

# TACKLING DEADLY DISEASES IN AFRICA: KEY CONSIDERATIONS FOR EPIDEMIC RESPONSE AND PREPAREDNESS IN UGANDA

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## EXECUTIVE SUMMARY AND KEY IMPLICATIONS

Uganda faces a high burden of communicable disease alongside a growing burden of non-communicable disease. While its surveillance and response systems are strong, there are key gaps highlighted in this brief, particularly in implementation and in rural parts of the country. Key implications for epidemic preparedness and response are presented here.

- The private health sector is largely unregulated and uncoordinated, yet it represents roughly half of all health services in Uganda.
  - In the short term, outbreak response teams can engage a wide array of private health sector actors: ‘drug shop’ owners and staff, private health facility doctors and nurses, and traditional healers. They can be provided with training and mechanisms to link into an outbreak response system.
- Traditional healers, spiritual healers, and herbalists are key actors who provide complementary and alternative medicine services in Uganda. Healers often practice more than one of these and specific beliefs and practices vary by cultural group.
  - There is a need for a systematic assessment of each culture’s health beliefs, local etymologies, and understandings of disease is necessary.
  - Traditional healers should not be stigmatised or treated as ‘less than’ health providers. Respecting differences in belief and medical practice can help establish collaborative relationships for better epidemic control.

- **Academic institutions play a key role in providing technical expertise** to the Ministry of Health, District Health Offices, and other non-governmental actors. Local social scientists can leverage existing research and in-country experience to provide rapid insights for outbreak response.
  - It is important to liaise with relevant local social scientists to provide insights on context, history, and political economy of the area where the outbreak is situated.
- **Community trust in epidemic response is a vital aspect of how and when communities take up public health guidance.** Meaningful community engagement is also key.
  - To improve trust, there should be transparency and honesty in terms of what needs to be achieved. Public health guidance and health services should be adapted to different populations, in terms of their cultural preferences and livelihood constraints.
  - Engaging with trusted interlocutors will be one way to improve community buy-in to response activities. This may include NGOs, other community-based organisations, religious leaders, or local leaders, depending on context.
- **The identification of vulnerable populations depends on context,** and should occur at the local level. However, there are key considerations for vulnerable populations, including:
  - Vulnerabilities of urban poor, border populations, refugees and displaced people, the Karamojong, youth, and women and girls, should be considered. Epidemic response actors should include specific ways to mitigate vulnerabilities during an outbreak. For example, consider the ways that caregiving can put women at heightened risk of disease.

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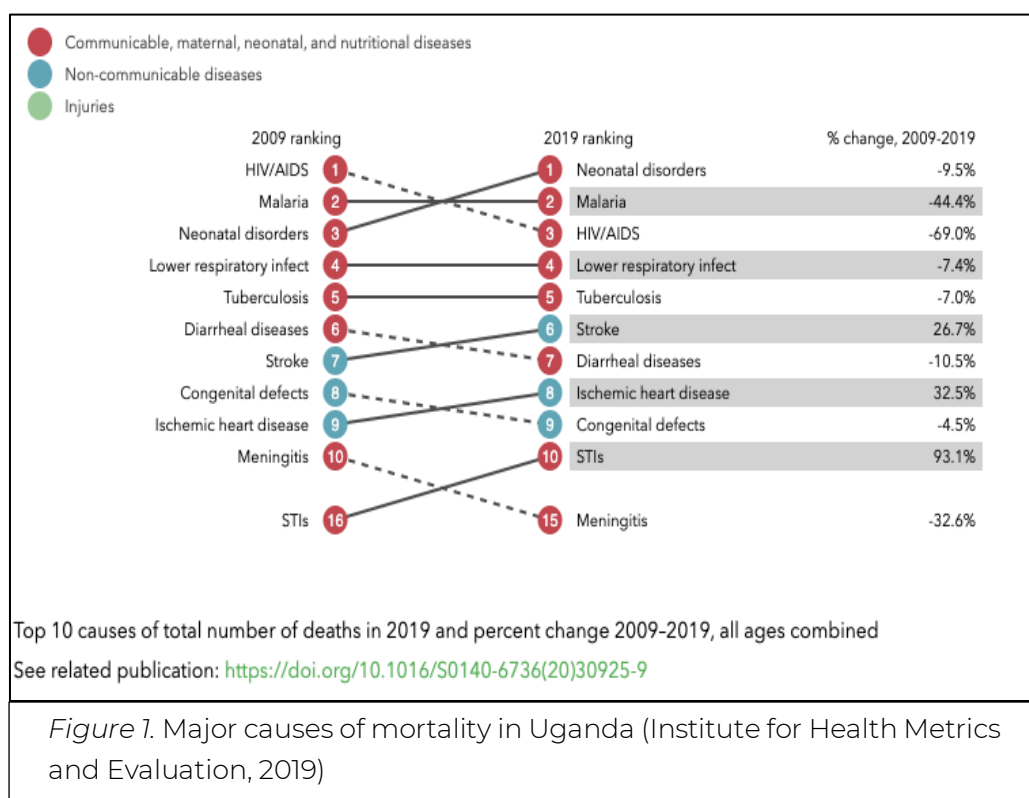
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# HEALTH SYSTEM

## BURDEN OF DISEASE

Uganda's life expectancy at birth is 68.2 years (66 years for men, 70.5 for women).<sup>1</sup> The under-five mortality rate<sup>a</sup> is 45.8 deaths per 1,000 live births.<sup>2</sup> Uganda's burden of disease is dominated by communicable diseases, which account for over 50% of morbidity and mortality.<sup>3</sup> The country faces major infectious and vector-borne disease threats (Figure 1), including tuberculosis (TB), bacterial, diarrhoea, hepatitis A and E, typhoid fever, malaria, dengue fever, sleeping sickness, and schistosomiasis.<sup>4</sup> It has a high HIV prevalence, although it reduced from 25-30% in the 1980s<sup>5</sup> to 5.7%<sup>6</sup> today. While anti-retroviral therapy (ART) is free and widely available especially in urban areas, HIV/AIDS remains one of the top ten causes of death in the country. There is also a growing burden of non-communicable diseases (NCDs), including mental health disorders.<sup>3</sup> Maternal and child health also remain a key concern, although much progress has been made since 2000. Rural areas remain affected by neglected tropical diseases (NTDs), reflecting wider disparities across the country between urban and rural areas.<sup>3</sup>



<sup>a</sup> Probability of dying by age 5 per 1000 live births.

## PUBLIC HEALTH SYSTEM

The modern public health system emerged from a dual system of primary health care and 'missionary medicine' developed in the colonial era. The former sought to improve the health of 'the people' and prevent the spread of disease, while the missions were more focused on individual-level health and curative aspects of disease.<sup>7</sup> The contemporary health system in Uganda is also pluralistic.<sup>8-11</sup> It entails both a public and private biomedical system that operates alongside other private alternative healing systems available to the population.<sup>12-14</sup> The public sector accounts for 44% of services.<sup>3</sup> In 2000, Uganda began applying a Sector-Wide Approach (SWAp) to improve coordination and harmonisation of support for health systems strengthening and to align with global initiatives and priorities.<sup>3</sup> Uganda's

health sector is mainly financed by households (41%) and development partners (42%), with smaller contributions coming from the government (16%).<sup>15</sup> Uganda is a recipient of funds from the GAVI Alliance, the Global Fund to Fight AIDS, Tuberculosis and Malaria, and other mechanisms. Donor funding (70%) is primarily allocated to HIV, TB, malaria and sexually transmitted diseases (STDs). The health sector remains heavily dependent on disease-specific financing.<sup>15</sup> Uganda's health system faces many challenges. Rapid population growth fuelled by high fertility rates, combined with a high burden of disease, continues to strain the current health system.<sup>16</sup>

The public health system in Uganda is tiered with a decentralization structure that mirrors the administrative governance structures.<sup>17</sup> Health facilities in Uganda are classified into seven levels based on the services they provide and the catchment area they serve. The health facilities are designated as Health Centre Level one (HC I) to Health Centre Level four (HC IV); and General Hospital, Regional Referral Hospital and National Specialized Referral Hospital.<sup>18</sup> At the district level, the health system is composed of different structures where the lowest level within the community is Health Centre I (HC I) (composed of Village Health Team members) followed by Health Centres II, III, IV.<sup>17</sup> This ranking is based on population size in the catchment area, ranging from HC I where each Village Health Team VHT serves approximately 1000 persons or 25 households in less densely populated areas.<sup>17, 18</sup>

### Box 1. Uganda's Health System

- The health system is pluralistic, with public, private, and traditional forms of health services.
- Health financing is largely donor-led, and donor funding is mostly allocated toward specific diseases (HIV, TB, Malaria, etc.).
- Health access is largely determined based on residence, with large disparities between urban and rural areas.
- User fees were introduced in the 1990s to cover curative services, but these were abolished in 2001.
- The private and traditional health sectors are largely un- or under-regulated, but make up at least half of the country's health system.

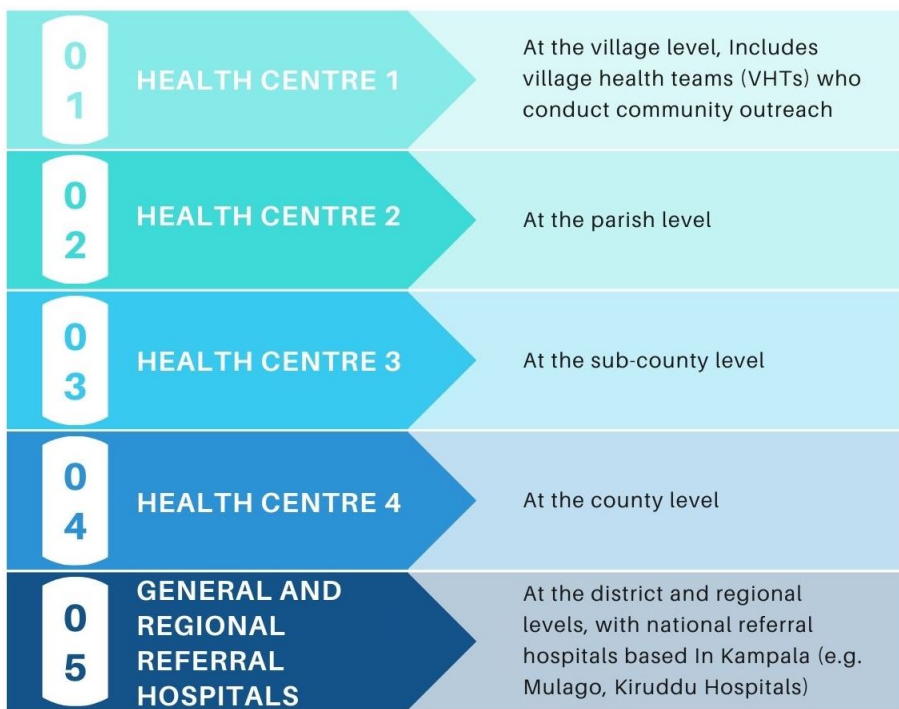


Figure 2. Public health facilities in Uganda (source: authors)

### Academic institutions in the health system

Academic institutions play a large role in Uganda's health system, particularly in terms of providing technical expertise. This involvement provides a backstop in terms of technical support to both government ministries and departments, NGOs and development partners, and emergency response to a health crisis.<sup>19, 20</sup> Technical expertise has been in the form of knowledge generation (research), policy formulation, and programme design.<sup>21, 22</sup> However, it is only in recent history that they have diversified away from the biomedical health perspective to other health components that are key to supporting epidemic response. The role of academic institutions has been crucial including in setting up systems for response.<sup>20, 23, 24</sup> In the case of HIV for example, Makerere University working collaboratively with the Ministry of Health and other stakeholders in the private sector, established the Joint Clinical Research Centre (JCRC) which has greatly contributed to the HIV response.<sup>25</sup> During the current COVID-19 pandemic, academic institutions have contributed to innovations including in prevention and providing guidance on tackling the social issues around pandemics.<sup>26</sup> Working with local social scientists is key to addressing the social dimensions of epidemic response. They have also provided extra manpower to address staffing gaps in the health system particularly through internships.<sup>27</sup>

## PRIVATE HEALTH SECTOR

The private health sector is comprised of the private not-for-profit (PFNP) health care providers, private health practitioners, clinics, and hospitals, and traditional and complementary medical practitioners. Together, the private health sector accounts for roughly 50% of health care delivery.<sup>15</sup>

Despite this, Uganda lacks a governance structure to manage a mixed health delivery system.<sup>16</sup> As a result, the country has a largely unregulated private sector<sup>28</sup> with varying standards for laboratory practices, pharmaceuticals, and other

health services. This is particularly of note in rural areas, where expired drugs can be found for sale in pharmacies or health facilities. A baseline survey of the pharmaceutical sector found that 21% of public facilities and 10.5% of private pharmacies had 1 or more expired drugs on their shelves.<sup>29</sup>

### Box 2. The role of the private sector in fighting disease outbreaks

In 2017, an outbreak of Marburg Virus Disease occurred in Eastern Uganda in Kween District on the border with Kenya. The Ugandan government quickly responded with rapid diagnosis, testing and tracing of the index case, and isolation for any contacts. Critical to this response was the private sector, which aided in identifying and containing the outbreak. The private sector, while integral to health security, has not sufficiently been engaged in Uganda's outbreak response. The private sector can engage with the public sector and civil society to address gaps in epidemic preparedness, through supply chain management, communications, and research and development. (see Osewe & Mensah, 2017)

### Private Not-For-Profit (PFNP)

PFNP health care providers include organisations founded and run by religious groups, NGOs, or other philanthropic organisations. The majority of the PFNP facilities fall under three umbrella organisations: the Uganda Catholic Medical Bureau (UCMB), the Uganda Protestant Medical Bureau (UPMB), and the Uganda Muslim Medical Bureau (UCMB).<sup>30</sup> Together, these three entities own 78% of the PFNP facilities in the country.<sup>31</sup> These organisations commonly work with government and other counterparts and engage in work beyond direct health provision, such as advocacy, health education, or community engagement. A considerable percentage of these facilities are located in rural areas.<sup>31</sup>

### Private for Profit (PFP)

In accordance with the Ugandan Ministry of Health (MoH) definitions, the PFP sector includes all health providers (e.g., clinical, dental, diagnostics, pharmacy) who provide services outside of the public, PFNP, and traditional health sectors.<sup>31</sup> This definition focuses on formal private health providers, the majority of which are pharmacies or 'drug shops,' which are very common and more widely available than health facilities or clinics.<sup>32</sup>



PFPs provide mainly primary level outpatient services, including curative services such as the treatment of common illnesses, malaria, or pneumonia. Twelve per-cent of the sector includes Health Centre IV facilities, operating as smaller hospitals with inpatient care and surgical capabilities.<sup>32</sup> PFP facilities tend to be located around urban areas.<sup>32</sup>

### **Traditional healers, spiritual healers, and herbalists**

There are three main categories of traditional medical practitioners in Uganda, including traditional healers, spiritual healers, and herbalists, although their practice varies by region. However, healers often engage in more than one of these practices. Traditional healers are widely consulted for treatment of various illnesses, which may be biological or spiritual. Traditional healers<sup>33</sup> rely on local knowledge handed down over generations.<sup>9</sup> This traditional medicine, or 'complementary and alternative medicine' (CAM) knowledge is based on indigenous beliefs, local plants and herbs, and spiritual understanding.<sup>34</sup> It refers to practices based on these beliefs, knowledge, and skills recognised by traditional communities to provide healthcare through the use of herbs and other naturally occurring substances. Spiritual healers, on the other hand, manage illnesses caused by spiritual disturbances, and attribute their powers to ancestral spirits that previously occupied the region.<sup>35</sup> Lastly, herbalists use plants, herbs, and other natural substances to treat and cure a variety of illnesses. These methods usually reflect social, cultural, and religious practices embedded in local beliefs.

#### **Box 3. Engaging traditional healers for epidemic response**

Traditional healers are often portrayed as obstacles to epidemic response and control. However, it is important to engage traditional healers as partners in epidemic response, given their role on the 'front lines' of health care in Uganda. The CDC worked with Ugandan counterparts to train traditional healers how to identify symptoms of the plague in northwest Uganda. In this rural region, community members often turn to traditional healers and herbalists as a first point-of-contact for illness. The CDC now has a network of traditional healers in the region who have referred more than 150 patients to local hospitals and their work stopped a case of pneumonic plague from spreading further. (see Doucleff, 2013)

There is no legal framework for the practice and use of traditional medicine in Uganda and therefore, traditional medicine is largely unregulated. However, the National Health Policy mandated in 1987 that all traditional herbalists and other practitioners must register.<sup>34</sup> Local government officials allow traditional practitioners to operate through the payment of tax or other association fees, but this varies by district and locale.<sup>34</sup> Despite this lack of clear regulation at the national level, traditional healers and herbalists operate openly. Spiritual healers and 'witch doctors,' on the other hand carry some stigma and operate less openly.<sup>34</sup>

## HEALTH SEEKING AND LOCAL EXPLANATIONS OF DISEASE

### Health seeking behaviour

Several key factors affect health seeking behaviour in Uganda, including access and availability of health services, trust in health care providers,<sup>36</sup> religious and spiritual beliefs, and local cultural understandings of disease, which are discussed in this section.<sup>37-42</sup> Higher income levels have been found to be associated with increased health care usage, especially for women.<sup>43</sup> There is also evidence that levels of education are consistently associated with preferences for private health care in the country, indicating negative attitudes toward the public health sector.<sup>43</sup>

#### Box 4. Health-seeking behaviour and Rift Valley Fever (RVF)

The AViD project recently worked with NGOs in southern Uganda to respond to zoonotic diseases, including RVF, and understand the role of health-seeking behaviour. The project identified who community members turn to for health services, finding that traditional and spiritual healers are relied upon and trusted as sources of care not only for human health, but also animal health concerns. To detect outbreaks earlier, the project recommended simple referral pathways for traditional health care providers to link farmers to veterinary professionals in case zoonotic disease symptoms are seen. A key lesson is the importance of acknowledging and engaging with alternative care providers. (see Bowmer, 2020)

### Health care access

Vulnerable and rural populations are the least able to access Uganda's formal health system, given its patchwork coverage outside of urban centres. While health facilities at level I or II are most commonly used, pharmacies and drug shops are also a point of contact as most medications are available without a doctor's prescription.<sup>37</sup> One study in three rural districts found that 95.7% of all 445 facilities surveyed were private, while just 4.3% were public.<sup>44</sup> Of all the households that had experienced illness in the last month, care was sought in 54.1% of cases.<sup>44</sup> Many challenges have been reported in accessing health facilities, from regular drug stockouts, to high cost of services, and long distances to those health facilities.<sup>37, 45</sup>

Due to this paucity of public health care in rural Uganda, health care related internal migration and rural-urban movement play an important role in health-care seeking. Movement from rural to urban areas to bypass referral systems is common especially when the situation is severe.<sup>46, 47</sup> Biomedical health infrastructure in the urban settings is more readily available with quality services compared to the rural areas.<sup>48, 49</sup>

## Religion, spiritual beliefs, and health pluralism

Ugandan society is predominantly Christian, with Catholic (39.3%), Anglican (32.0%) and Pentecostal (including Born Again and Evangelical) (11.1%) faiths being the most common.<sup>1</sup> A large proportion (13.7%) of Ugandans also practice Islam. For many people, their faiths are practiced in combination with traditional beliefs particularly with regard to healing processes. It is common to find persons seeking care from multiple sources that include both biomedical, spiritual and traditional herbal or spiritual healing.<sup>35, 50</sup> As such, for illnesses with unknown or unclear aetiology, many take a mixed approach to health care seeking, relying on more than one form of care such as both traditional healers and medical doctors. This may sometimes be detrimental to efforts to control epidemics if approached from a conventional public health lens, which focuses predominantly biomedical approaches.<sup>35</sup> However, as discussed above, it is important to include both medical and traditional health providers in an epidemic preparedness and response plan.

### Box 5. Beliefs and cultural logics

- Major religions in Uganda include Christianity and Islam. Many people practice both an Abrahamic faith and a traditional one. This is not seen as contradictory or paradoxical.
- Past research has shown how many turn to traditional healers to manage mental and chronic health conditions, while public health and biomedicine are typically preferred to manage infectious disease.
- Evidence from past Ebola epidemics demonstrate cultural logics that often match epidemiological standards for disease control.
- Health enhancing beliefs and practices that are indigenous to an area can be bolstered during an epidemic response. Working with a community in this collaborative way could result in a more trusted response.

## Local understandings of infectious disease

These pluralistic beliefs are emblematic in anthropological and other social science research on cultural logics underpinning disease in Uganda.<sup>8, 35, 40, 51, 52</sup> Research in Uganda has produced a rich understanding of cultural logics related to illness and disease. However, treatment preferences vary and are influenced by perceptions about the cause of illness.<sup>53</sup> Mental health, chronic illness, and infectious disease are managed differently, and often more than one form of treatment is sought.<sup>54</sup> Cultural logics and beliefs are also not static in relation to disease, and therefore these beliefs should be considered as dynamic, subject to change, and relational to forms of trust in authority or health providers.<sup>51, 55</sup> This is evident in the HIV epidemic, where local constructions of AIDS changed and shifted according to the progress of the epidemic. The initial construction of the disease changed from what local authorities had put forth in terms of associated HIV and poor moral behaviour.<sup>56</sup> A hybrid model emerged that incorporated biological features of HIV with these moralistic framings. Similarly, in Northern Uganda's Ebola epidemic, there was a shift in how Ebola was understood as the epidemic progressed. At first, it was thought to be tied to spiritual causes, but as it became clear that the cause

was infectious, communities began to rely on their own protocols for epidemic containment and isolation of the sick.<sup>55</sup>

Subscribing to pluralistic models of healing influences the models of disease, health and wellbeing that community members in Uganda adopt.<sup>9, 35</sup> However, public health remains critically important in epidemic response.<sup>53</sup> Infectious diseases are often managed through preferred routes of public health service delivery and biomedical care. In cases of uncertainty during disease outbreaks, a tangible commodity like medicine may provide a concrete pathway to healing.<sup>57,58</sup> Research on the HIV epidemic in Uganda showed how patients sought care from multiple providers, both biomedical and traditional, but there was often an unwillingness to disclose herbal medicine use to biomedical doctors.<sup>59,60</sup>

A growing literature on the way community members describe the models of healing they adopt exists particularly for disease outbreaks and epidemics.<sup>61</sup> Hewlett and Hewlett (2007) conducted ethnographic research during an ongoing Ebola epidemic in Northern Uganda, in Acholi land. They described the Acholi cultural model for epidemics, which described diseases as “coming like the wind,” meaning coming quickly and with wide spatial distribution.<sup>55, 62</sup> They recommended that all health care workers should understand indigenous cultural models for disease. They also provided a framework to describe health enhancing versus health lowering beliefs and practices. Health enhancing beliefs and practices can be bolstered by local epidemic response, to design a response that is consistent with a local cultural logic, with the caveat that these are subject to change. The Acholi, and many other Ugandan populations, have an extensive protocol for controlling epidemics, from isolation to sanitation. If intervention teams view local communities as allies, local communities will in turn likely want to help with control efforts.<sup>55</sup>

## **INFECTIOUS DISEASE OUTBREAKS, RESPONSE AND PREPAREDNESS**

### **DISEASE RISK AND VULNERABILITY**

#### **Endemic disease and seasonal emergence**

Uganda is an ecological hotspot with multiple factors contributing to its vulnerability to disease epidemics. It is geographically near the Congo Basin, faces climate change pressure on its ecosystems, and hosts a large number of international and regional travellers as well as refugees.<sup>63</sup> Recent political instability compounds the country's vulnerabilities<sup>64</sup> and poses a threat to future governance of any epidemic response.

Recent national disasters, including locusts, food shortages,<sup>65</sup> landslides, and flooding<sup>66</sup> also contribute. Uganda has a long wet season and hot yearly temperatures that shape the country's vulnerability to disease threats.<sup>67</sup> As water sources increase, water-borne illnesses (typhoid, cholera) spread at a faster pace, soil borne illnesses (hookworm, roundworm)<sup>68</sup> spread more easily, and mosquitoes breed rapidly.<sup>67</sup> During the dry, hot months, more respiratory diseases emerge due to air-borne illnesses and pollution. One study on the plague (*Yersinia pestis*) in Uganda found that climate was a useful predictor for disease emergence, as plague emerged more frequently in the wet season. Uganda also lies in the El Nino Southern Oscillation, which causes more extreme weather events and has been correlated with a more severe malaria outbreak, outbreaks of cholera and Rift Valley Fever.<sup>67</sup> Further, Uganda had the highest number of outbreak events in the WHO African region in 2018. This could be related to its surveillance and reporting systems, but also reflects the burden of disease in the country.<sup>69</sup>

## VULNERABLE POPULATIONS

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### Urban poor

A key challenge in Uganda is managing rapid urbanization, where urban inequality (see Appendix) and rising numbers in informal settlements present twin challenges to urban management and health.<sup>70-73</sup> Meanwhile, there has been a lack of coordinated urban development.<sup>74-76</sup> In response, ad hoc spaces ballooned to house the many urban migrants.<sup>77</sup> Ugandan informal settlements are marked by lack of land tenure, poor housing conditions, and inadequate access to basic services and amenities, engendering high levels of vulnerability.<sup>78</sup> Low-income urban populations remain one of the most vulnerable in Uganda where they face multiple, compounded vulnerabilities related to social determinants of health such as economic insecurity, social marginalisation, over-policing, lack of water and sanitation, unstable housing, and food insecurity.<sup>78-80</sup> Low-income urban residents face higher rates of HIV prevalence, with urban women particularly vulnerable.<sup>81</sup> TB prevalence is also unacceptably high in informal settlements, with a prevalence of 3.5%.<sup>81</sup>

### Border populations

Many of Uganda's borders are porous and border populations cross mainly through informal points of entry.<sup>82-84</sup> These borderlands are also characterised by heavy cross-border traffic due to trade and other livelihood activities, as well as humanitarian emergencies that have led to a large numbers of refugees in Uganda.<sup>85</sup> Such social events have led to increased risk of infectious diseases as well as other health problems. Vulnerability among these groups remains high and some evidence suggests that during epidemic outbreaks they have been labelled as a cause of an outbreak.<sup>83</sup>

The border districts of the western part of Uganda have borne the brunt of most epidemics and outbreaks of infectious diseases. Between 2017-2018, for example, 8 disease outbreaks were identified, including anthrax, Congo-Crimean Haemorrhagic Fever (CCHF), Marburg Virus, Rift Valley Fever (RVF), measles, cholera, meningitis, and rubella. All eight outbreaks included border districts, predominantly in the west.<sup>86-89</sup> The Equatorial rain forest vegetation coupled with the Rift Valley and Rwenzori mountain ranges that form part of the border with Rwanda and DRC provide the perfect context for human-animal interaction, known to be a major factor in many emerging and re-emerging diseases.<sup>88</sup> In response to COVID-19, Uganda has had stronger containment measures in border communities for longer periods of time, with restrictions on movement, curfews, and contact tracing.<sup>90</sup>

### **Refugees and displaced people**

Uganda is the fourth largest refugee hosting nation in the world, as more than 1 million refugees arrived between 2016-2018 from various countries.<sup>91</sup> Refugees are largely concentrated along the Uganda-South Sudan border. The government has sustained refugees' rights to employment, entrepreneurship, and free movement since 2006.<sup>92</sup> The country has also experienced historical internal displacement in the North, long-standing inflows of refugees from neighbouring countries, and constant circular flows across borders in border communities.<sup>85, 93</sup> Large numbers of northern Acholi people were displaced into camps during the Lord's Resistance Army insurgency between 1986-2006, although they have since returned to the community.<sup>94</sup> While many refugees live in refugee camps, some are integrated into Uganda's cities or in rural communities. These urban refugee populations may be less well connected to local support structures and may face challenges accessing services and information.<sup>95</sup> There are regional differences, as many refugees in West Nile in Northwest Uganda live in refugee camps rather than the region's cities.

#### **Box 6. A prolonged cholera outbreak in Kyangwali refugee settlement, Hoima District, Western Uganda, 2018**

On February 23, 2018, a cholera outbreak was declared in Kyangwali Refugee Settlement in Western Uganda, affecting more than 60 people. The outbreak was linked to inadequate water supplies in the settlement, where there was only one official water source (e.g., tank water). Because of long queues at the tank, residents resorted to alternate water sources (e.g., stream or spring water), regardless of how safe it was perceived to be. Nearby DRC was also facing a cholera outbreak at the time, and this was likely the source of crossover into Uganda. However, because of a lack of clean water and sanitation, cholera was able to spread into the settlement. (Monje et al., 2020)

## **Karamojong**

The Karamoja region<sup>b</sup> in northeastern Uganda is one of the most marginalised and vulnerable in the country.<sup>96–99</sup> Its population, the Karamojong, face lower health indicators, including an infant mortality rate of 123 per 1,000 live births compared to the national average of 76 deaths. The region is primarily inhabited by pastoralists, with a history of small-scale conflict between other pastoralist groups in the area. The region faces frequent drought leading to chronic food insecurity<sup>97</sup> and widespread economic insecurity. Various programs have focused on distributing food aid, building livelihood resilience, diversifying sources of income, and improving technologies to increase food security. Major disease risks typically relate to human-animal interactions, including Rift Valley Fever<sup>100</sup> and Marburg virus disease.<sup>101</sup> Cholera outbreaks have also recently occurred. In August 2020, an outbreak of cholera in Kotido District affected over 100 people.<sup>102</sup> The disease spread due to low access to improved sanitation in the district, with only 4% able to access latrines. In the last 10 years or so, the World Health Organization has worked to scale up epidemic preparedness and response in Karamoja, where large numbers of emergency, cholera and meningitis kits, and other field supplies were stockpiled, although the region remains underserved.<sup>103</sup>

## **Youth**

Uganda is undergoing demographic change driven by rapidly increasing numbers of youth in the country.<sup>104–106</sup> It is also experiencing political upheaval (see Appendix) facilitated by economic policies and exclusionary development, which maps onto a youthful population. Such struggles have been united since 2017, under the leadership of the popular opposition leader determined to unseat President Museveni.<sup>64, 107</sup> Member of Parliament Robert Kyagulanyi grew up in one of Kampala's informal settlements, Kamwokya. He taps into youth frustrations with socio-economic inequality.<sup>64, 108–110</sup> Political tensions are likely to increase in the run up to the 2021 elections.<sup>108</sup> This has implications for the urban poor's trust in central government and perceptions of genocide amongst opposition supporters, as has occurred with Ebola in Sierra Leone and Guinea. In the wake of these elections, there is likely to be conflict and continued mistrust in the government, regardless of the outcome.

## **Women and girls**

Many local societies are structured by heteronormative and patriarchal logics. Men are expected to be economic providers, heads of household, and decision-makers.<sup>111–113</sup> As per normative social ideals, gender hierarchy and interdependence is seen as essential for

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<sup>b</sup> The Karamoja region includes Kaabong, Kotido, Moroto, Napak, Abim, Nakapiripirit, and Amudat districts.

social stability and personal well-being.<sup>111, 114</sup> In the Western border districts in Uganda, among Banyoro, Batoro, Bakonzo, and Bafumbira populations, everyday life reflects the observance of patriarchal norms, where men tend to have more power and dominance especially in access to resources, caregiving, and family life.<sup>115</sup> Women are often expected to serve as caregivers both at home and in health care settings, while men often spend more time away from home in an attempt to provide for the family. Socio-cultural expectations include the following gendered domains that may influence women's risk of getting sick:

- Childbearing as part of women's sphere, where for instance only women are allowed to be in the room as supporters or birthing attendants.<sup>116</sup>
- Women are the caretakers for the ill in a household, and therefore will cook, clean, and provide informal healthcare.<sup>117, 118</sup>
- During burial rituals women are often more involved in the tactile aspects of burial that involve close contact with the body including cleaning it, performing rituals, and watching over the body prior to burial. Men have other ritual roles in burial.<sup>119, 120</sup>

These gender roles and expectations of women extend to the economic sphere including engagement in diverse livelihood strategies.<sup>121-123</sup> In rural areas of Uganda, women are more likely engaged in agricultural or small-scale economic activities, including crop and small livestock farming, cottage industries (e.g. local alcohol brewing, handicrafts), some farm labouring, and market vending or trading.<sup>123</sup> Therefore, with additional responsibilities women's diverse gender roles should be considered during an outbreak response, in addition to caregiving.

## EPIDEMIC AND OUTBREAK RESPONSE GOVERNANCE

### Disease surveillance

Uganda has strong surveillance mechanisms and actors (Table 1) to engage in ongoing disease surveillance and rapidly deploy targeted surveillance in the case of an outbreak or epidemic. The country adopted and has been implementing an Integrated Disease Surveillance (IDSR) strategy since 2000.<sup>124, 125</sup> This was implemented with the goal of building capacity to detect,

#### Box 7. Epidemic Response

- Uganda has implemented an Integrated Disease Surveillance strategy which has improved disease surveillance and linkages to other parts of the health system.
- Uganda's epidemic response is activated through its Public Health Emergency Operations Centre and the National Task Force, which activates a multisectoral collaborating and planning body to manage a disease.
- Uganda has extensive experience in managing epidemics, but the funding and manpower required often detracts from health systems strengthening.
- Trust in the response varies based on the type of stakeholder, but there are typologies of mistrust based on relationship with the government. There is often mistrust of the government (the army, government health workers), but international stakeholders are not generally mistrusted.



report, and respond to public health emergencies. Whilst the program was initially successful, insufficient funding undermined these goals.<sup>124</sup> The program was revitalised in 2012, with widespread training of health workers, district rapid response teams, and district task forces. IDSR implementation has been coordinated and monitored by the NTF in collaboration with the WHO Country Office. Through improved funding, comprehensive training, and the engagement of local district leadership, the program has been successful. The engagement of local leadership improved ownership, accountability, and sustainability of the programme.

**Table 1. Key actors in surveillance under the Ministry of Health<sup>63</sup>**

- Division of Health information
- Public Health Emergency Operations Centre
- Uganda Public Health Fellowship Program (UPHFP)
- National Reference Laboratories (Uganda Virus Research Institute, UVRI)
- Uganda National Health Laboratory Services (UNHLS)
- *Surveillance of zoonotic diseases*: National Animal Disease Diagnostics and Epidemiology Centre (NADDEC) under Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and the Zoonotic Disease Coordination Unit (ZDCU)

### Epidemic response infrastructure

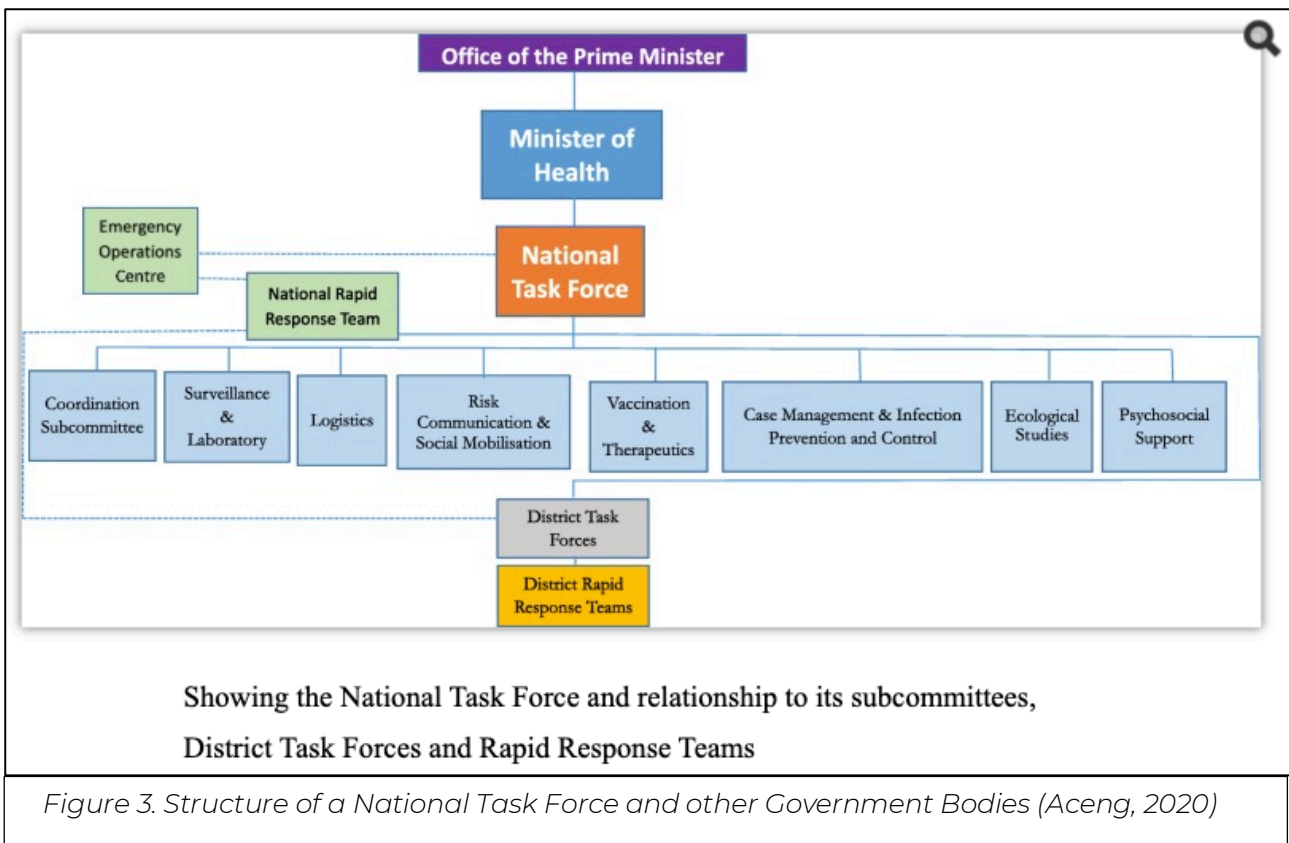
Uganda is an important site to understand the dynamics of epidemic response and local perceptions of that response. When an epidemic is in its early stages, Uganda’s national government initiates a multi-step plan to manage it.<sup>126</sup>

In Uganda, epidemic and emergency response is structured around the public health system and managed through a National Task Force and a number of sub-committees. The Uganda Ministry of Health (MoH) activates the Public Health Emergency Operations Centre (PHEOC) and the National Task Force (NTF) for public health emergencies to plan, guide, and coordinate preparedness and response to epidemics in the country.<sup>26,127</sup>

The NTF is represented by multiple sectors and disciplines, including key ministries, agencies, departments, partners, and stakeholders who are engaged through the main task force and its various subcommittees (Figure 3).<sup>26</sup>

#### Box 8. Multisectoral leadership for Ebola response

The NTF is chaired by President Museveni, which gives it the political clout that is critical to its successes. Political leadership and commitment played a large role in containing Ebola in Uganda during the DRC epidemic (2018-2019). Investments in infrastructure, capacities, and institutional networks played a key role in containing its spread. The NTF is led by multiple sector leads, which ensures integration across all pillars of preparedness and response. In 2019, the Ministry of Health and its partners carried out a full-scale simulation exercise that enabled the country to identify gaps and fix these gaps prior to COVID-19.



The NTF selects an Incident Management Team (IMT), which is made up of a National Rapid Response Team (NRRT) that supported activation of the District Task Forces (DTFs) and District Rapid Response Teams (DRRTs). The IMT manages preparedness, resource management, communication, and information management. The IMT includes six subcommittee team leads, which can vary based on the emergency: 1) epidemiological surveillance, 2) case management and infection prevention and control (IPC) including safe burials, 3) risk communication and community engagement, 4) vaccination, therapeutics, and research, 5) emergency coordination, and 6) logistics.<sup>26</sup> Subcommittees ensure sound evidence-based decisions are made, mobilise the population to contribute resources to respond to an emergency and the IMT helps to ensure cohesion, adherence and enforcement of the Government decisions.

In the case of disease outbreaks and epidemics, biomedical services are integrated as part of the health services delivery system right from the national (central planning) to the district and local community level. Therefore, responsibility for the delivery of health services, including epidemic control rests with local district governments, each operating under the mandate of the national task force.

## Epidemic response coordination

The MoH works with World Health Organization (WHO) and Africa CDC guidance as well as other international organisations (UNICEF, International Federation of the Red Cross, etc.) to enhance community-based surveillance systems, develop and disseminate risk communication messages, engage communities, reinforce disease emergency screening and infection prevention measures at Points of Entry (PoEs) and in high-risk health facilities, construct and equip isolation and treatment units, and establish coordination and procurement mechanisms.<sup>26</sup>

### Box 9. Political economy of epidemic response in Uganda

It is often said that epidemics prey on society's fault lines. Inequalities become starker as epidemics allow the wealthy to continue to thrive, while the poor not only bear the brunt of the disease burden, but also the economic impact of any public health measures. This is clear during COVID-19 and also during other outbreaks in Uganda, such as Ebola. With Uganda's lockdown, the urban poor suffered disproportionately as informal workers were suddenly left jobless. Many informal settlement residents, who stay in lodges or guest houses and pay daily rates for their housing were also left homeless when these closed.

Moreover, COVID-19 has mapped onto a particular political moment in Uganda. With ongoing political tensions, President Museveni recently used COVID-19 public health measures as pretext for arresting the opposition leader during a rally. This serves to erode public trust not only in the government, but it will have negative impacts on public health guidance in the future. It is imperative that epidemic response is not necessarily 'depoliticised,' which is an unrealistic standard, but that it draws on a better politics that centres human welfare rather than political gain. (see the Annexe for additional detail)

## CASE STUDIES OF EPIDEMIC PREPAREDNESS AND RESPONSE

Uganda has a long and storied history of responding to disease outbreaks in the country. However, this history has also been marked by challenges related to financing, coordination, and community engagement. This section reviews key aspects of disease outbreak management, with specific case studies as appropriate.

### Case Study: HIV/AIDS

Uganda's devastating HIV/AIDS epidemic, which peaked in the late 1980s, set the stage for much of the country's subsequent handling of epidemic diseases and outbreaks.<sup>128</sup> It also set up epidemic response and preparedness as a largely parallel system that is not well integrated with the country's health system and often draws away resources from it.<sup>129</sup> Uganda's response to HIV has 'privileged' the disease in a way that HIV positive individuals are provided with more consistent, free health care than those with other

diseases requiring long-term management. In fact, lessons learned from HIV/AIDS demonstrate the importance of strengthening primary health care (PHC) in the country.<sup>130</sup> This should be a priority alongside epidemic preparedness and response. Uganda has seen large amounts of foreign involvement and investment in its health system, particularly around epidemic response. This is evident in its HIV response, which is now predominantly driven by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR).<sup>25</sup> Uganda was one of the first African countries to publicly acknowledge the urgency of HIV.<sup>131</sup> What emerged was the importance of government willpower, combined with a well-financed and coordinated response. The response has exposed issues with a vertical approach, in what some have called "projectification."<sup>131</sup> In the wake of financing, large AIDS service organisations and smaller NGOs became responsible for HIV prevention, care, and treatment.<sup>132, 133</sup> Much of this work is financed through short-term "projects" which are often designed with the funder priorities in mind. Several lessons emerge from Uganda's HIV response including: 1) a vertical approach<sup>c</sup> to a public health problem should only be implemented in the short-term; 2) the role of the government as a coordinating body is crucial; 3) NGOs and other organisations can fill gaps as needed, but should not take on the burden of an epidemic response; 4) clear political messaging plays a vital role in the effectiveness of a public health response.

#### **Case Study: Ebola (DRC Epidemic: 2018-2019)**<sup>83, 134</sup>

As the epidemic began to unfold in neighbouring DRC, Uganda began to prepare to prevent the spread of EVD across its borders. Uganda's National Task Force focused its effort into categorising districts into high-, mid-, and low-risk areas. High-risk areas primarily included border districts and international points of entry such as Entebbe International Airport in Wakiso District. At the local level, VHTs and IFRC volunteers were engaged to screen individuals, ensure hand washing and temperature checks, especially for travellers across points of entry (PoEs) at the border. VHTs were also engaged to conduct sensitisation and awareness raising activities in local villages and towns. Risk communication messaging was disseminated via radio, television, posters, and social media. However, the Uganda-DRC border is long and porous, and border community members still reported crossing regularly into DRC despite the ongoing risk of Ebola.<sup>83</sup> Individuals often had little choice but to cross into DRC, to fetch water (there was no reliable source of water in one border town), plant and tend to agricultural crops, fish, drive motorcycle taxis, trade at the markets, and conduct other forms of business. While border residents were acutely aware of the risks, they put their livelihood seeking first and

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<sup>c</sup> A vertical approach indicates a disease specific top-down approach, rather than a "horizontal" approach which would integrate into existing health systems.

regularly (sometimes daily) crossed into the DRC. Therefore, studies recommended the importance of 1) engaging local community leaders and organisations as partners in the Ebola response, and 2) providing tailored recommendations in light of livelihood barriers to health-seeking behaviour. Further, key recommendations emerge for the country's epidemic response. While Uganda has clear structures in place for managing epidemic response, in practice, the response to Ebola was often uncoordinated and over-bureaucratic. Fieldwork conducted by the authors of this paper found that district offices were delivered supplies (e.g., hand-washing stations, temperature screening tents) but were not provided with manpower or funds to assemble or use those supplies. Efforts focused at official POEs often miss the many informal POEs along the border. Therefore, efforts should be made to more sustainably and equitably engage border communities as a whole to address any heightened threat they may face during an active outbreak.

### **Case Study: COVID-19**

At the time of writing, Uganda faces relatively few COVID-19 cases (21,409 total cases as of 3<sup>rd</sup> Dec, may be due to lack of testing). However, as in other places, the COVID-19 pandemic has strained and exposed gaps in governance and health systems in Uganda. In Uganda, the recent surveillance structure built for Ebola became a pillar in COVID-19 response, with comprehensive testing and tracing.<sup>135</sup> Much of the health system was redirected toward COVID-19, leaving coverage for other diseases understaffed and underfunded.<sup>130</sup> As the pandemic began to unfold, the national government implemented strict lockdown measures in late March 2020.<sup>136</sup> The government banned public transport, non-food markets, closed its international borders, and instituted a night-time curfew among other measures.<sup>137</sup> The government also began to enforce these directives using military and police force, with several reports of beatings, shootings, and arbitrary detention across the country.<sup>137</sup> The militarisation of the response has exacerbated the underlying political tensions, especially with the upcoming election in February. How this will unfold will have implications for Uganda's society, economy, and health system for generations to come.

## **COMMUNICATION AND TRANSPORT**

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Uganda's infrastructure is patchwork outside of urban areas or major transportation routes. In recent years, communications infrastructure has developed through public-private partnerships with fixed fibre backbone infrastructure covering 50% of districts, 4G mobile networks across all major cities and national parks, and 3G mobile networks elsewhere.<sup>1</sup> Uganda has both road networks (20,544 km) and railways (1,244 km).<sup>1</sup> Mobile phones are widely available and have become a key source of information for rural and urban residents alike. WhatsApp and Facebook are the most popular social media

platforms, and WhatsApp is most frequently used to share news stories or other information.

Uganda's road networks are largely unpaved<sup>1</sup> and face safety hazards, particularly on roads and highways in the North. Roadways in rural areas are patchwork or non-existent. On average, 10 people die per day in Uganda in road traffic crashes, which is the highest in East Africa<sup>138</sup>. Road deaths are costing the country approximately 5% of gross domestic product (GDP) annually.<sup>138</sup> Uganda also faces challenges in electricity access, with less than half (42.6%)<sup>139</sup> of the total population having access to electricity overall with large geographic (60% urban vs. 18% rural) and regional disparities.<sup>140</sup>

## GOVERNANCE AND KEY ACTORS

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Uganda is a presidential republic. The President of Uganda, President Museveni, is both the head of state and head of government.<sup>141</sup> While it is a multi-party system, the role of political parties was restricted from 1986-2005, where political parties could not campaign in elections. The current constitution was ratified in 1995 establishing executive, legislative, and judicial branches.<sup>141</sup> Both the president and members of Parliament are elected every 5 years.<sup>141</sup> The Ugandan judiciary is an independent branch of government. Uganda's 134 districts are each managed by a Chief Administrative Officer (CAO) appointed by the central government, with an accompanying District Health Officer (DHO), District Education Officer (DEO), and other key officers depending on the district.<sup>142</sup>

### Decentralisation

Uganda has one of the most extensive decentralised government structures, which includes a five-tiered local government structure and corresponding fiscal and political decentralisation and local government elections.<sup>142, 143</sup> The highest level (Local Council V) is the division level (just below the municipal or district level), while the lowest level (Local Council I) represents a zone of no more than 1000 people.<sup>143</sup> While this may have decentralized the central government to some degree,<sup>144</sup> the local councils also face a lack of funding, gerontocratic leadership, and lack of independence from the central government.<sup>145-151</sup> The number of districts has also increased from an initial 39 to 134 to increase local access to services provided at the district level, although this is also perceived as a political move to create the illusion of state service provision, which did not happen in reality.<sup>141, 152, 153</sup>

### Customary leadership

The role of a customary leader varies based on long standing social structures and historical political interactions with diverse forms of organisation. Customary leaders, or

'chiefs' were indigenous to some Bantu ethnic groups, and imposed by the British onto other groups, where localised systems of eldership based on the clan often prevailed.<sup>154, 155</sup> Chiefs continue to play a central role among some ethnic groups of Central (Baganda), Western (Banyoro, Batoro) and Eastern (Teso) Uganda. Despite the 'diminishing' role of the customary leaders in governance, the population finds it appropriate and are proud to identify with the customary leadership.<sup>156</sup> Adherence to these forms of authority is spatially specific, but often, chiefs or clan elders may be trusted and respected by the populations they serve and represent. As such, involvement is crucial to the uptake of any directive or measure designed and instituted in response to a health concern as it is with epidemics.<sup>157</sup>

### **Civil society**

Civil society continues to actively engage in 'problem solving' in different aspects of development in Uganda.<sup>25, 158</sup> This has been through direct service provision, technical assistance, and funding to strengthen the health system which is in part due to the history of state divestment and neoliberal policy.<sup>159, 160</sup> Organisations at national (e.g. The AIDS Support Organisation—TASO) and others at both community and international level have been key in addressing issues around epidemic response—strengthening families, transforming community knowledge, behaviour and attitudes towards health and health approaches in the country.<sup>25, 161, 162</sup> They have also supported the establishment of community groups such as village health teams, para-social workers, village saving and loans (VSLA) and other community groups which have been commended for addressing challenges like stigma and discrimination.<sup>163</sup> During health emergencies, community groups can provide important linkages between the epidemic response and communities, as these are often trusted sources of information. See the list of key civil society actors at the end of this brief.

## **COMMUNITY EXPERIENCES AND RESPONSES**

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### **Village Health Teams**

At the community level, epidemic response tasks are performed through the local Village Health Team, who are community health workers with sufficient cultural and geographical knowledge of the affected areas. Their mandate is to implement the activities spelt out by the district task force through the District Health Office. Working together with local administrative and political leaders, religious and cultural leaders, social services institutional leaders (schools, businesses), CSOs and the private sector, community health workers participate in a range of activities to respond to and control epidemics. For instance, these institutions participate in community-based surveillance and case detection, tracking and reporting, creating awareness, information and

education to foster trust in the health system, and responding to any related health needs as they arise.

Community health workers and village health teams (VHTs) are consistently shown to be a trusted source of information in the community, especially when paired with consistent community engagement.<sup>164, 165</sup> VHTs are often the most visible part of the health system, both in rural areas and impoverished urban settings, and are often a first point of contact when someone is ill.<sup>166, 167</sup> Depending on the appearance of symptoms, traditional healers, spiritual healers, or herbalists may also be trusted as appropriate sources of care or linkages for referrals to the public health system.<sup>168-172</sup>

## **Trust**

Amidst the pluralistic health care seeking described above, instances of mistrust in the public health system exist. In areas where disease outbreaks have occurred, evidence indicates that certain sections of the population develop and retain high levels of mistrust in the public health system. For instance, in West Nile, among populations who live close to the DRC and South Sudan border, following the Ebola outbreak of 2018-2019, several community members held negative perceptions about the response efforts, often relating it to ongoing distrust in authority in other social and economic livelihood contexts. However, various actors were perceived differently, with high levels of reported trust in local councillors, NGOs, and village health teams.<sup>83</sup> Lower levels of trust were reported in government health workers. This was based on past negative interactions with government health workers, who were perceived as neglectful or indifferent. Moreover, in the context of Ebola, negative past experiences were compounded by the lack of effective treatment, the community seemed to build on such experiences to further embolden their distrust and misperceptions about the outbreak.<sup>83</sup>

## **Fishing communities**

Fishing communities also present a unique context for mistrust to foster.<sup>83</sup> Trust in authority figures is broadly low due to the historical and political-economic context, whereby the government was perceived to have ended private fishing.<sup>83</sup> The government had clamped down on fishing to mitigate overfishing in Uganda's lakes, but no viable alternative was provided to generate income.<sup>173</sup> Fishing had been restricted to the army and to those members of the public who could purchase costly fishing licenses.<sup>174</sup> Many individuals had gone into debt to afford those licenses, as their families have relied on fish and income from fishing for generations. In fishing communities, trust in authority is therefore quite low, particularly in terms of trust in the government and specifically the military. Therefore, recent efforts to deliver public health communications via the army in fishing communities are likely to face challenges.<sup>175</sup>



## Community-led strategies

A recent project has had success in building community capacity for outbreak response in Uganda, under the Intensified Preparedness Programme (IPP) for Ebola, which was set up in 2015.<sup>176</sup> IPP brought together community-based health ‘shapers’ who had been involved in previous Ebola outbreaks in not only Uganda, but other key affected countries. This included health professionals, community and local leaders, journalists, religious leaders, and traditional healers. These groups were identified as key influencers of the narrative of infectious disease prevention, risk communication, and community outreach. IPP held a series of training workshops to capture insights on assumptions, perceptions, and beliefs of infection control management and outline ways to ‘shift the narrative’ to a more people-centred health paradigm. Participants co-designed a broader approach to epidemic preparedness and response – one that includes socioeconomic and political dimensions, community ownership, and long-term resilience and capacity building. They called for shifting power to communities and promoting a One Health approach.

## ONGOING CHALLENGES AND RECOMMENDATIONS

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Despite a rich history of managing epidemics, the frequency of epidemics in Uganda erodes efforts to invest in the broader health system and achieve universal health coverage.<sup>127</sup> The current model of public health practice in Uganda is predominantly medical and focuses heavily on surveillance and case management rather than a comprehensive model that could include community engagement, or epidemic preparedness and recovery. As we have seen with COVID-19, additional sectors are needed in epidemic planning to address the social, environmental, and economic determinants of disease. Additional investments of funds, equipment and knowledge, are needed into village-level health workers to provide them with additional capacity, protective equipment, and other necessities.<sup>127</sup> Additional short- and long-term recommendations are presented below.

## KEY IMPLICATIONS FOR OUTBREAK AND EPIDEMIC RESPONSE

Uganda faces a high burden of communicable disease alongside a growing burden of non-communicable disease. Its climate and geographic location mean the country is likely to experience additional infectious and zoonotic disease outbreaks, many of which are related to close human-animal interactions and a changing climate. While its surveillance and response systems are strong, there are key gaps highlighted in this brief, particularly in implementation and in rural parts of the country. Key implications for

epidemic preparedness and response are presented below, drawn from the material in this brief

**The public health system is largely donor and household funded.** Its presence is patchwork outside of urban centres. As a result, rural government health facilities are often under-staffed, understocked and far away.

- Improve mobile services for rural residents with community outreach component.
- Advocate for the Ugandan government to improve financing of its health system as a percentage of GDP.
- Train local trusted actors with a long-term community presence (e.g. village health teams, community organisations, traditional healers) to link into early warning mechanisms and disease surveillance.

**The private health sector is largely unregulated and uncoordinated, yet it represents roughly half of all health services in Uganda.** There is an opportunity to improve linkages across the health system for improved disease surveillance and longer-term epidemic preparedness.

- In the short term, outbreak response teams can engage a wide array of private health sector actors: 'drug shop' owners and staff, private health facility doctors and nurses, and traditional healers. They can be provided with training and mechanisms to link into an outbreak response system.
- Uganda has a large number of NGOs, civil society organisations, and community-based organisations that can be better engaged in the response. These organisations are often more trusted and due to their longer-term presence in the communities, they are well-placed to advise on and deliver epidemic response activities.
- Private Not-For-Profit (PFNP) health care providers and related umbrella organisations are also not sufficiently involved in outbreak response. Particularly in rural areas, PFNP play a key role in health care provision. Training PFNP health workers to identify and respond to outbreaks can serve as an additional layer in surveillance

**Traditional healers, spiritual healers, and herbalists are key actors who provide complementary and alternative medicine services in Uganda.** Healers often practice more than one of these and specific beliefs and practices vary by cultural group.

- There is a need for a systematic assessment of each culture's health beliefs, local etymologies, and understandings of disease is necessary.

- Traditional healers should not be stigmatised or treated as ‘less than’ health providers. Respecting differences in belief and medical practice can help establish collaborative relationships for better epidemic control.
- As done previously, training traditional healers to identify signs of key infectious disease can play a pivotal role in referring patients to health facilities.
- However, traditional healers are not always the most trusted source of care. In Uganda, many prefer to see biomedical providers in cases of suspected infectious disease. Traditional healers might be seen for chronic illness or mental health issues.

**Academic institutions play a key role in providing technical expertise** to the Ministry of Health, District Health Offices, and other non-governmental actors. Local social scientists can leverage existing research and in-country experience to provide rapid insights for outbreak response.

- It is important to liaise with relevant local social scientists to provide insights on context, history, and political economy of the area where the outbreak is situated.

**Community trust in epidemic response is a vital aspect of how and when communities take up public health guidance.** Trust is shaped by local context, especially political economy and history. Developing trust in response actors and public health systems will be key aspects of success.

- To improve trust, there should be transparency and honesty in terms of what needs to be achieved. Public health guidance and health services should be adapted to different populations, in terms of their cultural preferences and livelihood constraints.
- Engaging with trusted interlocutors will be one way to improve community buy-in to response activities. This may include NGOs, other community-based organisations, religious leaders, or local leaders, depending on context.

**Community engagement is key, not only in principle, but through meaningful dialogue, action, and co-design of local outbreak response.**

- Change perceptions of communities by assessing and highlighting strengths, assets, and capacities for epidemic response. This might include existing communication systems, mutual aid societies, and other capacities that relate to community resilience.
- Community engagement approaches are often limited in practice. More inclusive collaboration and participatory actions would mitigate differences and build a shared understanding of what needs to be accomplished during a health emergency.

- Epidemic preparedness strategies should also consider a holistic approach, such as also building community capacities in high-risk areas, so that communities are empowered to be the first responders during a crisis.

The identification of vulnerable populations depends on context, and should occur at the local level. However, there are key considerations for vulnerable populations, including:

- Vulnerabilities of urban poor, border populations, refugees and displaced people, the Karamojong, youth, and women and girls, should be considered. Epidemic response actors should include specific ways to mitigate vulnerabilities during an outbreak. For example, consider the ways that caregiving can put women at heightened risk of disease.
- When preparing response plans, consider the vulnerabilities of particular populations such as the urban poor. Closing down public transportation may make sense from a public health standpoint, but it devastates local informal economies where motorcycle taxi (*boda boda*) drivers are key participants.
- Border communities are sites of epidemic transmission, but should not be the target of blame or shame-based public health campaigns. Rather, border communities should be regularly engaged in epidemic preparedness and their role must be strengthened.

There is a lot to be learned from Uganda's handling of past epidemics, particularly HIV/AIDS and Ebola. Specifically:

- Vertical approaches to epidemic response may be needed in the short-term, but this draws much needed funds and resources away from an already struggling health system. Medium- and longer-term responses should be better integrated into the health system.
- While Uganda has clear structures in place for managing epidemic response, in practice, the response to Ebola was often uncoordinated and over-bureaucratic. Additional communication and coordination are needed, particularly between the central coordinating body and district offices.
- Given the history of conflict and marginalisation by many groups in Uganda, the military should not be engaged in epidemic response, and certainly not as a public face of the response.
- Risk communication and other epidemic preparedness and response activities should consider the context of vulnerability in Uganda. Blanket messaging and approaches will not work, especially for vulnerable populations that face barriers to engaging in health-promoting behaviour.

## KEY ACTORS

This section presents a list of key actors identified in the process of researching for this brief with whom early responders may want to engage with.

### SOCIAL SCIENCE INSTITUTIONS

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**Makerere University School of Social Sciences** (<https://ss.mak.ac.ug/>) – a key in-country social science research school with a long history of research on health and development in Uganda. Partnership could include qualitative and mixed-methods assessments of perspectives on epidemic response and uptake of related behaviours and services. Its website contains many useful references and working papers. (<https://ss.mak.ac.ug/publications>)

**Makerere Institute of Social Research (MISR)** (<https://misr.mak.ac.ug/>) – a research institute at Makerere University, headed by Dr. Mahmood Mamdani, a Ugandan academic with decades of experience in political and social science. MISR could be helpful in identifying early-career researchers or doctoral students for epidemic-related investigations.

**Gulu University School of Medicine** (<https://gu.ac.ug/>) – the School of Medicine has programs on medical anthropology and other social science fields. Based in northern Uganda, Gulu University faculty and students are well-placed to be engaged in any epidemic-related research or investigations in the region.

#### National Researchers:

- Dr. David Kaawa-Mafigiri, anthropologist/public health
- Dr. Charles Rwabukwali, anthropologist
- Dr. Grace Akello, anthropologist/public health
- Dr. Florence Ebila, women and gender studies

### ORGANISATIONS INVOLVED IN EPIDEMIC RESPONSE IN UGANDA

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#### International organisations

**Centers for Disease Control and Prevention (CDC)** – the CDC has conducted more than 35 outbreak responses coordinated by the PHEOC. They conduct a Field Epidemiology Training Program which investigates outbreaks, conducts emergency assessments, and public health surveillance. They also work with local labs on strengthening systems. <https://www.cdc.gov/globalhealth/countries/uganda/default.htm>

**International Committee of the Red Cross (ICRC)**- The Red Cross has a strong presence in health in Uganda. The IRC works longer-term with refugees in Uganda. During outbreaks and epidemics, the Red Cross works with authorities in places of detention (e.g. prisons) and border crossings. They work to strengthen standard practices such as medical screening of new arrivals and distribute hygiene materials. They also provide technical support for Uganda's preparedness and response plans. <https://www.icrc.org/en/where-we-work/africa/uganda>

**International Rescue Committee (IRC)** works primarily with refugees but is also a key partner of the National Task Force. They focus in the Acholi and Karamoja sub-regions and work with communities recovering from conflict as well as refugee populations. During outbreaks, they provide medical equipment and train health care workers. <https://www.rescue.org/country/uganda#how-does-the-irc-help-in-uganda>

**IntraHealth** works to strengthen the country's health workforce with training and other activities. They work with others to develop and implement district- and national-level strategies for health system strengthening. They are a key partner of the National Task Force. <https://www.intrahealth.org/countries/uganda>

**MSF (Médecins Sans Frontières/Doctors without Borders)** – supports the National Task Force to improve Ebola response preparedness. Their teams set up Ebola Treatment Units in the districts bordering DRC in the 2018-2019 epidemic. MSF has long played key roles in responding to health crises and through their work with refugees, especially the large influx of South Sudanese refugees in the country. <https://www.msf.org/uganda>

## **Ugandan NGOs**

**East African Public Health Laboratory Network Project (EAPHLNP)** – works to control the spread of infectious disease through improved diagnostics and surveillance capabilities. <https://eaphln-ecsahc.org/>

**Infectious Diseases Institute (IDI) – Makerere University/Mulago Hospital** – IDI conducts research and capacity development to strengthen health systems in the region. Their work on global health security is to develop capabilities to prevent, detect, and respond to infectious disease outbreaks. <https://idi.mak.ac.ug/>

**Public Health Emergency Operation Centre (PHEOC)** under the Ministry of Health is responsible for coordinating information and resources (human and physical), organising, conducting, and managing all aspects of public health emergency response efforts in the country.

Ugandan Virus Research Institute (UVRI) is central to any outbreak investigation. They conduct research, surveillance, and diagnostics. <https://www.uvri.go.ug/>

### United Nations agencies

International Organization on Migration (IOM) is a key partner in cross-border movement and border crossings during an epidemic like Ebola. They conduct operations related to emergency response, primarily focused on refugees and asylum seekers. <https://uganda.iom.int/>

UNFPA (United Nations Population Fund) - has supported the COVID-19 response and especially the effects on women and girls. They also work with refugee populations in the country. <https://uganda.unfpa.org/en/>

UNICEF (United Nations Children's Fund) - has supported the government in developing communication strategies and community mobilisation efforts for epidemic response. It could help leverage efforts to reach difficult-to-reach populations in the case of future epidemics. <https://www.unicef.org/uganda/>

WHO (World Health Organization) - has a country office in Kampala. The agency is an important partner of the Ugandan Ministry of Health in responding to epidemics caused by infectious diseases and building healthcare capacity. <https://www.afro.who.int/countries/uganda>

## OTHER ORGANISATIONS ADDRESSING HEALTH ISSUES IN UGANDA

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### International organisations

CRS (Catholic Relief Services) - <https://www.crs.org/our-work-overseas/where-we-work/uganda>

Makerere University-Walter Reed Project - <https://www.muwrp.org/>

Oxfam - <https://uganda.oxfam.org/>

Pathfinder International - <https://www.pathfinder.org/countries/uganda/>

Population Services International - <https://www.psi.org/country/uganda/>

Save the Children International - <https://uganda.savethechildren.net/>

WaterAid - <https://www.wateraid.org/where-we-work/uganda>

### Ugandan NGOs

Inter-Religious Council of Uganda (IRCU) - <http://www.ircu.or.ug/>

Community Health Alliance Uganda (CHAU) - <https://www.chau.co.ug/>

## ACKNOWLEDGEMENTS

The authors would like to thank Professor Eddy J. Walakira (Makerere University), Mr. Ismael Ddumba-Nyanzi (Palladium/Data for Impact Project), and Dr. Grace Akello (Gulu University).

This briefing was reviewed by: Elizabeth Storer, Melissa Leach, and Hayley MacGregor.

**Suggested citation:** Kaawa-Mafigiri, D., Kato, F., & Schmidt-Sane, M (2020) Tackling Deadly Diseases in Africa: Key Considerations for Epidemic Response and Preparedness in Uganda, *Briefing*.

Published December 2020



Tackling deadly diseases in Africa



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## ANNEXE: ADDITIONAL HISTORY AND CONTEXT

This annexe provides additional contextual information on aspects presented in the brief, as well as additional issues which responders may want to know about.

### COUNTRY CONTEXT

Uganda's GDP is US\$89.19 billion, placing it 89th in the world<sup>1</sup> with a Human Development Index (HDI) value of 0.528 putting it in the low human development category.<sup>177</sup> In 2019, Uganda's GDP growth was 5.6% but it has experienced a considerable slowdown in growth due to COVID-19, a locust invasion in the East, and major flooding in the West.<sup>178</sup> Any analysis of Uganda must include regional variation and a discussion of regional disparities. While the aggregate GDP growth is positive, this masks significant inequalities within Uganda, especially along a North-South geographic divide (Figure 1, comparing Central & Kampala regions vs. North, West Nile, Karamoja).<sup>179, 180</sup>

Uganda's economy is dominated by agriculture, while over 50% of GDP is attributed to the informal sector, which employs over 80% of the labour force.<sup>70, 181</sup> Uganda has vast natural resources, including oil, metals (copper, gold), and other minerals.<sup>178, 182</sup> Agriculture is a driving force of the economy and the sector employs 72% of the workforce.<sup>178</sup> Major agricultural exports include coffee, cotton, tea, horticultural products, and food crops (maize, millet, beans, etc.). Fishing also makes up a large part of the economy, with fish and fish products exported. Manufacturing contributes a relatively small portion of GDP (25.5%).<sup>178</sup>

#### North-South Divide

Uganda is in fact a country of two halves, as reflected in development priorities. Until recently the South has been a "donor darling," whilst the North has been characterised as "post-conflict."<sup>183</sup> The Southern economy is dependent on agricultural exports, tourism, remittances, and foreign direct investment, all of which have reduced in 2020 due to the pandemic.<sup>178</sup> The promise of oil exploration and production is yet to be fully realized. There is also increasing uncertainty around upcoming January 2021 elections which adds to this precarity and may result in further disruption in economic activities. Uganda's population of over 43 million is one of the youngest (48% less than 15 years old; median age: 15.7 years) and fastest growing populations (total fertility rate = 5.8 children per woman) in the world.<sup>139</sup> Twenty-five percent of the population lives in urban areas, with a 5.7% rate of urbanization which is also one of the fastest in the world.<sup>139, 184, 185</sup> These dynamics present major challenges to the country's health system and its epidemic response governance.

## POLITICAL ECONOMY AND COLONIALISM

### Colonial History

Uganda is a former British colony that achieved independence in 1962. Despite decades of reported economic growth at the national level, the country has high levels of inequality and joblessness.<sup>71, 186, 187</sup> The underpinnings of these phenomena are rooted in the history of British indirect rule that privileged the Ganda over others and stratified Kampala into an African and a European area. This paired with neoliberal economic policies post-Independence have exacerbated inequality. The British both spatially and ethnically stratified Uganda.<sup>188–190</sup>

British colonialism in Uganda is marked by key features and events (Box I). The Uganda Agreement of 1900 governed the system of colonial rule.<sup>189</sup> The Agreement instituted a three-tiered structure of administration, divided into county, sub-county, and parish levels managed by Buganda officials.<sup>188, 191</sup> The British began a privileging of Ganda within the protectorate, who were chosen to implement this administration in what has been termed a “Gandacentric” view of other tribes in Uganda.<sup>188, 192–194</sup>

By the 1920s, senior Ganda chiefs emerged as a highly privileged class that built networks of influence, control, and patronage – a manner of ruling which persists to this day.<sup>195–197</sup> Prior to colonial rule, the Baganda tribe ruled over other tribes,<sup>d</sup> particularly in present-day western Uganda.<sup>198</sup> However, colonial rule set up Ganda leaders as exceptionally privileged, managing an even larger swathe of the country.<sup>155, 191</sup> Another significant aspect of the Agreement was the land settlement system, which created a system of individual land rights as opposed to the historical system of communal land managed by the tribe.<sup>71, 188</sup> Workers on *mailo* (individual land) were new tenants of the newly created landowning Ganda class, which shaped access to wealth and economic stability, and exacerbated wealth inequalities in the city.<sup>71, 199, 200</sup>

#### Box I. British colonialism in Uganda

- British colonialism set the stage for inequalities we see today, primarily between the North and the South;
- Indirect rule through a protectorate, and through the Ganda ethnic group
- Few white settlers, in contrast with neighbouring Kenya;
- It was an extractive colonial state with high taxation and low government spending;
- Independence achieved mainly through labour organising and strikes, which peaked in 1945;
- Independence was obtained in 1962 and Ganda tribe’s King Frederick Mutesa II became the first President and Milton Obote as Prime Minister with executive powers.

<sup>d</sup> Note: a concept of “tribe” as discussed here is not indigenous for all ethnic groups in Uganda, but is rather a construct that emerged during the British colonial era, when terms like “tribe” and “chief” were used.

## North-South Divide

In fact, it was these colonial policies that set the stage for contemporary inequalities along a regional North-South divide.<sup>201, 202</sup> During the colonial era, the North experienced frequent border changes. Local populations may have been under the control of Belgian Congo, Anglo-Egyptian Sudan, and the Ugandan Protectorate.<sup>203</sup> The Northwest region was chronically underdeveloped. The North served primarily as a “labour reserve” for migrant work to the South and later, as a source of army recruitment.<sup>201, 204</sup> In the present day, the region has continued to be marginalised from the economically and politically stronger Southern region.<sup>204</sup>

During the immediate post-colonial period, there was a renegotiation of power in the country, despite this Gandacentric colonial period and during much of pre-colonial Uganda.<sup>198, 205, 206</sup> The postcolonial period did not radically restructure the inequalities created during colonisation.<sup>207, 208</sup> Uganda would face steady conflict and internal struggle until the 2000s.<sup>209–213</sup> Uganda’s ethnic groups are each powerful in their own right, which does not lend well to a balance of power at a national level.<sup>214</sup> The Bush War (1980-1986) waged between the National Resistance Movement (NRM) and President Obote’s second regime set up the current political structure in Uganda.<sup>215–217</sup> Museveni led the insurgency against President Obote, who was widely perceived by many of the Ugandan populace as having gained power via fraudulent elections and extensive political repression and violence.<sup>215, 217</sup> Southern Uganda has experienced a relatively long period of peace since that war. However, inequalities are multidimensional, shaped by intersections of ethnicity, class, politics, and economic ambitions.<sup>198</sup> The remainder of this section focuses on these forms of inequality which shape access to power and resources in the country today and can explain the approaches to epidemic response.

## Inequalities

Policies instituted in the 1980s in Uganda have important legacies for today’s economy, which many individuals are unable to fully participate in. Beginning in the 1980s, Uganda adopted neoliberal reforms to liberalize its economy.<sup>70</sup> Free market neoliberal policies were instituted to promote economic growth, stabilize out-of-control inflation, and maintain a sustainable balance of payments.<sup>218–221</sup> While the economy subsequently improved, this growth has been concentrated in the upper echelons of society; the Gini coefficient increased from 0.39 in 1996 to 0.43 in 2016.<sup>222</sup> This economic liberalization has not translated into adequate formal job creation in the country, evidenced in part by the high rate of participation in the informal economy.<sup>70, 218, 223</sup> While Uganda’s economy looks moderately strong at first glance (high economic growth, moderate inflation), again there have been regional disparities whereby neoliberal policies supported growth in the

South. On the other hand, the North was often involved in conflict and was cut off from economic growth because of this.<sup>224</sup>

### **Neoliberal policies in the public health system**

In 1993, the Ugandan government began to differentiate between preventive aspects of health to be financed by the government and curative services, to be financed by individuals via the introduction of user fees.<sup>17, 225, 226</sup> In 1996, the government began integrating the private sector within the health system, which included subsidies for the private not-for-profit sector to provide services, including primary health care (PHC).<sup>17</sup> By 2001, it was clear that user fees restricted health care access, especially for the poor.<sup>225–227</sup> User fees were highly unpopular and were abolished during the 2001 presidential election.<sup>17</sup> Odaga (2004) highlights that despite this abolishment of fees, Uganda's health care system is still skewed, with the poor continuing to experience a greater cost of ill-health.<sup>228</sup> While all user fees were abolished at HCs, patients often have to pay for laboratory tests, ambulance rides, and other associated costs. Due to medication stockouts, patients are often left to purchase medication from private pharmacies.<sup>227</sup> This has facilitated a dual system of having free public health care provision in name, while allowing de facto privatization within public health facilities.<sup>229, 230</sup> Furthermore, access to these additional services and medicines within public facilities has become inaccessible for the rural and urban poor given the high fees it attracts.<sup>48</sup>

### **Urbanisation**

A key challenge in Uganda is managing rapid urbanisation, where urban inequality and rising numbers in informal settlements present twin challenges to urban management and health.<sup>70–73</sup> Historically, urban migration was circular with short periods of time spent in the city to engage in wage labour, with the ultimate goal of returning home to establish a household.<sup>231, 232</sup> A lack of opportunities in the rural areas, the reduction of communal land, and rural impoverishment led many to permanently move to the city.<sup>70, 231, 233</sup> Meanwhile, there has not been as strong a formal approach as needed to urban development.<sup>74–76</sup> In response to unevenly implemented policies, ad hoc spaces ballooned to house the many urban migrants.<sup>77</sup> Ugandan informal settlements are marked by lack of land tenure, poor housing conditions, and inadequate access to basic services and amenities, engendering high levels of vulnerability.<sup>78</sup> Further, the informal settlement is a site of social inequality and social control, which has influenced how it has become a centre of political dissent. Crack-downs on the informal sector began early in 1974 with the government rounding up informal traders in a well-publicized example of a growing totalitarian regime.<sup>232</sup> These crack-downs have continued in the Museveni era, leading to increasing marginalization of informal settlement residents.<sup>70, 234</sup>

Uganda is undergoing demographic change driven by rapidly increasing numbers of youth in the country.<sup>104–106</sup> It is also experiencing political upheaval facilitated by economic policies and exclusionary development, which maps onto a youthful population. Many rural Ugandan local societies are premised on gerontocracy.<sup>105</sup> From the 1920s through the 1940s, both Baganda and British officials saw youth and generational transition as disruptive to public order.<sup>105</sup> Youth politics played a critical role in the interwar period, and in the years following World War II. In recent years there has been a resurgence of youth politics, evident primarily in urban and peri-urban informal settlements. Such struggles have been united since 2017, under the leadership of the popular opposition leader determined to unseat President Museveni.<sup>64, 107</sup> Robert Kyagulanyi grew up in one of Kampala's informal settlements, Kamwokya. He taps into youth frustrations with socio-economic inequality.<sup>64, 108–110</sup> Uganda has seen other opposition leaders since President Museveni's ascension, but none have resonated with such a large swathe of society.<sup>235</sup> Political tensions are likely to increase in the run up to the 2021 elections.<sup>108</sup>

## SOCIAL GROUPS, STRUCTURES, AND RELATIONS

### Cultural and linguistic groups

Uganda can be divided into broad linguistic groups: Bantu-speaking and non-Bantu speaking (e.g. Nilotic, Central Sudanic people). Bantu speakers include the Buganda<sup>e</sup> kingdom, Bunyoro, Toro, Nkore, Kiga, and Busoga states in the Central and West, with non-Bantu speakers in the North and East.<sup>198, 236</sup> The Baganda are the largest tribe (16.7% of the population), with Basoga (8%) and Bagisu (5%) following.<sup>237, 238</sup> Nilotic speakers migrated South into the region, and are primarily cattle herders with additional agricultural activities. The Teso (8.1%) territory stretches across much of Eastern Uganda, while the Karamajong are in the Northeast.<sup>182</sup>

#### Box II. Regional highlights

- Northern Region. Home to Nilotic and Central Sudanic tribes engaged in agriculture. The Acholi region faced years of war and internal displacement during the Lord's Resistance Army insurgency.
- Central Region. Historical lands of the Baganda tribe, a Bantu ethnic group, which was at the centre of British indirect rule during the colonial era.
- Western Region. Home to Bantu tribes with shared ethnic and cultural roots with parts of DRC and Rwanda. Currently in power with President Yoweri Museveni (a westerner). Host communities for refugees from neighbouring countries.
- Eastern Region. Home to Nilotic tribes such as the Teso which migrated more recently (mid-19<sup>th</sup> century). The area is divided into Northern and Southern Teso territories.

<sup>e</sup> *Linguistic note*: among the Bantu linguistic-ethnic groups, a Bu- prefix refers to the kingdom (Busoga or Buganda/Ganda), a Ba-prefix refers to the people (Basoga or Baganda), and a Mu- prefix is one person (Musoga or Muganda).

## **Ethnic tension**

President Museveni is Bahororo, which has established the political prominence of western tribes since his ascension in 1986.<sup>239</sup> For nearly 18 years, the North (especially populations living in Acholiland) suffered from war and related atrocities perpetrated by Joseph Kony's Lord's Resistance Army (LRA) insurgent army, including large numbers of child abductions to forcibly serve as child soldiers or bush wives, and torture and killing of the civilian population.<sup>239</sup> President Museveni and Ugandan army forces likely precipitated the war.<sup>202, 240</sup> The war served a political purpose of sowing chaos in the North and dis-allowing any kind of political opposition to flourish there.<sup>94, 239, 241</sup> The Baganda have also experienced tensions with the central government in recent years, such as restrictions placed on the Buganda King's movement or clashes over land control.<sup>242-244</sup> Baganda dissatisfaction is partly behind present-day political tensions, as the newly formed opposition party (National Unity Party) is represented by key Ganda leaders and some have perceived this as a potential revival of Ganda nationalism.<sup>64, 245, 246</sup>

## **Social organisation**

Social organisation is dominated by kinship groups, extended kin, and other forms of organisation based on tribal customs (e.g. clans). Children are typically cared for by extended kin, and are often sent to live for extended periods in other households, either for the purposes of schooling or to solidify kinship bonds.<sup>247</sup>

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