013).

While both Uganda and Rwanda rely heavily on external donors to fund malaria control initiatives, as discussed above, the remarkable difference between the two countries is that Rwanda's political elite have deftly taken ownership of these investments (discussed further in the next chapter), whereas many Ugandan officials consider the externally mobilized resources for malaria control to be someone else's money. The next chapter elaborates on the interaction between donor agencies and organizations and the two states,

considering specifically the management of donor resources and the impact of this reality on controlling malaria.

CHAPTER VIII

CONCLUSION

State effectiveness and malaria control in Uganda and Rwanda

Malaria is a stubborn disease, slow to kill, quick to incapacitate and hard to cure. All through human history, in times of peace as in times of war, it has taken its steady toll of human life. Against this persistent affliction, many of the best minds in public health and in medicine have, during the past few decades, been forging increasingly effective weapons. Not a year passes without some improvement in techniques or tactics against what has been termed the greatest single threat to human health. (Fosdick 1946)

New malaria medicine shows promise. (New Telegraph, 2018)

Although 72 years apart, the two quotes above are both optimistic about controlling malaria through advancements in biomedical science. There was reason to believe that the “best minds in public health and medicine” would prevail: from the discovery of DDT in the 20th century, to recent progress in combination drugs, investments in biomedical science and public health have yielded notable results, including the eradication of malaria in the Western hemisphere. For many actors, combatting malaria is, therefore, straightforward: use malaria control tools and the drugs that have proven to be effective (Fosmidomycin and Piperaquine, for example, achieved a 100% cure rate in 2018 trials). It seems equally straightforward, in the words of John Bridgeland, the chief executive officer of the Malaria No More Campaign, that the privileged populations of the US and other developed countries should “step forward, make a contribution, buy a bed net, and directly save a life” in the poor, malaria-endemic countries of Africa (United States White House, 2006).

However, despite progress in the realm of biomedical science, and increasing global investment in malaria control (from \$100 million per annum in 1998 to \$1 billion per annum in 2008) (Epstein, 2011), malaria continues to kill between 500,000 and one million people every year. The findings of this research clearly demonstrate that technical solutions and donations by charitable individuals and entities are not enough to combat malaria. The Uganda and Rwanda case studies show that the nature of politics and the level of

commitment on the part of political leadership is a key determinant of success in malaria control efforts. These two cases provide insights into the impact of politics on state effectiveness in combatting malaria.

The concluding chapter is divided into four sections. The first presents a summary of our findings. Drawing on the conceptual framework “state effectiveness”, this section synthesizes the various issues raised in the literature review and empirical findings chapters in relation to malaria control in Uganda and Rwanda. This helps us to answer the research question at hand: Given that Rwanda and Uganda have adopted similar malaria control policies, why are there divergent outcomes with regard to malaria-related hospital admission and death rates? The second section considers the conceptual implications of our research. The third looks at its policy implications. The final section highlights unaddressed questions and suggests avenues for further research.

Beyond health systems: the political base for combatting malaria

Advancement in biomedical science and epidemiology are strongly correlated with improvements in life expectancy and child health in many parts of the world, leading to the commonplace notion that medical solutions to public health problems such as malaria will necessarily result in improved health outcomes. This dissertation argues that, contrary to this widely held assumption, medical and public health solutions do not lead to improvements in health outcomes, particularly malaria control outcomes, without a political base to translate those solutions into actions. A political base exists, as demonstrated in the case of Rwanda, when there is political will at the leadership level, up to and including the head of the government, to address the health needs of the populace, and when this political will is supported by institutional infrastructure that can deliver on the leadership’s commitment. Positive health outcomes are only assured when political institutions and the structures

created to translate technical health solutions into realities work in tandem to rally reluctant internal and external actors behind the stated health objectives. While a political base for controlling malaria existed in Rwanda for the 2000-2017 period, it was absent in Uganda for the same period. The existence or absence of this political base explains the divergent outcomes of their malaria control initiatives.

The existence of political will to combat malaria in Rwanda is demonstrated in three ways: the verbal expressions of intent and policy declarations by key leaders; the mobilization and allocation of resources for combatting malaria; and the creation of institutions to implement malaria control policies as well as mechanisms to ensure that these institutions deliver. This dissertation argues that while the first dimension, rhetorical commitment, is present in Uganda, the latter two, particularly mechanisms to ensure accountability, are not.

The leaders of Rwanda, from the President to village-level politicians, continuously express their commitment to combatting malaria at malaria control campaigns, conferences and forums. They have endorsed malaria-related World Health Assembly resolutions and malaria control declarations at the Africa level (such as the Abuja declaration), and included malaria control as a key priority area in the country's Vision 2020 health strategies.

Expressions of commitment are also present in Uganda where the President, Prime Minister, government ministers and local officials often declare that fighting malaria is a priority for the country. Uganda has also codified malaria control declarations and objectives in policy. It has endorsed various malaria control resolutions at the global level (World Health Assembly resolutions as well as Africa-level initiatives including the Abuja declarations).

The difference, however, lies in giving meaning to these expressions and policies through creating effective structures and mechanisms of implementation and accountability that ensure malaria control policy objectives are achieved. In Rwanda, such effective

structures and mechanisms have been put in place. From the Ministry of Health and the National Malaria Control Program to health facilities and community level health workers, Rwanda's structures for combatting malaria largely work very well. As discussed in Chapter 7, the structures work, not because Rwanda has more or better qualified human resources for health or financial resources than Uganda. In fact, Uganda fares better in terms of internal human resources for health, and both countries rely on external donors to fund malaria control interventions. Rwanda's infrastructure works because malaria control interventions are purposefully politicized; there is politically induced collaboration in malaria control across sectors and levels; and there are politicized multi-layered policy enforcement and accountability mechanisms.

The purposeful politicization of malaria control entails the direct involvement of national and local political leaders. In Rwanda, at the national level, key members of the executive, including the President and the PM, spearhead malaria control campaigns. The President received an award for his role in fighting malaria from the African Leaders Malaria Alliance (AMLA). The head of the national malaria control program is a cabinet appointee position. More importantly, responsibility to combat malaria in Rwanda's villages and districts rests with the mayors and heads of the social sector clusters respectively, not with the district and village health authorities. In Uganda, the involvement of national and local political leaders in the fight against malaria is either absent or passive at best. Unlike Rwanda, the head of the Uganda national malaria control program is not cabinet-appointee, and ranks low in the MOH organizational structure. Additionally, the responsibility to combat malaria in Uganda does not rest with district chairpersons or mayors, although they are mandated to oversee the health sector. In the words of a senior official with the Uganda Ministry of Health, malaria control is "medicalized" in Uganda and is therefore left to malaria control programmes and the health system.

Rwanda's collective approach to malaria control is manifest in politically driven (with a high level of involvement of political leaders) collaboration with the central government across all sectors and levels of governance (e.g. between the Ministry of Health and other ministries and authorities, including the Ministries of Education, Agriculture, and Infrastructure Development, as well as the Rwanda Governance Board, local authorities and even security forces to mention a few). This politically motivated cooperation results in a multi-sectoral approach to controlling malaria, which, through boosted capacity, enables the Ministry of Health and the National Malaria Control Program to deliver on their mandates. As one of Rwanda's ministers, also quoted in Chapter 7, reports, the government has worked to stamp out department by department ownership of policy and authority to arrive at a collective sense of ownership and responsibility: not "my area, my ministry [but] ours - this is our government" (Iyer, 2012, p.13). This expression of ownership suggests a holistic approach to addressing policy issues. The mobilization of technical and financial capacities (eg. donors, UN agencies, international and national NGOs), and community capital (eg. volunteers and community health workers) also contributes to this collective control of the disease. It is important to note that harnessing the collective capacity of the nation and its development partners in order to achieve malaria control policy objectives has been achieved through deliberate government policies and instruments of power.

In contrast, collective control of malaria is absent in Uganda. Although health policies and plans, including malaria control policies, recognize the need for collective action and promote a multi-sectoral approach, especially to combatting malaria, the stated goal of collaborative action remains elusive. The government has established some structures, including inter-sectoral committees with clearly stated mandates and well-defined roles. However, these structures do not function well in Uganda. Instead, there is competition between sectors seeking status and influence within the government, which undermines the

multisector approach to combatting malaria. In fact, in some instances, as shown in Chapter 7, there is a lack of collaboration even within the health sector itself. The political drive that could induce collaboration is missing in Uganda. As a senior official with the Uganda MOH states, such political drive can only come from the country's executive leadership. Only the Office of the President and/or the Prime Minister have a broad enough mandate to induce collaboration across sectors.

Finally, the role of politics in malaria control policy enforcement and accountability mechanisms within the two countries is quite different. While Uganda and Rwanda have introduced a variety of similar policies and structures over the years, our findings suggest that the performance of policies, and the structures that implement them, is a political issue. In Rwanda the structures and institutions responsible for malaria control are put under a political microscope, ensuring their accountability. The enforcement of malaria control policy and the accountability of policy delivery agencies is politicized in Rwanda in a number of ways (discussed in chapter 5). These include a performance contract between the national President and local mayors that ensures malaria targets are met, and a parallel ruling party structure that ensures the success of social sector targets, structures that exist in Uganda but do not deliver. Such politicization of policy enforcement and accountability is absent in Uganda. In fact, our findings suggest that political leaders at the highest level shield corrupt officials or even create opportunities for corrupt practices that have negative impacts on malaria control (eg. the suspension of Global Fund grants after allegations that a grant was used to fund a political campaign for the president in Uganda). Simply put, the structures and institutions responsible for malaria control in Rwanda respond to political pressure for accountability, whereas those in Uganda are not put under political pressure and their performance is not subject to such scrutiny.

Analytical Framework Revisited

This section assesses the usefulness of “state effectiveness” as a conceptual framework. It particularly looks at the degree to which the analysis and findings from the empirical chapters provide support for the proposition that an effective state (i.e. one that attains its own stated developmental objectives) is characterized by the presence of autonomy, capacity and political will.

State autonomy was found to be a significant determinant of state effectiveness. The research findings presented in the empirical chapters suggest that the divergent effectiveness of Rwanda and Uganda is partly due to the presence of autonomy in the former, and its absence in the latter. Our findings suggest that the Rwandan state uses its autonomy (sometimes described as policy independence in this research) to influence and direct internal and external actors such that they rally behind the state’s agenda and methodology in combatting malaria, allowing the state to determine how best to reduce the burden of disease in its own country. In Uganda, the government faces challenges in both claiming its autonomy, and in influencing internal and external actors to combat malaria as per the government’s direction, undermining the fight against malaria. As discussed in chapter 6, there are instances (eg. the policy decision of donors to halt the IRS campaign in northern Uganda) in which rejection of the government’s direction in combatting malaria led to renewed malaria outbreaks and epidemic.

State autonomy is not as straightforward as statist scholarship describes it. This research, for example, found evidence of what I would call earned autonomy from internal and external actors, suggesting that autonomy is not a “given” and cannot be taken for granted and can erode over time depending on circumstances. In the context of malaria control in Uganda and Rwanda it is particularly difficult to treat state autonomy as a given. Success in controlling malaria relies on the cooperation of both internal and external actors.

Without the cooperation of internal actors, communities would not use malaria control tools and commodities. Similarly, in both countries external actors are intimately involved in policy design and agenda setting at the global level (discussed in Chapter 4). In both Rwanda and Uganda policy content is adopted from the WHO agenda, funds for malaria control come largely from foreign donors, and malaria control activities are implemented through international NGOs. In short, external actors have sufficient influence over both states to muddy the issue of state autonomy.

Our study, however, does point to the possibility of earning autonomy, even in the face of dependence on society for cooperation and on donors for funding. Two factors play a major role in earning this autonomy: credibility and results. States earn autonomy in terms of setting their own policy agendas in direct relation to their demonstrated ability to safeguard and manage internationally mobilized resources for malaria control; and to deliver results in the control of malaria. The Rwandan state has consistently displayed both qualities (credibility and results) required to earn its autonomy, whereas Uganda has not been consistent, making it challenging for the Ugandan state to earn or sustain autonomy.

Strict accountability mechanisms to safeguard internationally mobilized resources for malaria control, and the delivery of positive results, has allowed Rwanda to negotiate more policy space within the parameters of international best practice, and greater autonomy from the international actors involved in malaria control. The negotiations and the process Rwanda underwent in order to earn such autonomy were rigorous. As discussed in Chapter 6, development partners were initially reluctant to cede policy space to the Rwandan state. However, the donors' collective guilt feelings for their failure to prevent the genocide and their desire to make amends, together with the government's decisions to expel international NGOs that defied its directions and its ability to position itself as development oriented, all worked in the government's favour. It was determined that the Rwandan government should

lead the state building process in Rwanda, as per such internationally agreed instruments and frameworks as the Paris Declaration and the Accra Agenda for Action on Aid Effectiveness, leading key donors to cede policy space to Rwanda. The government's position was later solidified by its credibility and results delivery.

It is within this context that considerable resources for malaria control are channeled through Rwanda's government systems, although some resources still go through non-state actors. There is evidence pointing to the co-existence of both power over society and power through society in Rwanda's malaria control interventions. On the one hand, the Rwandan state uses its security forces to enforce malaria control policies and ensure compliance with state objectives. On the other hand, strong ties between the state and society allow the state to pursue and achieve stated malaria control objectives with the support of Rwandan society. These ties are anchored in the state's ability to deliver positive results, and the empowerment of communities to hold state agencies accountable for failure (as discussed above). The combination of power over society and power through society help the Rwandan state to be more effective, leading to societal compliance and cooperation with state goals.

In Uganda, the state lacks credibility in managing externally mobilized resources for malaria control. Corruption scandals involving the Global Fund, and the inability of the government to enforce accountability policies and mechanisms, have dented the government's standing in the eyes of international donors involved in malaria control. Hence, donors are reluctant to channel resources for malaria control through Uganda's government systems. A government official quoted in Chapter 6 said, "If it was my money, I wouldn't channel it through the system of a corrupt government". The government has largely succeeded in mobilizing resources for malaria control from donors, but it has failed to persuade donors to channel these resources through government systems. Donors have been reluctant even to cooperate with the government in providing information as to where, how

and by whom their funds to support malaria control are being deployed. They have also opposed the government's decision to engage security forces in controlling malaria and have ignored the government's advice with regard to the management of IRS campaigns. We have to note here that the attitude of many Ugandan officials regarding this lack of autonomy from external actors is passive at best. The Ugandan state is not pursuing autonomy as aggressively as Rwanda has done.

Additionally, the Ugandan state sometimes seems unable to convince internal actors, including its own parliament, civil society groups, and the Ugandan public, to support the policy design process or its implementation. Internal actors also challenge the government's autonomy. For example, some parliamentarians, civil society groups and communities rejected the use of DDT to combat a malaria epidemic in Northern Uganda, refusing to spray in their communities. Uganda has not consistently delivered positive results in the area of malaria control, further undermining the credibility of its initiatives aimed at combatting the disease.

There is evidence that Rwanda's structural bases for controlling malaria, including its health system and national malaria control program, perform better than those in Uganda, partly explaining the states' divergence in malaria control effectiveness. There is, however, less evidence that this difference in performance is due to stronger capacity in Rwanda than in Uganda. In fact, in some respects, Uganda's capacity is the stronger, as findings discussed in the empirical chapters suggest. For example, Rwanda's health system is less than 15 years old and suffers from a critical shortage of human resources. Uganda has twice the number of health workers per 1000 population that Rwanda has. Its knowledge base, embedded in public health and research institutions as well as the capacity of district health officers, is stronger than that of Rwanda (as discussed in chapter 7). The fact that Rwanda sought

Uganda's support to build the capacity of its NMCP in the early 2000s is evidence of Uganda's stronger capacity in this policy area.

The divergence in Rwanda's and Uganda's effectiveness in controlling malaria, therefore, cannot be attributed to differences in their latent capacity, but to their ability to mobilize and deploy that capacity. In the case of Rwanda, the state was able to mobilize and deploy the varied capacities of a wide range of actors from community and national level institutions to global level actors, significantly augmenting the capacity of its health system and national malaria control program. Although these capacities were also available in Uganda (as discussed in the empirical chapters) the state lacked the ability, which can be read as political ability, to mobilize and deploy them to combat malaria. To understand the divergent malaria control outcomes of the two states it is necessary to understand a distinction between the availability and the mobilization and deployment of capacity.

The findings of this research show that political will/commitment is also an important factor in a state's effectiveness; its ability to achieve stated malaria control policy objectives. Chapter 5 demonstrated that the presence of political commitment is the "bedrock" of Rwanda's success in malaria control, whereas its paucity can be seen as a major obstacle to success in Uganda. The variation in commitment under discussion lies in institutional commitment. Rwanda "credibly locked in" state commitment by creating national and local level institutional infrastructure to support malaria control. Rwanda's monetary investments in malaria control exceed those of Uganda, although since both countries rely heavily on external funding for malaria control this fact is less salient. The use of budgetary commitment as a measure of political will in aid-dependent contexts is of somewhat questionable value.

This research shows that it is difficult to prescribe the level of commitment needed for effectiveness in malaria control. It remains clear, however, that commitment leads to effectiveness, particularly when, as shown in the case of Rwanda, it is championed by

officials with authority, shared across sectors and levels, and reinforces compliance with state policy. I will expand on these points presently.

High level commitment

The research findings indicate that “who” is committed to malaria control matters. While it is clear that the commitment of various actors involved in malaria control in either country is critical, the commitment of certain actors seems to carry more weight than that of others. In the case of Rwanda, it is clear that the presence of political will at the highest level of the executive, particularly on the part of the President, is significant in bolstering state effectiveness in combatting malaria. The President is seen as crucially responsible for the state’s effectiveness in improving health outcomes in Rwanda in two ways. First, through his direct involvement in addressing public health issues, ranging from regular visits to communities affected by specific health problems (e.g. his introduction of the Girinka program in 2006 in a region struggling with malnutrition – discussed in Chapter 5), to initiatives aimed at improving malaria control (eg. the use of drones to improve the supply of malaria drugs and malaria prevention commodities - discussed in Chapter 7), and the swift action taken against poor performers in the health sector, the president has championed efforts to improve national health outcomes. Second, given his commitment to the state’s development agenda, he is seen as setting a clear standard for the key leaders involved in malaria control, including the Minister of Health, the Director of the Biomedical Centre, the head of the NMCP, and mayors.

In Uganda, lack of commitment at the highest level of the executive, including the President and the Prime Minister, is a major challenge to translating policy into practice. It is clear from the empirical chapters that people expect the executive leadership to take the lead in combatting malaria. Comparisons are often drawn between the role the President played in combatting HIV/AIDS (a role which was key to Uganda’s success against that disease in the

1990s and 2000s - as shown in Chapter 3), and his limited role in controlling malaria. It is also evident from our findings that the commitment that does exist (eg. at the level of the National Malaria Control Program, the ministerial level including the Ministries of Health and Finance, and at the parliamentary health committee level) has not translated into effectiveness, partly because of the limited authority of these actors, and their inability to champion the interventions needed to combat malaria effectively. The President of Uganda, like the President of Rwanda, can be seen to set a standard for behaviour. In his case the standard being set in terms of combatting malaria is negative or indifferent at best, contributing to helplessness in the malaria control policy arena, as discussed in Chapter 5.

The expectation that presidents or other leaders with authority will champion the commitment needed for malaria control reflects their considerable power over the state and society as discussed in Chapter Three. Using these powers and the institutional framework that enables them to exercise those powers, both presidents shape the behaviour of national and local leaders, including actors involved in health and malaria control. In essence, in a context where powerful leaders set the standard only such leaders or actors as are given power by the president can champion the commitment needed for combatting malaria.

Shared commitment

Our case studies demonstrate that strong partnerships between international development partners, the state, and society made a difference in combatting malaria. They show the important roles played by each of these actors in combatting malaria. The international development partners provide critical technical and financial support to malaria control efforts in Uganda and Rwanda. In fact, a close look at the national policy response to malaria of both countries over the last 100 years reveals that they have mirrored the international policy response for the same period: policy content and the bulk of available resources originate from technical agencies such as the World Health Organization (WHO)

and donor agencies, as discussed in Chapter Four. It is clear from our case studies that the support of international development partners greatly contributes to malaria control efforts in both countries. It is also evident that the state plays a key role in combatting malaria by adopting malaria control tools with proven efficacy through policy transfer from the WHO, and by creating structures that can translate these tools and policies into outcomes. Communities, as the end users of malaria control tools and commodities also play a major role in controlling the disease. Without their cooperation, tools such as mosquito nets might, as observed in Uganda, be used instead as wedding gowns.

My findings suggest that malaria control policy objectives can be achieved when these three actors (international agencies, the state, and communities) collaborate such that all the players rally behind a common goal and purpose. Underlying the difference between Rwanda and Uganda in effectively meeting their own malaria control goals is the difference in their ability to convey the meaning and value of collaboration and a shared sense of purpose. Whereas in Rwanda there is a common belief in their shared purpose and an expectation that each actor will play its defined role in order to achieve that purpose, belief, purpose and expectation are all absent in Uganda. In Uganda, the lack of common values or shared purpose among the key actors involved in combatting malaria seems to be accepted, though not necessarily endorsement, by the state. The findings of this research point to a deep-seated defeatism that has normalized poor performance and the failure of actors/partners to play their parts.

An important benefit of holding in common the value of “doing one’s part” is that the commitment to combat malaria becomes a shared one, facilitating coherence within the malaria control policy arena as observed in Rwanda. Although the genesis of Rwanda’s shared commitment is not entirely clear, the role of the state in prompting each member of

the partnership to deliver its contribution seems to have played a critical role. We turn to the role of the state as motivator in the next section.

Enforced commitment

As discussed in the empirical chapters, Uganda's and Rwanda's commitments to combatting malaria are recorded in the form of policies and plans that capture who will do what, when, how and where. In both countries, established national development targets, including malaria control targets, are the responsibility of national and local governments. At the local level, communities are encouraged, and expected, not only to cooperate with health care professionals involved in combatting malaria, but also to recruit the volunteers who make up the backbone of the malaria control work force needed to achieve the stated targets. The roles and responsibilities of development partners in achieving malaria control targets are also defined. The difference in terms of policy outcomes between Uganda and Rwanda lies in their ability to enforce these commitments.

In Rwanda, failure to meet malaria control targets, or other development goals, results in sanctions (e.g. the firing of mayors, and dismissal of malaria control staff from the civil service, as discussed in Chapter 5). One explanation for the emergence of shared commitment in Rwanda might be that the government holds key actors in malaria control accountable to its commitments through legal institutions and accountability frameworks. In Rwanda, accountability policies (e.g. anti-corruption strategies), structures (eg. parliamentary health committees), and instruments (e.g. *Imihigo* performance contracts) have proven effective in creating disincentives for poor performance and/or lack of commitment. The state also deploys incentive structures (e.g. performance-based health financing models) that encourage actors to deliver on their commitments. Additionally, the government created mechanisms such as the Governance Board, which collects information from the public regarding the performance of institutions in delivering services, as well as local and national forums such

as the National Umushyikirano Council, which facilitates open dialogue on performance. These mechanisms serve as feedback loops, encouraging actors to remain committed to combatting malaria.

These accountability mechanisms are complemented by a narrative of “saving” Rwanda; not just keeping the country from sliding back into violence, but building a great middle-income nation out of the ruins of civil war through the sheer willpower of its political leaders and civil servants. The role of this narrative (discussed in previous chapters), is reflected in slogans such as: “Rwanda in a hurry”, “We can and should rebuild Rwanda”, “Rwanda for Rwandans”, “Departing from past way of doing things”, and “Rwanda as a development model state in east Africa”. This “branding” contributes to a national public service ethos. The role of this ethos in encouraging the meaningful engagement of civil servants, and their ongoing commitment to shared goals like controlling malaria cannot be ignored.

In Uganda, commitment to the state’s policy goals is not as consciously and conscientiously re-enforced. This is not because there are no legal and/or institutional frameworks to hold actors involved in malaria control accountable, but because the existing frameworks and accountability institutions are not deployed to enforce commitment to malaria control targets. As a senior official with the Ministry of Health states, “failure to meet commitments is reported without consequences”. For example, the Parliamentary Health Committee might raise questions about poor performance, or the Auditor General might report mismanagement of malaria control resources, or the Ministry of Finance might identify specific actors who are not meeting their commitments for malaria control, or the Ministry of Health might identify failure to meet targets in its annual health sector performance reports but there will be no consequences. Enforcement ends at raising questions of accountability, not with answering them. This has created a culture of tolerance for mismanagement and lack

of commitment.

The argument here is not that malaria control objectives can be met or not met, depending entirely on the enforcement of commitment to the targets. Combatting a disease like malaria, failures are expected. Actors involved in malaria control in both Uganda and Rwanda miss targets (as discussed in Chapter 7). The important point being made here is that enforcing commitments means that when a target is not met, and the burden of malaria increases, questions are raised and corrective measures are taken. Enforced commitments in Rwanda mean that these corrections are made consistently, whereas in Uganda such measures are sporadic at best.

Implications for international and national policy response for combatting malaria

The thesis of this work is that politics and politicians matter in the fight against malaria. My analysis confirms that positive political will is necessary to translate good technical solutions into real world possibilities. My research findings reveal that malaria is a political disease, because the burden of the disease can be directly linked to the action or inaction of politicians. As discussed in Chapter 4, a closer look at both the history of malaria control and contemporary efforts to control and eradicate malaria reveals that success in controlling and eradicating the disease depends largely on the determination of political agencies, and the political will of the state, donors and authorities.

The collective commitment of Western powers and UN agencies such as the WHO after WWII led to a considerable reduction and in some cases the eradication of the disease in many countries. When the political determination of donors and subsequently the WHO and other agencies disintegrated in the 1960s and 1970s, the world saw an increase in the burden of the disease. The disintegration of political determination was manifest in the withdrawal of support and resources from key agencies such as the WHO by the US and other powers.

Their decision to withdraw support from the WHO was a political decision that undermined malaria eradication and control efforts. There are also examples of political decisions which have led to reductions in the burden of malaria. A good example of this is in Italy, where Mussolini's decision to drain 80,000 hectares of the Pontine Marshes led to the eradication of malaria on the Italian coast. Of course health authorities and malaria experts played an influential role in this intervention, but political will translated Italy's malaria expertise into malaria control achievement. This research also reveals that purposeful politicization of malaria control has yielded results in Rwanda, while the lack of political will undermined malaria control in Uganda. Given that both the history of malaria control, and contemporary efforts to combat and eradicate malaria point to the link between disease management and the action or inaction of politicians and agencies with authority, I contend that it is time to take politics seriously as a determining factor in combatting malaria.

Taking politics seriously has implications for both international and national policy responses. It has two major implications at the international policy level. First, we must revisit the nature and scale of the international policy response. As elaborated in Chapter 2, the international response has been characterized by reluctance, half-heartedness and even inaction, despite the availability of malaria control and eradication tools. There has been a tendency to wait until the malaria situation is out of control, as was the case between 1970 and the 1990s when malaria-related deaths reached 2.7 million and malaria cases rose to over 300 million per year. A rising sense of urgency compelled M.A. Farid, the famous malaria expert, to decry the lax international response, predicting that "a day will come when the havoc inflicted on the human race by malaria will create in man anew the determination to eliminate this scourge from the earth" (Farid, 1980, p. 21). Waiting for that day is not an option because the malaria parasite the world is up against is so sophisticated, its genetic diversity and its ability to evade the human host's immune defenses "by constantly changing

its surface” so highly developed, that the malaria control and eradication tools which are currently available and effective may no longer be effective when the world gets serious. It is also likely that the cost and resources needed for an international policy response, already considerable, will continue to climb.

Second, donors and instruments such as the Global Fund must incentivize their malaria-endemic African national partners to purposefully politicize malaria control, making malaria control a state priority. Donors and global health initiatives might accomplish this through financial inducements, or by supporting initiatives aimed at defining and improving the role of political leaders at different levels. Support for national political leadership must be designed in such a way that it does not inadvertently facilitate political interventions that undermine the ability of the health care professionals to deploy their expertise in and knowledge of malaria control and eradication. We must be careful of imposing penalties and setting conditions for aid that undermine recipient country ownership of policies and programs, as discussed in Chapter 2. The needed policy shift would require a culture of “thinking and working politically” in developing malaria control policies; a culture in which political economy analysis and engagement with political actors might inform the international response.

Taking the impact of politics seriously also has implications for national policy responses. First, Africa’s malaria-endemic states need to re-think the role of political leaders in combatting malaria. My research reveals that placing responsibility for malaria control on the shoulders of political leaders is likely to yield better results, particularly when such responsibility is coupled with accountability. Policy makers would move away from relying on the health system and national malaria control programs to combat malaria, and look to their political leadership to play a central role. Determining which political leaders might best spearhead malaria control efforts at which level would need to be context-specific, lines of

control and accountability would have to suit the specific politico-administrative realities of the state (e.g. district chair persons in Uganda and mayors in Rwanda). My findings suggest that overall responsibility must be shared between national and local political leaders, with national political leaders championing national-level efforts to combat malaria and local leaders ensuring malaria control policy objectives are achieved locally.

The accountability dimension of combatting malaria orients actors towards the results which are so important for demonstrating the credibility of the state. Credibility earns the state the cooperation of both its own society and its development partners in combatting malaria. States need to enforce accountability policies and mechanism, not to penalize health workers, institutions, and agencies who are not achieving the hoped-for malaria control objectives, but to ensure that critical questions are raised and answers are found when the system meets with challenges and/or failures. Enforcing accountability makes it clear that the professionals, institutions and political leaders responsible for controlling the disease are doing the best they can to combat malaria.

Finally, taking the role of politics and politicians seriously will allow states to re-think how best to deploy the capacities available to them from society at large, official state actors, and international actors involved in malaria control in malaria endemic countries. Often, emphasis is placed on capacity building, while this research has identified mobilizing and deploying already available capacity as the major challenge. The state can be more effective in combatting malaria when it is able to mobilize its own workforce (eg. local agents and volunteers) to implement state programs and activities within communities, effectively deploy its bureaucratic capacity, and take advantage of other capacities such as technical assistances and resources from donors as well as international and local NGOs. This research suggests that states pay attention to incentives that foster capacity deployment and watch for disincentives that impede it. This will entail a better understanding of both service delivery

by civil servants and the dynamics involved in interactions between the state and the broader society, and the state and external actors. Effective deployment of capacity will mean building a broad consensus for collective action.

Unaddressed questions and avenues for future research

This study has established that politics matter in combatting malaria by showing the links between state effectiveness and effective malaria control. There remain many unaddressed questions which warrant further research. First, my analysis of state effectiveness remains incomplete in that I did not fully explore the impact of exogenous factors on the effectiveness of the aid-dependent African state. For example, while we explored the effective utilization and management of externally mobilized resources and the effective transfer of externally developed policies, we do not know how much of the state's effectiveness is attributable to transferred policies and resources. I did not ask how effective Rwanda or Uganda would be in continuing malaria control activities if there were a radical shift in the international policy response to malaria, as happened in the 1960s when key donors and agencies abandoned the global malaria eradication program. In a volatile global policy environment where sources for malaria funding might dry up for a variety of reasons, from domestic pressure due to economic hardship, to a change in the political leadership or landscape of donor countries, the possibility of a weakened international policy response cannot be ruled out. Hence, it is important to understand further the linkage between international and national policy response in the context of state effectiveness.

Second, while my findings reveal the importance of human agency in achieving or not achieving malaria control policy objectives (particularly the agency of specific political leaders in this case study), the research did not consider whether and/or how well individual motivation has been transferred into institutional momentum. Further research might ask if the political will behind effective state action has been consolidated in instruments and

institutions that would be able to continue the work under different leaders and leadership. Specifically, would the structural base for controlling malaria in Rwanda remain effective if Paul Kagame were not in the equation? Knowing the answer to this question would allow us to better understand the relationship between agency and structure in the context of state effectiveness in developing countries.

Third, while these research findings show state security forces contributing to the health status of the population by providing free malaria control services at their own medical facilities and participating in the construction of civilian health centers and health posts, the role of security forces in coercing civilians to cooperate with the state in IRS for malaria control needs to be investigated further. It is generally accepted that the state uses the police and other state-based powers to enforce laws and activities that promote public health including enforcing public quarantines, mandatory vaccinations, and seat belt requirements. These activities fall under the purview of the state's protection of the health and safety of citizens. Further research might examine the question, "Can (and should) armed forces be used to control malaria?" A positive answer to this question could have major policy implications for combatting malaria in malaria endemic African countries, many of which support tens of thousands of active soldiers.

Finally, there is a gap in this research related to the process of translating political will at the national leadership level into political will at the civil service, societal, and aid donor levels. Although this research points to the role of accountability instruments and enforced commitment the process of stimulating public engagement is open to further study. Some areas of study that might prove productive include exploring the specific skills or qualities, if any, that national political leaders have relied on to promote commitment in people, and to embed it in systems and structures. Such research might also consider the role of

communication, propaganda, fear and vision in building the political will necessary to the effective translation of malaria control policy into positive malaria control outcomes.

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Interview Questions for Uganda

GENERAL QUESTIONS FOR GOVERNMENT OFFICIALS, DONORS, AND NGOS

General Questions for high-level government officials (These officials include director generals (permanent secretaries) of MOH and Ministry of Finance, MPS, politicians such as Ministers of Health, Finance and local government, Office of the Prime Minister and Presidency)

1. In 1995, the NMCP was established. Can you explain why the NMCP was established this year and the process of establishing it? What was the mandate of the NMCP and how was it established? Who was involved in establishing it?
2. In 1997 Uganda adopted a decentralization policy that shifted responsibility for service delivery to local authorities. Can you tell us about the impact of decentralization on malaria control?
3. In 2000 Uganda participated in the African submit on Roll Back Malaria and signed up to the Abuja declaration which required the reduction of malaria by 50% by 2010 through the implementation of malaria control interventions such as LLINs, IRS, environmental management, case management (ACTs, and treatment and prevention of malaria during pregnancy, including IPT). Can you tell me about how these policies were adopted and actors involved in the process? Can you discuss factors that influenced the policy development (adoption) process? Which of the policies, programs or activities have been most effective, in malaria control? What have been least effective?
4. In 2000, the government waived import taxes and tariffs on mosquito nets and netting materials. How was this decision made and which actors participated in this policy decision? Did external actors play a role in developing this policy? What was the impact of the commercialization of distribution of ITNs on coverage of ITNs? From 2007, the government concentrated on public sector delivery mechanisms commencing a mass distribution of free INTs. Why this policy shift? How was this decision made and which actors participated in this policy decision? Did external actors play a role in developing this policy?
5. In 2001, Uganda adopted the Village Health Teams (VHTs) strategy. How was this policy/program developed and who participated in developing this program? Why are the VHTs not paid? How are the VHTs coordinated and supervised?

6. In 2004, the Global Fund suspended its grant. What impact had that had on malaria control efforts? How was the grant resumed in 2006? After the Global Fund resumed funding Uganda, the government was awarded US\$ 125 million for 17 million nets, but the literature indicates that only 7 million nets were purchased. Can you explain the factors that contributed to the delay in purchasing the rest of the nets?
7. Can you tell us about the drug supply management including purchase, storage, consumption and coordination in Uganda? The literature indicates that stock out of nationally recommended drugs for malaria occur at public health facilities. Can you share your observations on this?
8. How are Uganda's National Malaria control policies developed? Which actors participate in developing and implementing them?
9. The literature indicates that Uganda experienced increase in malaria cases between 2000 and 2010. What factors contributed this increase? What actions as the government taken between 2010 and 2015 to control this disease?
10. What are the challenges you face in analyzing HMIS data to inform decision making?
11. Can you share your view about the government's efforts to launch a national health insurance scheme? Who is involved in this? What role are external actors playing in this? How has the process evolved? What are the challenges in establishing national insurance scheme in Uganda?

Questions for low-level government officials including district administration, health workers at health facilities and VHTs (CHWs)

1. In 1997, the government decentralized service delivery. What is the role of the local government in malaria control?
2. Which actors are involved in malaria control at local level? What is the relationship between local administration and actors involved in malaria control? What is the relationship between the local administration and health facilities? What is the relationship between the local administration and VHTs?
3. As a member of the VHT, how do you see your role in malaria control? What malaria control activities do you undertake? What training did you take to participate in malaria control? What are the greatest challenges you face in undertaking these activities? Who supervises you? What incentives do you receive and from whom? What is the relationship between you and other health workers at health facilities?
4. As a health worker, how do you see your role in malaria control? What malaria control activities do you undertake? What are the greatest challenges you face in undertaking

these activities? Who supervises you? What incentives do you receive and from whom?
What is the relationship between you and VHT s?

General Questions for donors, NGOs, and commercial outlets (e.g, pharmacies)

1. In 2004, GF started supporting Uganda's malaria control activities. Who was involved in the decision to support Uganda's malaria control activities? What role did the government play? What are the greatest successes you have achieved with your support? What are the greatest challenges you face in supporting malaria control activities Uganda? Can you explain the suspension of grants in 2006? Why and how the Global Fund resumed funding malaria control in Uganda?
2. How is GF's relationship with the government? How is your relationship with NGOs? Are there mechanisms that facilitate information sharing or decision-making with the government and NGOs? How were there mechanism developed? How are the decisions taken by/at these mechanisms implemented?
3. In 2006, PMI started funding malaria control activities in Uganda. Can you explain how the decision to support Uganda's malaria control activities was made? Who was involved in the decision-making? What role did the government of Uganda play? What are the greatest successes you have achieved with your support? What are the greatest challenges you face in supporting malaria control activities in Uganda? How is your relationship with the government? How is your relationship with NGOs? Are there mechanisms that facilitate information sharing or decision-making with the government and NGOs? How were there mechanism developed? How are the decisions taken by/at these mechanisms implemented?
4. PMI is the principal partner in IRS. Why does the PMI focus on this area? What successes have you had in supporting the implementation of IRS? What challenges have you had in supporting the implementation of IRS?
5. DFID is a key donor in the area of malaria control in Uganda. Can you share details on your role in malaria control in Uganda? When did you start funding malaria control in Uganda? What are the greatest successes you have achieved with your support? What are the greatest challenges you face in supporting malaria control activities in Uganda? How is your relationship with the government? How is your relationship with NGOs? Are there mechanisms that facilitate information sharing or decision-making with the government and NGOs? How were there mechanism developed? How are the decisions taken by/at these mechanisms implemented? The literature indicates that you channel

your support through USAID's PMI and UNICEF. Why so? How was the decision to channel resources through PMI and UNICEF made? Who was involved?

6. What is the role of WHO/UNICEF in controlling malaria in Uganda? How is your relationship with the government? How is your relationship with NGOs? Are there mechanisms that facilitate information sharing or decision-making with the government and NGOs? How were these mechanisms developed? How are the decisions taken by/at these mechanisms implemented?
7. As an NGO, what is your role in malaria control activities? What challenges do you face in undertaking those activities? What actors do you work with? What is the relationship between you and the government? Do you work with VHTs? If so, when did you start working with them and how do you engage VHTs? Do you provide incentives to VHTs? If so, what type of incentives and Why?
8. As a commercial outlet, what is your role in malaria control activities? What challenges do you face in undertaking those activities? What actors do you work with? What is the relationship between you and the government?

SPECIFIC QUESTIONS ON POLITICAL WILL, AUTONOMY AND CAPACITY

Political commitment related questions:

Expressed and budgetary commitments sub-questions

1. It is well expressed in the national development plan and the health sector policies that controlling malaria is a priority for the government yet the government has not allocated enough resources for controlling malaria and depends largely on external funding. Can you explain why? (This question will be posed to the MOH and Ministry of Finance leadership)
2. What impact can dependency on external funding for malaria control have on malaria control in Uganda in the long term? (This question will be posed to the MOH officials as well as GF and PMI representatives in Uganda)

Institutional Commitment sub-questions

3. Has the political leadership established accountability mechanisms to ensure malaria control policy goals are achieved? What kind of mechanisms have been established? Are there instances whereby sanctions have been applied to ensure malaria control policy

goals are achieved? Are there instances whereby changes were initiated based on lessons learnt or as a result of new evidence? Are there instances where incentives have been provided for achieving malaria control policy goals? (This question will be posed to the high level government officials)

General commitment-relegated questions to researchers, and development partners

4. Do you think the government, particularly the political leadership, is committed to controlling malaria in Uganda?
5. Can you provide examples of the government's commitment to malaria control?
6. What are the reasons or factors for the presence or absence of commitment to control malaria in Uganda?

Capacity-related Questions

Administrative capacity sub-questions

1. How is staff recruited for the National Malaria Control Program in Uganda? What is the process of becoming staff in the NMP? Are there exams or other means to become staff for the NMCP in Uganda?
2. What are the challenges the NMCP is facing in guiding implementation of malaria control activities? (This question will be posed to the NMCP manager and the NMCP staff).
3. What does the NMCP need to do to be more effective? (This question will be posed to both the NMCP management as well as partners such as GF and PMI)
4. Is there growth ladder for civil servants in the NMP in Uganda? What prospects for promotion can someone expect one they join the NMP as a civil servant?

Capacity availability and deployment sub questions

5. What challenges is Uganda facing in its struggle to control malaria?
6. It is clear from the literature that VHTs form the backbone of malaria control infrastructure in Uganda. Are there mechanisms to supervise and keep VHTs motivated and effective? (This question might be posed to non-governmental actors that are involved in malaria control)

Coordination capacity sub-questions

7. What systems and institutions are in place to coordinate malaria control activities? How were these systems and institutions created and who created them? How well have those coordination systems worked? (This question will be posed to government officials)
8. What are the challenges you face in supervising the practices of the private sector actors involved in malaria control? (This question will be posed to the NMCP)
9. How do you coordinate your malaria control activities with the government? (This question will be posed to donors and non-governmental actors involved in malaria control)

Bureaucratic autonomy sub-questions

10. Can you describe in detail the interactions between the NMCP, the MOH, the cabinet, the parliament and the presidency? Can you explain the interaction between the National Malaria Control Program and NGOs? Can you explain in detail the relations between the NMCP and society?
11. Does the NMCP have the autonomy to deploy its capacity (specialized knowledge in malaria control) in a manner it deems necessary for reducing the burden of malaria in Uganda? Does the NMCP have authority to draw implementation plan for malaria control and enforce those plans ? (This question might be posed only to non-governmental actors that closely work with the NMCP)
12. What role do politicians play in malaria control? How does the NMCP interact with politicians and political institutions such political parties and the parliament? Are politicians involved in day-to-day activities of the NMCP in Uganda and why? Is implementation of malaria control programs politicized? (This question might be posed only to non-governmental actors, PMI, GF, and DFID)

Autonomy-related questions

1. Does the government have a priority list in relation to malaria control that internal as well as external agencies are required to support and/or adhere to?
2. Why is funding not channelled through the government (This question will be posed to the MOH, Ministry of Finance)
3. How did the policy not to channel resources through the government evolve? (This question will be posed to PMI, GF,DFID, UNICEF, and WHO officials)
4. Does the government have information on and authority over who is doing what and where and with how much funding in relation to malaria control? (This question will be posed to the NMCP/MOH)

5. Are there instances whereby internal or actors have defied government direction in malaria control? What actions did the government take to address it? (This question will be posed to the NMCP/MOH)
6. Can you tell me about your interaction with GF/PMI/DFID/WHO/UNICEF /INGOs on malaria control policy? Who is involved in setting policy? When consulting with these external actors, how did you interact with them? Did you have meetings? How frequently? Who attended?
7. What are the areas of agreement between you and GF/PMI/DFID/WHO/UNICEF /INGOs? Were there any issues on which you and these external actors disagreed? If so, what? Did your policy/priorities/implementation change as a result of your consultations with these actors? (Questions for high level government officials)
8. Did you have to apply for funding from the GF/PMI/WHO/UNICEF /INGOs? If so, who was responsible for making this application? Can you tell me about the application process? Who participates in the application process? (Questions for high level government officials)

Interview Questions for Rwanda

GENERAL QUESTIONS FOR GOVERNMENT OFFICIALS, DONORS, AND NGOS

General Questions for high-level government officials (These officials include director generals (permanent secretaries) of MOH and Ministry of Finance, MPS, politicians such as Ministers of Health, Finance and local government, Office of the Prime Minister and Presidency)

12. In 1999, the NMCP was established. Can you explain why the NMCP was established and the process of establishing it? What was the mandate of the NMCP and how was it established? Who was involved in establishing it?
13. In 2000 Rwanda participated in the African submit on Roll Back Malaria and signed up to the Abuja declaration which required the reduction of malaria by 50% by 2010 through the implementation of malaria control interventions. Can you tell me about how these policies were adopted and actors involved in the process? Can you discuss factors that influenced the policy development (adoption) process? Which of the policies, programs or activities have been most effective, in malaria control? What have been least effective?
14. Can you tell me about malaria control activities between 1999 and 2003?
15. Rwanda's government adopted a National Decentralization policy in 2000 to decentralize service delivery and undertook legal and institutional reforms, reorganizing the number of provinces from 12 to 5 and local governments (districts) from 103 to 30. Can you tell us about the impact of decentralization and restructuring on malaria control?
16. In 2009, the NMCP revised its treatment policy and restricted treatment of malaria to RDT and laboratory confirmed cases and now 94% of malaria cases in Rwanda are confirmed through laboratory or RDT. Why was the treatment policy reversed? Who was involved in developing the new policy and what role did external actors played? How was it implemented and which actors participated in the implementation of the policy?
17. Between 2004 and 2005 over 3.6 million nets were distributed to improve ITN coverage in Rwanda. How were the nets distributed? Which actors participated in the distribution?
18. In 2006 all health facilities transitioned to Arthemether-lumefantrine (AL). Why was this treatment policy adopted? How was this treatment policy adopted and which actors were involved in its adoption? A follow up question could be: what caused the delay in

adopting this treatment policy since resistance to Chloroquine, first line treatment until mid 2000s, was detected in the late 1980s?

19. In 2007, Rwanda launched community health program that focused on delivery of primary health care through CHWs. How was this policy/program developed and who participated in developing this program? Can you tell me about the training the CHWs receive? How are CHWs supervised? , Do CHWs receive any compensation/stipend for expenses incurred in their work?. How are the CHWs coordinated?
20. Rwanda experienced increase in malaria cases in 2009, 2011-2014. What factors contributed this increase? What actions is the government taking to control the surge in malaria cases?

Questions for low-level government officials including district administration, health workers at health facilities and CHWs

5. In 2000, the government decentralized service delivery. What is the role of the local government in malaria control?
6. Which actors are involved in malaria control at local level? Can you describe the relationship between local administration and actors involved in malaria control? Can you describe the relationship between the local administration and health facilities? Can you describe the relationship between the local administration and CHWs?
7. As a local administration, do you receive budget for malaria control? from whom do you receive your budget? do you know how your budget is determined? Do you have any influence over the amount? Have you received an increase or decrease in the budget? How do you determine how it is spent - is that determined centrally, for example, or locally? How do you set priorities?
- 8.
9. As a CHW, how do you see your role in malaria control? What malaria control activities do you undertake? What training did you take to participate in malaria control? What are the greatest challenges you face in undertaking these activities? Who supervises you? What incentives do you receive and from whom? What is the relationship between you and other health workers at health facilities?
10. As a health worker, how do you see your role in malaria control? What malaria control activities do you undertake? What are the greatest challenges you face in undertaking these activities? Who supervises you? What incentives do you receive and from whom? What is the relationship between you and CHWs?

General Questions for donors and NGOs

9. In 2003, GF started supporting Rwanda's malaria control activities. Who was involved in the decision to support Rwanda's malaria control activities? What role did the government play? What are the greatest successes you have achieved with your support? What are the greatest challenges you face in supporting malaria control activities in Rwanda?
10. How is GF's relationship with the government? How is your relationship with NGOs? Are there mechanisms that facilitate information sharing or decision-making with the government and NGOs? How were these mechanisms developed? How are the decisions taken by/at these mechanisms implemented? In February 2014, the Global Fund announced the piloting of a results-based financing model, called National Strategy Financing in Rwanda. How was this model developed? What role did Rwanda play in adopting this model?
11. PMI started funding malaria control activities in 2006. Can you explain how the decision to support Rwanda's malaria control activities was made? Who was involved in the decision-making? What role did the government of Rwanda play? What are the greatest successes you have achieved with your support? What are the greatest challenges you face in supporting malaria control activities in Rwanda? How is your relationship with the government? How is your relationship with NGOs? Are there mechanisms that facilitate information sharing or decision-making with the government and NGOs? How were these mechanisms developed? How are the decisions taken by/at these mechanisms implemented?
12. PMI is the principal partner in IRS. Why does the PMI focus on this area? Why did Rwanda include IRS in its vector control strategy in 2008 and what role did PMI play in adopting this policy? What successes have you had in supporting the implementation of IRS? What challenges have you had in supporting the implementation of IRS? Between January 2008 and August 2008, plans to implement IRS in five districts failed to materialize. Can you explain why?
13. What is the role of WHO/UNICEF in controlling malaria in Rwanda? How is your relationship with the government? How is your relationship with NGOs? Are there mechanisms that facilitate information sharing or decision-making with the government and NGOs? How were these mechanisms developed? How are the decisions taken by/at these mechanisms implemented?
14. As an NGO, what is your role in malaria control activities? What challenges do you face in undertaking those activities? What actors do you work with? What is the relationship

between you and the government? Do you work with CHWs? If so, when did you start working with them and how do you engage CHWs? Do you provide incentives to CHWs? If so, what type of incentives and Why?

SPECIFIC QUESTIONS ON POLITICAL WILL, AUTONOMY AND CAPACITY

Political commitment related questions:

Expressed and budgetary commitments sub-questions

7. It is well expressed in the national development plan and the health sector policies that controlling malaria is a priority for the government yet the government has not allocated enough resources for controlling malaria and depends largely on external funding. Can you explain why? (This question will be posed to the MOH and MONICOFIN leadership)
8. What impact can dependency on external funding for malaria control have on malaria control in Rwanda in the long term? (This question will be posed to the MOH officials as well as GF and PMI representatives in Rwanda)

Institutional Commitment sub-questions

9. Has the political leadership established accountability mechanisms to ensure malaria control policy goals are achieved? What kind of mechanisms have been established? Are there instances whereby sanctions have been applied to ensure malaria control policy goals are achieved? Are there instances whereby changes were initiated based on lessons learnt or as a result of new evidence? Are there instances where incentives have been provided for achieving malaria control policy goals?

General commitment-relegated questions to researchers, and development partners

10. Do you think the government, particularly the political leadership, is committed to controlling malaria in Rwanda?
11. Can you provide examples of the government's commitment to malaria control?
12. What are the reasons or factors for the presence or absence of commitment to control malaria in Rwanda?

Capacity-related Questions

Administrative capacity sub-questions

13. How is staff recruited for the National Malaria Control Program in Rwanda? What is the process of becoming staff in the NMP? Are there exams or other means to become staff for the NMCP in Rwanda?
14. What are the challenges the NMCP is facing in guiding implementation of malaria control activities? (This question will be posed to the NMCP manager and the NMCP staff).
15. What does the NMCP need to do to be more effective? (This question will be posed to both the NMCP management as well as partners such as GF and PMI)
16. Is there growth ladder for civil servants in the NMP in Rwanda? What prospects for promotion can someone expect one they join the NMP as a civil servant?

Capacity availability and deployment sub questions

17. What challenges is Rwanda facing in its struggle to control malaria?
18. It is clear from the literature that CHWs form the backbone of malaria control infrastructure in Rwanda. Are there mechanisms to supervise and keep CHWs motivated and effective? (This question might be posed to non-governmental actors that are involved in malaria control)

Coordination capacity sub-questions

19. What systems and institutions are in place to coordinate malaria control activities? How were these systems and institutions created and who created them? How well have those coordination systems worked? (This question will be posed to government officials)
20. How do you coordinate your malaria control activities with the government? (This question will be posed to donors and non-governmental actors involved in malaria control)

Bureaucratic autonomy sub-questions

21. Can you describe in detail the interactions between the NMCP, the MOH, the cabinet, the parliament and the presidency? Can you explain the interaction between the National Malaria Control Program and NGOs? Can you explain in detail the relations between the NMCP and society?
22. Does the NMCP have the autonomy to deploy its capacity (specialized knowledge in malaria control) in a manner it deems necessary for reducing the burden of malaria in Rwanda? Does the NMCP have authority to draw implementation plan for malaria

control and enforce those plans ? (This question might be posed only to non-governmental actors that closely work with the NMCP)

23. What role do politicians play in malaria control? How does the NMCP interact with politicians and political institutions such political parties and the parliament? Are politicians involved in day-to-day activities of the NMCP in Rwanda and why? Is implementation of malaria control programs politicized? (This question might be posed only to non-governmental actors, PMI, and GF)

Autonomy-related questions

9. Does the government have a priority list in relation to malaria control that internal as well as external agencies are required to support and/or adhere to?
10. Why is funding channelled through the government (This question will be posed to the MOH, MoFPED) How did the policy to channel resources through the government evolve? (This question will be posed to PMI, GF, UNICEF, and WHO officials)
11. Does the government have information on and authority over who is doing what and where and with how much funding in relation to malaria control? (This question will be posed to the NMCP/MOH)
12. Are there instances whereby internal or actors have defied government direction in malaria control? What actions did the government take to address it? (This question will be posed to the NMCP/MOH)
13. Can you tell me about your interaction with GF/PMI/WHO/UNICEF /INGOs on malaria control policy? Who is involved in setting policy? When consulting with these external actors, how did you interact with them? Did you have meetings? How frequently? Who attended?
14. What are the areas of agreement between you and GF/PMI/WHO/UNICEF /INGOs? Were there any issues on which you and these external actors disagreed? If so, what? Did your policy/priorities/implementation change as a result of your consultations with these actors?
15. Did you have to apply for funding from the GF/PMI/WHO/UNICEF /INGOs? If so, who was responsible for making this application? Can you tell me about the application process? Who participates in the application process?