# **COUNTRY PROFILE: BURUNDI**

Overview of Burundi's health system

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**SOCIAL** INNOVATION

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## LIST OF ABBREVIATIONS

AIDS Acquired immune deficiency syndrome

**CAM** Medical Assistance Card

FDD Forces for Defence of Democracy

**FNL** Forces for National Liberation

FRODEBU Front for Democracy in Burundi

HIV Human immunodeficiency virus

IHP International Health Partnership

MDG Millennium Development Goal

MFP Civil Service Mutual Insurance Fund

OOP Out-of-pocket

US\$ United States dollar

WHO World Health Organization

## **EXECUTIVE SUMMARY**

Burundi is landlocked in Central Africa, bordering the Republic of Rwanda, the Democratic Republic of Congo, and the United Republic of Tanzania. The population mostly comprises of Tutsis and Hutus, with conflict between these groups playing a significant role in the country's history. Nearly 90% of the population lives in rural areas and the vast majority practises Christianity. Pierre Nkurunziza is currently the president of the Republic of Burundi. The economy is dominated by the agricultural sector and has limited infrastructure and natural resources, as well as high levels of poverty and low levels of educational enrolment. Current development plans aim to modernise public finance, strengthen social services, and boost several different sectors, particularly energy, mining and agriculture, with increased involvement of the private sector.

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# 1. COUNTRY AT A GLANCE

Component	Details/indicator/year	Data		
	Total population (2014)	10 816 860ª		
Population	Percentage of urban vs. rural (2014)  Urban: 12, rural: 88 <sup>a</sup>			
Geography	Burundi is landlocked in Central Africa. The terrain includes the eastern flank of the Western Rift Valley, a series of mountains and plateaus, and the narrow Imbo valley. The generally high elevation moderates the country's tropical climate. <sup>b</sup>			
Ethnic composition	Hutu, Tutsi, Twa Pygmy, and various Swahili-speaking groups from the Democratic Republic of the Congo and Tanzania. <sup>b</sup>			
Government	Burundi's government is a republic of 17 provinces with the capital at Bujumbura. The legislature is comprised of two bodies, a Senate and a National Assembly. The president serves as head of state and government. The 2005 constitution dictates power sharing between Hutus and Tutsis, as well as a small amount of required representation for the Twa people. The president and members of the legislature serve five-year terms. The legal system is based on German and Belgian civil codes and customary law, and the highest court is the Supreme Court. <sup>b</sup>			
	GDP per capita (purchasing power parity) (2014)	US\$ 769.9 (current international dollars) <sup>a</sup>		
	Economic growth as percentage of GDP (2014)	4.7ª		
	Gini-index (2013)	33.3°		
	HDI (2014)	0.500 (ranked 184) <sup>d</sup>		
	Percentage of people below national poverty line (2006)	66.9ª		
Economic and	Percentage of unemployment (2014)	6.9ª		
infrastructure data	Percentage of adult literacy (2008)	87ª		
	Education gender parity index (2013)	0.95ª		
	Percentage of population with	Access to improved drinking water: 76 (urban: 91, rural: 74) <sup>a</sup>		
	access to sanitation (2015)	Access to improved sanitation facilities 48 (urban: 44, rural: 49) <sup>a</sup>		
	Percentage of population with access to electricity (2012)	6.5ª		
	Health expenditure as percentage of GDP (2014)	7.5ª		
Health system	Annual public expenditure on health as percentage of total health expenditure (2014)	52.7ª		
	Health expenditure per person (2014)	US\$ 22 (current US\$)ª		

	Number of physicians per 1 000 population (2004)	0.028ª
	Number of nurses and midwives per 1 000 population (2004)	O.2ª
	Percentage of births with skilled attendants (2010)	60 <sup>e</sup>
	Average life expectancy in years (2014)	57ª
	HIV prevalence as percentage among adults aged 15-49 (2014)	1.1 <sup>f</sup>
	Deaths due to AIDS (2014)	3900 <sup>f</sup>
	Deaths due to non-communicable diseases (2012)	32 200 <sup>g</sup>
D: 1 1	Deaths due to homicide (2012)	657 <sup>9</sup>
Disease burden	Maternal mortality rate per 100 000 births (2015)	712 <sup>a</sup>
	Infant mortality rate per 1 000 births (2015)	54ª
	Under-five mortality rate per 1 000 births (2015)	82ª
	1. Lower respiratory infections	12.5
Top five causes of	2. Diarrhoeal diseases	9.3
mortality as percentage of deaths	3. Protein-energy malnutrition	5.6
(2012) <sup>h</sup>	4. Stroke	4.7
	5. Preterm birth complications	4.5
	1. Maternal/neonatal/nutritional	
	2. Other infectious diseases	ND
Top five causes of	3. Acute respiratory infections	ND
DALYs (2012) <sup>h</sup>	4. Unintentional injuries	ND ND
	5. Other non-communicable diseases	ND ND

GDP: gross domestic product; gini-index: measures the extent to which the distribution of income (or consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution; HDI: human development index; DALYs: disability-adjusted life years.

Sources: a World Bank (2015b); b Eggers (2015); UNDP (2013); UNDP (2015); UNDP (2015); Joint United Nations Programme on HIV and AIDS (2014); WHO (2012); WHO (2015a).

## 2. COUNTRY CONTEXT

## 2.1 COUNTRY HISTORY AND POLITICAL SYSTEM

Hutus and Tutsis originally settled in the area that is now called Burundi, with conflict between these groups defining much of the country's history. Burundi was incorporated with what is now Rwanda into German East Africa in 1890 and was later occupied and administered by Belgium from 1923. Burundi separated from Ruanda-Urundi and became an independent kingdom on 1 July 1962 under King Mwambutsa IV, after an independence movement led by his son Prince Louis Rwagasore who had been assassinated the year before. With initial years characterised by ethnic violence between Hutus and Tutsis, King Mwambutsa refused to appoint a Hutu prime minister after Hutu victory in parliamentary elections, leading to a failed coup in 1965 and takeover by Mwambutsa's son Ntare V,

who deposed his father in 1966. A few months later, fellow Tutsi and army chief Michel Micombero ousted King Ntare V, becoming president (BBC, 2015a).

After presiding over the massacre of some 120 000 Hutus to suppress a Hutu uprising in 1972, Micombero was overthrown in a military coup led by another Tutsi, Jean-Baptiste Bagaza, in 1976. Bagaza spearheaded a new constitution that made Burundi a one-party state under the Union for National Progress in 1981, but was deposed in yet another coup led by Pierre Buyoya, also a Tutsi, in 1987. Thousands more Hutus were killed by Tutsis a year later, prompting thousands to flee to neighbouring Rwanda (BBC, 2015a).

A referendum in 1992 led to a new constitution with a multiparty political system. Military rule ended with the victory of Melchior Ndadaye and his party, the Front for Democracy in Burundi (FRODEBU), in elections in 1993, leading to a pro-Hutu government. A few months later, Ndadaye was assassinated by Tutsi soldiers, leading to ethnic retributions and the deaths of an estimated 300 000 people. The situation escalated into genocide several months later, after the deaths of newly appointed Hutu president Cyprien Ntaryamira and his Rwandan counterpart. They died after the plane in which they were travelling was shot down over the Rwandan capital Kigali, and this was followed by a Rwandan genocide that led to the deaths of 800 000 people in Rwanda in April 1994. Violence continued while the speaker of Parliament, Sylvestre Ntibantunganya, was appointed president in October of that year (BBC, 2015a).

Ex-president Buyoya returned to power in 1996, implementing a new transitional constitution that saw Buyoya officially sworn into office. Although the government and three Tutsi groups signed a ceasefire in 2000, principal Hutu groups refused to participate, even after the installation of a power-sharing transitional government in talks brokered by South African President Nelson Mandela. Jean Minani of the Hutu party, FRODEBU, was elected president of a transitional national assembly in 2002 in an attempt to maintain peace, while fellow Hutu Domitien Ndayizeye was elected president of the transitional government in 2003. Hutu rebel group Forces for Defence of Democracy (FDD) was brought into the fold in an agreement signed to end the civil war a few months later, although a smaller Hutu group, Forces for National Liberation (FNL), remained active (BBC, 2015a).

In 2005, Pierre Nkurunziza of the FDD was elected president and drew the last major rebel group, the FNL, into a ceasefire agreement. However, clashes between rival factions of FNL continued, with renewed conflict with the government in 2008 before another ceasefire was signed. The group eventually formed a new political party in 2009. Opposition parties boycotted presidential elections in 2010, resulting in the unopposed re-election of Nkurunziza, who later restricted media and political freedom. Amidst claims of the murder of 300 opposition members and the intimidation of judges, as well as a United Nations report stating that the government had armed its young supporters, Nkurunziza won a Constitutional Court decision to run for a third term. After months of protests and a failed coup attempt by an army officer, Nkurunziza won his second re-election in July 2015 (BBC, 2015a).

## 2.2 POPULATION

Burundi's population of 10.8 million (World Bank, 2015b) consists primarily of the Hutu and Tutsi groups, with Hutus constituting the majority. Other groups include the Twa Pygmies and various Swahili-speaking peoples from Tanzania and the Democratic Republic of the Congo (Eggers, 2015). The population is mostly rural, with 12% living in urban areas (World Bank, 2015b). The official languages are Rundi and French, while Swahili is the language of trade and widely spoken in the capital. Most of the population is Christian, three-fifths of whom are Roman Catholic. A large minority and

some Roman Catholics practise traditional religion, while a tenth of the population practises Islam (Eggers, 2015). Life expectancy is 54 years (World Bank, 2015b), with the median age slightly less than 18 years (United Nations, 2015).

#### 2.3 ECONOMY

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Table 1. Economic measures of Burundi

Indicator/year	Data
GDP per capita (purchasing power parity) (2014)	US\$ 769.9 (current international dollars) <sup>a</sup>
Economic growth as percentage of GDP (2014)	4.7ª
Debt as percentage of GDP (2013)	37.0 <sup>b</sup>
Gini-index (2013)	33.3°
HDI (2014)	0.400 (ranked 184) <sup>d</sup>
Percentage of people below national poverty line (2006)	66.9ª
Percentage of unemployment (2014)	6.9ª

GDP: gross domestic product; gini-index: measures the extent to which the distribution of income (or consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution; HDI: human development index.

Sources: a World Bank (2015b); IMF (2015); UNDP (2013); UNDP (2015).

Burundi is one of the poorest nations in the world (BBC, 2015b) and dominated by subsistence agriculture, which employs approximately 90% of the population. The country has experienced moderate economic growth over the past decade due to strong coffee exports and growth in the construction and service sectors, as well as a sharp decline in inflation and decreases in the prices of imports. However, the economy has two main weaknesses: limited fiscal space and a narrow export base, which makes the economy vulnerable to external pressures. Stark socioeconomic disparities exist between the capital Bujumbura and the rest of the country. Current development plans aim to modernise public finance, strengthen social services, and boost several different sectors, particularly energy, mining and agriculture, with increased involvement of the private sector (World Bank, 2015a).

#### 2.4 ENVIRONMENT

Burundi is located at the heart of Central Africa, landlocked and bordering the Democratic Republic of the Congo, Rwanda, Tanzania, and Lake Tanganyika. The topography includes the eastern flank of the Western Rift Valley as well as mountains, plateaus, and the narrow Imbo valley that extends southward from Rwanda to Lake Tanganyika. Relatively high elevation moderates the country's climate, resulting in cool temperatures throughout the year in the central plateau area and only slightly higher temperatures at lower elevations. Annual precipitation averages 1 500 to 1 800 mm in the highest-lying areas and about 1 000 mm around Lake Tanganyika. A short dry season runs from May to August (Eggers, 2015).

## 3. HEALTH SYSTEM

#### 3.1 OVERVIEW

Burundi has made some progress with respect to achieving Millennium Development Goals (MDGs) 4, 5 and 6 (Government of Burundi, 2012), but significant challenges remain in the form of a high prevalence of communicable diseases, increasing burden of non-communicable diseases, and the vulnerability of mothers, children, and other at-risk populations. In addition, social determinants of health such as widespread poverty, lack of infrastructure (e.g. potable water), and lack of food security are significant structural challenges in improving health outcomes. The government has adopted interventions such as free care for mothers and children, performance-based financing, and mutual health insurance schemes in an effort to combat the burden of disease and address gaps in the health sector, though full implementation of these policies has been limited (Government of Burundi, 2011).

#### 3.2 ORGANIZATION

The Ministry of Public Health and the Fight against AIDS is the birth of a merger between two previously separate ministries. Governance of the health system is organised in a three-tiered, hierarchical, pyramidal structure, which is described below (Government of Burundi, 2011).

- Central level: includes the Office of the Minister, a General Health Inspectorate, two general
  directorates, specific institutions, six departments, nine health programmes, and related services.
  As a result of the merger of the two ministries and an institutional audit in 2009, there is now also
  a Permanent Secretariat, a general directorate of planning and monitoring and evaluation, and a
  national integrated programme to stem HIV and AIDS. Within the health sector, the central level
  is responsible for policy, strategy, coordination, mobilisation, allocation of resources and general
  oversight.
- 2. **Intermediate level**: includes 17 provincial health bureaus, which are responsible for coordinating the health activities of their respective provinces, supporting health districts, and ensuring collaboration between sectors. Duties are shared with district health bureaus.
- 3. Peripheral level: includes 45 health districts, with each district covering two to three cities of 100 000 to 150 000 residents each. The health district is the operational unit of the health system and includes the community level health centres, and district hospitals that serve as the first point of contact. Represented by community liaison officers, community-managed health centres implement health committees. Liaison officers raise awareness and provide treatment, monitoring, and patient support.

In addition to the above governance structure, the care network is organised into four levels (Government of Burundi, 2011).

- Health centres: serve as the point of entry into the health system, offering a minimum package
  of services that includes treatment and prevention consultation services, laboratory services,
  pharmacies, health promotion and health education, and in-patient observation.
- 2. **District hospitals**: serve as the first reference and offers outpatient consultation, emergency services, hospitalisation, specialised techniques, diagnosis, and support services. District hospitals offer both the minimum package of services and a supplemental package.

- 3. Second-reference hospitals: serve to supplement the package of services by offering certain specialised care. The legal framework for operating the second-reference hospitals and package of care are not yet well defined.
- 4. **National reference hospitals**: offer care not provided at other levels, such as specialised investigations and treatment. National hospitals offer the minimum package of care, which is also available at health centres.

The use of traditional medicine is not well documented, but is widely used, particularly by patients who prefer traditional healers or prayer groups over the formal health system (Government of Burundi, 2011).

## 3.3 CAPACITY

Table 2. Number of facilities and health workers per population, Burundi

Indicator/year	Data	
Total number of health centres (2011) <sup>a</sup>	735	
Public Faith-based	423 105	
Private	207	
Total number of district hospitals (2011) <sup>a</sup>	63	
Public	41	
Authorized Private	8 14	
	14	
Number of beds per 1 000 population (2011)	1.9 <sup>b</sup>	
Physicians per 1 000 population (2004)	0.03 <sup>b</sup>	
Nurses and midwives per 1 000 population (2012)	0.2 <sup>b</sup>	
Community health workers per 1 000 population (2011)	O.1 <sup>b</sup>	

Sources: <sup>a</sup> Government of Burundi (2011); <sup>b</sup> World Bank (2015a).

In addition to the health facilities listed in Table 2, there are three second-reference hospitals in Ngozi, Bururi, and Gitega. National hospitals include the University Hospital of Kamenge, Prince Regent Charles Hospital, the Kamenge Military Hospital, the Prince Louis Rwagasore Clinic, and specialised hospitals such as the Kamenge Neuro-Psychiatric Centre, the National Multi-drug Resistant Tuberculosis Centre (formerly the Kibumbu Santorium), and the National Brace and Rehabilitation Centre (Government of Burundi, 2011).

There are notable challenges within the structures of Burundi's health system. The central level lacks sufficient human and financial resources, notably, a lack of midwives, while the sharing of duties between provincial and district health bureaus results in inefficient allocation of resources and lack of adequate supervision. There is high use of hospitals and under-utilisation of health centres, due to the fact that health facilities at all levels offer the minimum package of services. Moreover, nine of the 45 districts lack hospitals, and not all are able to provide the package of services, with 45% of health centres only offering a minimum package. Lack of equipment and supplies, and uneven distribution of infrastructure and personnel (e.g. 50% of physicians and 21% of nurses work in Bujumbura) are also significant challenges (Government of Burundi, 2011).

The University of Burundi, University of Ngozi, and Université Espoir d'Afrique train physicians. Institutions such as the Institut National de Santé Publique and University of Mwaro train A1 paramedics, with other public and private institutions training A2 paramedics. Challenges in training Burundi's health workforce includes the non-selective recruitment of candidates at private schools, curricula that are not customised to the needs of the health sector, and a lack of comprehensive job descriptions and prescribed career plans for personnel. The government has implemented certain measures, such as subsidisation of health care for health workers and performance-based financing, to strengthen and support human health resource management (Government of Burundi, 2011).

## 3.4 POLICY ENVIRONMENT

The World Health Organization (WHO) (2014) states:

The national health policy 2005-2015 and the national health development plan articulate the commitments made by Burundi (1) at national level through the Burundi Vision 2025 and the Strategic framework for poverty reduction, and (2) at international level through its adherence to International Health Partnership (IHP+) and the MDG targets.

The key areas of the national health plan that are producing increasingly visible results are: (i) decentralization through the establishment of health districts, since 2009; (ii) universal access to health care (approximately 50% of the population) through the free health-care policy for children under 5 and pregnant women, from 2006, and the introduction of the health insurance card for the informal sector; and (iii) the scaling up of the results-based financing approach in 2010. This last component, in conjunction with free health care, is the main incentive mechanism in Burundi and has yielded positive results. Among other things, it has resulted in increased use of health services (from 1.68 consultations in 2009 to 2.2 consultations in 2012 for children under 5), better quality of treatment, strengthening of the health system through private-public collaboration and community engagement, and greater numbers of health workers in peripheral zones.

WHO (2014) lists the following as strategic priorities for Burundi:

- 1. Communicable disease control.
- 2. Improved access to interventions to prevent and manage non-communicable diseases and their associated risk factors.
- 3. Improved maternal, neonatal, child, and adolescent health.
- 4. Strengthening of health system capacities.
- 5. Intensification of alert and response capacities for disease outbreaks and emergencies, specifically natural and man-made disasters.

#### 3.5 HEALTH FINANCING

Table 3. Health financing data for Burundi, 2014

Indicator	Data
Total health expenditure (current US\$)	US\$ 233 138 000
Public expenditure on health as percentage of total expenditure	52.7
Public expenditure on health as percentage of general government expenditure	13.2

OOP expenditure on health as percentage of total private expenditure	44.5
Private insurance expenditure on health as percentage of total private expenditure	1.8
Expenditure of non-profit institutions serving households as percentage of total private expenditure	52.0
External funding (current US\$)	US\$ 117 219 000
Health expenditure as percentage of GDP	7.5

OOP: out of pocket; GDP: gross domestic product. Source: WHO (2015b).

As shown in Table 3, the health sector currently relies heavily on external aid, and the share of OOP payments in overall health expenditure is high. The government is currently preparing a common health fund to streamline the use of external funds. In 2006, the government adopted a policy of free care for children under the age of five and pregnant women, but this resulted in increased workload on health personnel and delays in reimbursing health facilities due to the absence of a system to verify declared services. To counter these adverse effects, the government has recently adopted a performance-based financing approach. In addition to correcting the difficulties in providing free care, the approach is intended to improve the use and quality of health services, strengthen human health resources and the management of facilities, and encourage personnel to work in peripheral facilities (Government of Burundi, 2011).

The government has initiated two mutual health insurance schemes: the Civil Service Mutual Insurance Fund (MFP) and the Medical Assistance Card (CAM). The MFP covers government employees and their dependants, which comprise 10% of the population. Specifically, the MFP covers 80% of the cost of services and pharmaceuticals and represents 15% of public expenditures. The CAM covers certain low-income populations, providing for 80% of the costs of laboratory tests, consultations, and hospitalisations. However, the CAM does not cover medications. The government has failed to reimburse certain providers, discrediting the CAM as a means of payment and causing reluctance to offer care to CAM beneficiaries. Private insurance funds are so far undeveloped (Government of Burundi, 2011).

## 3.6 COUNTRY DISEASE PROFILE

Table 4. Disease profile for Burundi

Indicator/year	Data	
Age-standardized DALYs per 100 000 for communicable diseases (2012)	40 770ª	
Age-standardized DALYs per 100 000 for non-communicable diseases (2012)	31 116ª	
Age-standardized DALYs per 100 000 for injuries (2012)	8141ª	
Under-five mortality rate per 1 000 live births (2015)	82 <sup>b</sup>	
Infant mortality rate per 1 000 live births (2015)	54 <sup>b</sup>	
Maternal mortality rate per 100 000 live births (2015)	712 <sup>b</sup>	
Estimated cases of malaria (2013)	1 400 000a	

Estimated deaths due to malaria (2013)	3 200ª
Prevalence of TB per 100 000 (2014)	195ª
Incidence of TB per 100 000 (2014)	126ª
Deaths due to TB among HIV-negative people per 100 000 (2014)	23ª
Prevalence of HIV as percentage among adults aged 15-49 (2014)	1.1°
Deaths due to AIDS (2014)	3900°
Deaths due to non-communicable diseases (2012)	32 200ª
Deaths due to homicide (2012)	657ª
Percentage of top five causes of mortality (2012) <sup>d</sup> 1. Lower respiratory infections  2. HIV/AIDS  3. Stroke  4. Diarrhoeal diseases  5. Malaria	10.0 8.0 6.4 5.3 4.8
Top five causes of DALYs (2012) <sup>d</sup> 1. Maternal/neonatal/nutritional  2. Other infectious diseases  3. HIV/TB/malaria  4. Other non-communicable diseases  5. Acute respiratory infection	ND ND ND ND ND

DALYs: disability-affected life years; TB: tuberculosis; ND: not determined. Sources: <sup>a</sup> WHO (2015c); <sup>b</sup> World Bank (2015a); <sup>c</sup> Joint United Nations Programme on HIV and AIDS (2014); <sup>d</sup> WHO (2015a).

Burundi's disease burden is characterised by a high prevalence of communicable diseases, a growing burden of non-communicable diseases, and the particular vulnerability of mothers, children and adolescents (WHO, 2014). While the country has made some progress in achieving MDGs 4, 5, and 6 (Government of Burundi, 2012), maternal and child mortality rates are still relatively high and many communicable diseases, such as malaria and HIV/AIDS, contribute heavily to morbidity and mortality (Government of Burundi, 2011). Non-communicable diseases such as diabetes, hypertension, cancer, and chronic obstructive pulmonary disease are acknowledged as growing public health concerns, although they remain poorly documented due to the lack of reliable surveys and their lack of inclusion in epidemiological data. A study performed by Kamenge University Hospital found that diabetes and hypertension are associated with 30% of cases of non-communicable diseases, while degenerative complications are associated with 73.17% of cases. Mental health has generally been neglected due to insufficient human resources and the lack of specialised infrastructure and medical products (Government of Burundi, 2011).

Numerous social determinants of health remain significant challenges in improving Burundi's health outcomes, including widespread poverty posing a barrier to health-care access and over 80% of patients incurring debt to pay health expenses. Lack of food security has led to malnutrition, with deficits in food production felt by the most vulnerable households. Lack of sanitation and potable water also affect health outcomes, both directly and indirectly through compromised quality of care at health centres that do not have access to running water (Government of Burundi, 2011).

## 4. INNOVATION ECO-SYSTEM

The National Institute of Public Health is mandated by the Ministry of Public Health and the Fight against AIDS to conduct research activities and generate scientific evidence to shape decision-making. While the Institute has generated significant output, it still remains constrained by insufficient human resources and finance, as well as a lack of coordination, similar to the challenges faced in the general health sector (Government of Burundi, 2011). Other institutions are fostering innovation in Burundi, with the UNICEF Burundi Innovation Lab meant to be "a creative space bringing children and young people, technologists, academics, business experts and policy-makers together to unlock some of the greatest challenges facing Burundi's children" (UNICEF, 2015). The Innovation Lab is currently focusing on technology for developing micro-energy rural entrepreneurship models, digital education tools, and mobile-based information platforms.

## **REFERENCES**

British Broadcasting Corporation. 2015a. "Burundi Country Profile." http://www.bbc.com/news/world-africa-13085064. ---. 2015b. "Burundi Profile - Timeline." http://www.bbc.com/news/world-africa-13087604. Eggers, Ellen Kahan. 2015. "Burundi." Encyclopaedia Britannica. Britannica. http://www.britannica.com/place/Burundi. Government of Burundi. 2011. "National Health Development Plan 2011-2015." Bujumbura. ---. 2012. "Burundi Millennium Development Goals Report 2012." Bujumbura. International Monetary Fund. 2015. "World Economic Outlook Database." Washington, DC. Joint United Nations Programme on HIV and AIDS. 2014. "HIV and AIDS Estimate." Geneva: Joint United Nations Programme on HIV and AIDS. http://www.unaids.org/en/regionscountries/countries. United Nations. 2015. "UNdata." http://data.un.org/. United Nations Children's Fund. 2014. "UNICEF Data: Monitoring the Situation of Children and Women." New York: United Nations Children's Fund. http://data.unicef.org. ---. 2015. "Innovation Labs." http://www.unicef.org/innovation/innovation\_73201.html. United Nations Development Programme. 2013. "Income Gini Coefficient." http://hdr.undp.org/en/content/income-gini-coefficient. ---. 2015. "Human Development Report 2015." New York. World Bank, 2015a. "Burundi: Overview." ---. 2015b. "World Development Indicators." Washington, DC: World Bank. http://data.worldbank.org. World Health Organization. 2012. "Global Health Observatory Data Repository." Geneva: World Health Organization. http://apps.who.int/gho/data/node.main. ---. 2014. "WHO Country Cooperation Strategy at a Glance: Burundi." Geneva. http://www.who.int/countryfocus/cooperation\_strategy/ccsbrief\_bdi\_en.pdf?ua=1. ---. 2015a. "Burundi: WHO Statistical Profile." Geneva: World Health Organization. http://www.who.int/gho/countries/bdi.pdf?ua=1. ---. 2015b. "Global Health Expenditure Database." http://apps.who.int/nha/database. ———. 2015c. "Global Health Observatory Data Repository." Geneva: World Health Organization.

http://apps.who.int/gho/data/node.main.