COUNTRY PROFILE: KENYA

Overview of Kenya's health system

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SOCIAL INNOVATION IN HEALTH INITIATIVE

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LIST OF ABBREVIATIONS

AIDS	Acquired immune deficiency syndrome
HIV	Human immunodeficiency virus
KANU	Kenya African National Union
MDG	Millennium Development Goal
NARC	National Rainbow Coalition
ODM	Orange Democratic Movement
OOP	Out-of-pocket
US$	United States dollar
WHO	World Health Organization

EXECUTIVE SUMMARY

Kenya is in East Africa and has an ethnically diverse population of nearly 46 million, with nearly three-quarters of the population living in rural areas. Over four fifths practise Christianity and there is a sizeable Muslim minority of over 10%. The government is a republic, with Uhuru Kenyatta currently serving as president. Despite declines in manufacturing and tourism, Kenya's economy is one of the fastest growing in the region, dominated by sectors such as agriculture, financial services, and information and communication technologies. However, challenges remain in the health sector. Communicable diseases constitute the major disease burden and non-communicable diseases are increasing. While infant and under-five mortality have improved, maternal mortality has stagnated, with targets in Millennium Development Goals 4, 5 and 6 unlikely to be achieved by the end of 2015. The innovation landscape is growing across different sectors such as education, health care, and information and communications technology. As a result, Nairobi is noted as the African technology hub.

1. COUNTRY AT A GLANCE

Component	Details/indicator/year	Data
Population	Total population (2014)	44 863 583[a]
	Percentage of urban vs. rural (2014)	Urban: 25, rural: 75[a]
Geography	Kenya is located in East Africa, and the terrain can be divided into the following geographic regions: the Lake Victoria basin, the coast, the Rift Valley and associated highlands, the eastern plateau forelands, and the semiarid and arid areas of the north and south. The climate is characterised by dry seasons that occur from December to March and June to August, and a wet season that runs from March to May.[b]	
Ethnic composition	Bantu language speakers: Kikuyu, Kamba, Meru, Nyika, Luhya, Gusii. Nilo-Saharan language speakers: Kalenjin, Luo, Maasai, Samburu, Turkana. Afro-Asiatic language speakers: Somali, Oromo, Burji. The Swahili live along the coast.[b]	
Government	The current Kenyan government is based on the 2010 constitution. The president is elected by direct popular votes for a maximum of two five-year terms and serves as head of state and government. The legislature is comprised of the Senate and National Assembly, and members of both also serve five-year terms. The Supreme Court serves as the highest court.[b]	
Economic and infrastructure data	GDP per capita (purchasing power parity) (2014)	US$ 2 954.1 (current international dollars)[b]
	Economic growth as percentage of GDP (2014)	5.3[a]
	Gini-index (2013)	47.7[c]
	HDI (2014)	0.548 (ranked 145)[d]
	Percentage of people below national poverty line (2005)	45.9[a]
	Percentage of unemployment (2014)	9.2[a]
	Percentage of adult literacy (2007)	72[a]
	Education gender parity index (2012)	0.98[a]
	Percentage of population with access to sanitation (2015)	Access to improved drinking water: 63 (urban: 82, rural: 57)[a] Access to improved sanitation facilities: 30 (urban: 31, rural: 30)[a]
	Percentage of population with access to electricity (2012)	23.0[a]
Health system	Health expenditure as percentage of GDP (2014)	5.7[a]
	Annual public expenditure on health as percentage of total health expenditure (2014)	61.3[a]
	Health expenditure per person (2013)	US$ 78 (current US$)[a]

	Number of physicians per 1 000 population (2013)	0.2[a]
	Number of nurses and midwives per 1 000 population (2013)	0.9[a]
	Percentage of births with skilled attendants (2008–2009)	44[e]
	Average life expectancy in years (2014)	62[a]
Disease burden	HIV prevalence as percentage among adults aged 15–49 (2014)	5.3[f]
	Deaths due to AIDS (2014)	33 000[f]
	Deaths due to non-communicable diseases (2012)	98 400[g]
	Deaths due to homicide (2012)	3174[g]
	Maternal mortality rate per 100 000 births (2015)	510[a]
	Infant mortality rate per 1 000 births (2015)	36[a]
	Under-five mortality rate in deaths per 1 000 births (2015)	49[a]
Top five causes of mortality as percentage of deaths (2012)[h]	1. HIV/AIDS 2. Lower respiratory infections 3. Diarrhoeal diseases 4. Protein-energy malnutrition 5. Birth asphyxia and birth trauma	14.8 12.3 6.3 4.1 4.0
Top five causes of DALYs (2012)[h]	1. Maternal/neonatal/nutritional 2. HIV/TB/malaria 3. Other infectious diseases 4. Acute respiratory infections 5. Other non-communicable diseases	ND ND ND 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; TB: tuberculosis; ND: not determined.
Sources: [a] World Bank (2015b); [b] Ntarangwi (2015); [c] UNDP (2014); [d] UNDP (2015); [e] UNICEF (2014); [f] Joint United Nations Programme on HIV and AIDS (2014); [g] WHO (2015b); [h] WHO (2015c).

2. COUNTRY CONTEXT

2.1 COUNTRY HISTORY AND POLITICAL SYSTEM

Kenya gained independence from British rule in 1963, becoming a republic. Jomo Kenyatta, the founding president and leader of the liberation struggle, led central governance from independence in 1963 until his death in 1978 and was succeeded by President Daniel arap Moi. The Kenya African National Union (KANU) was the only political party in power from 1969 to 1982 after KANU instated itself as the only party constitutionally eligible to stand for election. This changed in 1991 when then President Moi yielded to local and external pressure to amend the constitution regarding the eligibility of political parties to stand in national elections. However, KANU remained in power until 2002 as elections in 1992 and 1997 were marked by ethnic conflict, violence and corruption (BBC, 2015).

KANU lost power in the general elections in 2002 and Moi was voted out through a peaceful and democratic process. Mwai Kibaki, from the National Rainbow Coalition (NARC) party, defeated KANU candidate Uhuru Kenyatta (son of Jomo Kenyatta) and assumed the presidency. Following this defeat, there was a period in 2005 during which some NARC members joined KANU to form an opposition coalition called the Orange Democratic Movement (ODM) (BBC, 2015).

Despite the growing momentum of the new ODM party, President Kibaki was re-elected in 2007. His election elicited allegations of election rigging from the ODM, which precipitated nationwide violence and the deaths of approximately 1 500 Kenyans. Violence was directed towards citizens of Kikuyu ethnicity and was propelled by tribalism and government militancy towards opposition protesters (BBC, 2015).

In 2008, through a process of mediation sponsored by the African Union and led by the United Nations Secretary-General: Kofi Annan, a power-sharing agreement was negotiated between the ODM and NARC parties. This resulted in the creation of a new position of prime minister, assumed by Raila Odinga from ODM, with Mwai Kibaki serving as president. The agreement also included an agenda for constitutional reform. A national referendum in 2010 saw the adoption of a new constitution, introducing new regulations and decentralising power to 47 newly created counties. The position of prime minister was also removed. In 2013, Uhuru Kenyatta came to power after winning presidential elections (BBC, 2015).

In addition to constitutional changes in recent years, Kenya has faced a number of political challenges, including the implication of government officials in corruption allegations and the threat of terrorist attacks. In 2000, the International Monetary Fund halted lending to Kenya for three years, citing corruption concerns. In May 2011, 60 people were killed when Somalian gunmen from the Islamist group al-Shabab attacked the Westgate shopping mall. Two churches in Garissa were attacked in the following year, resulting in 15 casualties (BBC, 2012). Most recently, 148 students at Garissa University College died on April 2015 after gunmen stormed the university in attacks alleged to be instigated by al-Shabab (BBC, 2015).

2.2 POPULATION

Kenya's population of nearly 45 million is about three-quarters rural (World Bank, 2015b) and is comprised of three main language groups: Bantu, Nilo-Saharan, and Afro-Asiatic. Bantu language speakers include the Kikuyu, Kamba, Meru, Nyika, Luhya, and Gusii. Nilo-Saharan language speakers include the Kalenjin, Luo, Maasai, Samburu and Turkana. Afro-Asiatic peoples include the Somali, Oromo, and Burji (Ntarangwi, 2015). Swahili, spoken primarily by a people descended from marriages between Arabs and Africans who live along the coast, is an official language and the lingua franca, though a wide variety of languages reflected in the country's numerous ethnic groups are also spoken. English is the other official language. More than two-thirds of the population practises Christianity, while many hold a combination of Christian and traditional beliefs. There are also small segments of Jews, Jains, Sikhs, and Baha'is (Ntarangwi, 2015). Life expectancy is 62 years (World Bank, 2015a), and the median age is slightly less than 19 years (United Nations, 2015).

2.3 ECONOMY

Table 1. Economic measures of Kenya

Indicator/year	Data
GDP per capita (purchasing power parity) (2014)	US$ 2 954.1 (current international dollars)[a]
Economic growth as percentage of GDP (2014)	5.3[a]
Debt as percentage of GDP (2014)	47.0[b]
Gini-index (2013)	47.7[c]
HDI (2014)	0.548 (ranked 145)[d]
Percentage of people below national poverty line (2005)	45.9[a]
Percentage of unemployment (2014)	9.2[a]

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); [b] IMF (2015); [c] UNDP (2013); [d] UNDP (2015).

Kenya is one of Africa's fastest growing economies with a projected economic growth rate of 6%. Sectors like agriculture, infrastructure, financial services, and information and communication technologies have grown amidst declines in manufacturing and tourism. With a newly devolved government, a young population and a growing private sector, Kenya has much potential for further economic development, but may be hindered by poor governance and inequality. Nevertheless, aided by a stable macroeconomic environment, an improved business environment, increasing exports and regional integration and fiscal and monetary discipline in government, Kenya is expected to be one of Africa's key growth centres (World Bank, 2015a).

2.4 ENVIRONMENT

Kenya is in East Africa, bordered by South Sudan, Ethiopia, Somalia, Tanzania, Uganda, Lake Victoria, and the Indian Ocean. The country's terrain can be divided into the following geographic regions: the Lake Victoria basin, the Rift Valley and associated highlands, the eastern plateau forelands, the semiarid and arid areas of the north and south and the coast. The climate is characterised by dry seasons that occur from December to March and June to August as well as a wet season that runs from March to May. Sufficient, reliable precipitation for agriculture occurs around the Lake Victoria basin, in the Rift Valley and along the southern coast. About a third of the country, particularly the western regions and coasts, are infested with tsetse flies and mosquitoes, which are responsible for trypanosomiasis and malaria (Ntarangwi, 2015).

3. HEALTH SYSTEM

3.1 OVERVIEW

The Kenyan health system faces several challenges, including declining health budgets, health-care worker shortages, system inefficiencies, persistently poor service quality and lack of equity. Budget prioritisation, for example, is disproportionately skewed towards tertiary and secondary facilities,

which receive approximately 70% of the budget, whereas primary health centres serve the majority of patients (Nyakundi et al., 2011).

Kenya's burden of disease is largely comprised of communicable diseases, although non-communicable diseases such as cardiovascular disease and cancer are increasing. Infant and under-five mortality in Kenya has improved substantially, while improvements in neonatal and maternal mortality have stagnated, with Millennium Development Goals (MDGs) 4, 5, and 6 unlikely to be attained (Nyakundi et al., 2011). However, many are optimistic about the potential health impact of Kenya's growing innovation landscape.

3.2 ORGANIZATION

Health sector governance is devolved, with one national government and 47 county governments. Individual county governments have relative autonomy, while the national government leads overall health care strategy and prioritisation. The National Health Policy ensures checks and balances and separation of powers between the two levels of government in health care delivery (Government of Kenya, 2014).

The four tiers comprising the Kenyan health system are described as follows (Government of Kenya, 2014).

1. **Community level**: this forms the foundation of service delivery and includes all non-facility based health and related services, including health promotion.
2. **Primary care level**: this is the first formal level of care and includes all dispensaries, health centres, and maternity and nursing homes.
3. **County level**: this includes the first level of hospitals, with services that complement the primary level of care. A wider and more comprehensive package of client services is offered here.
4. **National level**: this includes tertiary level hospitals with highly specialised services.

In addition to these services, private and faith-based organisations work with the ministry of health to expand service delivery (PSP4H, 2014).

3.3 CAPACITY

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

Indicator/year	Data
Public sector (2010)[a]	
Tertiary hospitals	4
Secondary hospitals	10
Primary hospitals	225
Other hospitals	22
Health centres	473
Dispensaries	2393
Nursing homes	3
Standalone voluntary HIV counselling and testing clinics	20
Private sector (2010)[a]	
Primary hospitals	40

Other hospitals	152
Health centres	248
Nursing homes	963
Number of clinics	152
Laboratories	1921
Standalone voluntary HIV counselling and testing clinics	52
Dental clinics	11
Physicians per 1 000 population (2013)	0.2[b]
Nurses and midwives per 1 000 population (2013)	0.9[b]
Clinical officers per 1 000 population (2010)	0.15[a]
Pharmacists per 1 000 population (2010)	0.12[a]
Public health officers per 1 000 population (2010)	0.33[a]

Sources: [a] Luoma et al. (2010); [b] World Bank (2015b).

An estimated 72% of private facilities are run commercially, 7% by non-governmental organisations, and 22% by faith-based organisations (PSP4H, 2014).

With a growing population, the demand for infrastructure and health-care services has increased. Significant inequities exist within Kenya's health system due to underlying socioeconomic, gender and geographical disparities (Nyakundi et al., 2011). In addition to structural issues, drug counterfeiting, the prevalence of unlicensed providers and a low number of health care professionals pose significant challenges to strengthening capacity. Health care workers are also unevenly distributed between urban and rural areas. According to the Kenya Health System Assessment, "Rural dispensaries have 20 percent fill rates of their nursing establishments, while district hospitals have 120 percent fill rates. Approximately 25 percent of the human resources for health budget for the entire public sector is taken up by the two referral hospitals" (Luoma et al., 2010).

3.4 POLICY ENVIRONMENT

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

> The Government's three-pillar Vision 2030 and the Second Medium Term Plan (2014-2018) aim to deliver amongst others, accelerated and inclusive economic growth, higher living standards, better education and health care, and through which Kenya aims to attain the Millennium Development Goals (MDGs). The Kenya Health Policy (2014-2030) defines the country's long-term intent in health. The overall objective of this policy will be to attain universal coverage with critical services that positively contribute to the realization of the overall policy goal. The target of the policy is to attain a level and distribution of health at a level commensurate with that of a middle-income country, with specific impact targets of attaining a 16% improvement in life expectancy; a 50% reduction in annual mortality from all causes; and a 25% reduction in time spent in ill health.
>
> The Right to Health for every Kenyan is affirmed through a recent comprehensive Bill of Rights. Governance structures fundamentally changed from a previously centralized structure to a two-tier system comprising the National Government and 47 devolved County Governments. The counties are the units of service delivery and resource allocation. These orientations require restructuring of health governance and health care delivery

systems to align with the Constitution. A health bill is under development to consolidate, harmonize and update all health related legislation, and to align it with the Constitution.

In addition to the many interventions and investments introduced to address the high burden of communicable diseases and contribute to the overall improvement in health, Kenya has also ratified the FTCT and made some inroads in its implementation, especially in the areas of control of smoking in public places, and advertising, sponsorship and promotion. A STEPs Survey and a global youth tobacco survey are underway. These are expected to provide comprehensive information on the magnitude of NCDs (non-communicable diseases) in the country.

However notable challenges still exist in coordinated epidemic preparedness and response, communication, skills distribution and management of human resources for health, financing of health for universal coverage, partnerships framework and instruments for an effective devolved health system.

WHO (2014) lists the following five strategic priorities for Kenya:

1. Reduce the burden of communicable diseases, including HIV/AIDS, tuberculosis, malaria, neglected tropical diseases, and vaccine-preventable diseases, using disease control strategies including prevention, treatment, elimination, and eradication.
2. Halt/stabilize and reverse the rising burden of non-communicable conditions, injuries of violence, and disability through comprehensive sector wide evidence-based policy options and strategies coupled with robust monitoring and evaluation systems informed by a continuous research agenda.
3. Improve health outcomes and embrace healthy lifestyles in a supportive and enabling risk mitigating environment through the course of life for improved quality of health and increased health adjusted life expectancy.
4. By 2019, the country has a responsive, client-centred, technologically driven and sustainable health system that is facilitating movement towards universal health coverage with defined quality health and related services, with protection from catastrophic health expenditures.
5. Have adequate capacity for disaster preparedness, surveillance, and effective response to disease outbreaks, acute public health emergencies, and the effective management of health-related aspects of humanitarian disasters to contribute to health security.

3.5 HEALTH FINANCING

Table 3. Health financing data for Kenya, 2014

Indicator	Data
Total health expenditure (current US$)	US$ 3 485 747 000
Public expenditure on health as percentage of total expenditure	61.2
Public expenditure on health as percentage of general government expenditure	12.8
OOP expenditure on health as percentage of total private expenditure	67.4
Private insurance expenditure on health as percentage of total private expenditure	21.7

Expenditure of non-profit institutions serving households as percentage of total private expenditure	4.9
External funding (current US$)	960 303 000
Health expenditure as percentage of GDP	5.7

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

Various actors finance health-care services in Kenya including government, external donors, the private sector and out-of-pocket (OOP) payments from individuals. It is estimated that most OOP payments are to private health care providers (PSP4H, 2014). Even though health care services are provided at no cost in government facilities, geographical constraints make it difficult for people living in rural areas to access health facilities, which may result in their incurring significant travel costs to access services. The health system does not have the capacity to provide care to all Kenyan citizens, and subsequently, most people use private health care providers to purchase medicines (PSP4H, 2014). The cost associated with accessing health care is a major factor in perpetuating poverty in Kenya (Muiya & Kamau, 2013). High health-care costs have also resulted in 38% of patients not seeking care and another third resorting to self-medication (Government of Kenya, 2007). Another 15.3% who lack sufficient funds run into debt or sell personal assets to offset health expenses (Nyakundi et al., 2011).

Kenya's health insurance scheme is known as the National Health Insurance Fund, which was introduced in 1966 to serve employees in government and the private sector who earned more than 1 000 Kenyan shillings (US$ 9.76, rate at 9 November 2015). A major challenge in the scheme has been the integration of the expanding informal sector and inclusion of the poor (Mathauer, Schmidt & Wenyaa, 2008).

3.6 COUNTRY DISEASE PROFILE

Table 4. Disease profile for Kenya

Indicator/year	Data
Age-standardized DALYs per 100 000 for communicable diseases (2012)	34 731[a]
Age-standardized DALYs per 100 000 for non-communicable diseases (2012)	22 461[a]
Age-standardized DALYs per 100 000 for injuries (2012)	5 386[a]
Under-five mortality rate per 1 000 live births (2015)	49[b]
Infant mortality rate per 1 000 live births (2015)	36[b]
Maternal mortality rate per 100 000 live births (2015)	510[b]
Estimated cases of malaria (2013)	6 500 000[a]
Estimated deaths due to malaria (2013)	9 900[a]
Prevalence of TB per 100 000 (2014)	266[a]
Incidence of TB per 100 000 (2014)	246[a]
Deaths due to TB among HIV-negative people per 100 000 (2014)	21[a]
Prevalence of HIV as percentage among adults aged 15–49 (2014)	5.3[c]

Deaths due to AIDS (2014)	33 000[c]
Deaths due to non-communicable diseases (2012)	98 400[a]
Deaths due to homicide (2012)	3174[a]
Percentage of top five causes of mortality (2012)[d]	
1. HIVAIDS	14.8
2. Lower respiratory infections	12.3
3. Diarrhoeal diseases	6.3
4. Protein-energy malnutrition	4.1
5. Birth asphyxia and birth trauma	4.0
Top five causes of DALYs (2012)[d]	
1. Maternal/neonatal/nutritional	ND
2. HIV/TB/malaria	ND
3. Other infectious diseases	ND
4. Acute respiratory infections	ND
5. Other non-communicable diseases	ND

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

Kenya has a significant burden of communicable diseases, with recent outbreaks of new or re-emerging conditions such as polio and viral haemorrhagic fevers (e.g. dengue). Efforts at prevention of diarrhoeal diseases are being scaled up, yet these remain one of the major causes of childhood morbidity and mortality in Kenya, particularly in areas where there are shortages of safe drinking water, adequate sanitation, malnutrition and pollution of food sources (WHO, 2009).

According to the WHO, the infant and under-five mortality rates in Kenya have improved substantially. The most recent figures show 36 and 49 per 1 000 live births, respectively (World Bank, 2015b), while these figures were as high as 77 and 115 in the 1990s (WHO Regional Office for Africa, 2009). However, improvements in maternal and neonatal mortality rates have stagnated since 1993. As a result, Kenya is not on track to meet key targets in the MDGs 4, 5, and 6. Furthermore, wide disparities in health status across the country are closely linked to underlying socioeconomic, gender and geographical disparities (Government of Kenya, 2015).

4. INNOVATION ECO-SYSTEM

United States President, Barack Obama, recently called Kenya a “hot bed of innovation” (Baker, 2015), with innovations across different sectors such as education, health care and information and communications technology. There are a number of incubators and organizations supporting innovation such as the iHub lab (iHub, 2015). The Vision 2030 Awards (Colaço, 2012), for instance, provides an example of the efforts made by the government and the private sector to recognise and foster innovation. Nairobi has been noted as an African technology hub due to a supportive government. Incubators such as iHub and the mobile payment revolution that launched the M-PESA, a mobile payments system, were first developed in 2007 (Economist, 2012). Kenya also has a growing health innovation sector, with over 180 health care innovations identified in the private sector by the Center for Health Markets Innovations (Nkirote, 2014).

REFERENCES

Baker, Aryn. 2015. "Obama Sees Kenya as a Hotbed of Innovation - Not Terror." *Time*. http://time.com/3972179/obama-kenya-global-entrepreneur-summit/.

British Broadcasting Corporation. 2012. "Kenya Church Attacks 'Kill 15' in Garissa." http://www.bbc.com/news/world-18662975.

———. 2015. "Kenya Profile - Timeline." http://www.bbc.com/news/world-africa-13682176.

Colaço, Jessica. 2012. "Vision 2030 ICT Innovation Awards." *iHub Blog*. http://www.ihub.co.ke/blogs/6647.

Government of Kenya. 2007. "Kenya Household Health Expenditure and Utilisation Survey Report." Nairobi. http://www.ihpmr.org/wp-content/uploads/2012/10/Household-Health-Expenditure-Survey-Report-2007_FINAL-DRAFT_30-Jan-09_edLM.pdf.

———. 2014. "Kenya Health Policy 2014-2030." Nairobi.

iHub. 2015. "The iHub." http://www.ihub.co.ke/.

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.

Luoma, Marc, Julie Doherty, Stephen Muchiri, Tiberius Barasa, Kate Hofler, Lisa Maniscalco, Charles Ouma, Rosalind Kirika, and Josephine Maundu. 2010. "Kenya Health System Assessment 2010." Bethesda, Maryland, USA: Abt Associates Inc. http://www.cmamforum.org/Pool/Resources/Kenya-HSA-Report-Final-2010.pdf.

Mathauer, Inke, Jean-Olivier Schmidt, and Maurice Wenyaa. 2008. "Extending Social Health Insurance to the Informal Sector in Kenya. An Assessment of Factors Affecting Demand." *The International Journal of Health Planning and Management* 23 (1): 51–68. doi:10.1002/hpm.914.

Muiya, Bernard Munyao, and Anne Kamau. 2013. "Universal Health Care in Kenya: Opportunities and Challenges for the Informal Sector Workers." *International Journal of Education and Research* 1 (11): 1–10. http://ir-library.ku.ac.ke/handle/123456789/12224.

Nkirote, Lucy. 2014. "CHMI Celebrates Kenyan Health care Innovations." *Center for Health Market Innovations Blog*. http://healthmarketinnovations.org/blog/chmi-celebrates-kenyan-health care-innovations.

Ntarangwi, Mwenda, Kenneth Ingham, and Simeon Hongo Ominde. 2015. "Kenya." *Encyclopaedia Britannica*. Britannica. http://global.britannica.com/place/Kenya.

Nyakundi, Caroline Kwamboka, Caroline Teti, Howard Akimala, Esther Njoya, Matthias Brucker, Richard Nderitu, and Joshua Changwony. 2011. "Health Financing in Kenya: The Case of RH/FP." Nairobi: German Foundation for World Population and Institute For Education In Democracy. http://www.dsw.org/uploads/tx_aedswpublication/2011_HealthyAction_BudgetStudy_Kenya.pdf.

Private Sector Innovation Programme for Health. 2014. "A Formative Survey of the Private Health Sector in the Context of the Working Poor." Nairobi: PSP4H. http://www.psp4h.com/wp-content/uploads/2014/04/Formative-Survey-Report.pdf.

Republic of Kenya. 2015. "Kenya Demographic and Health Survey 2014." Nairobi. http://dhsprogram.com/pubs/pdf/PR55/PR55.pdf.

The Economist. 2012. "Upwardly Mobile: Kenya's Technology Start-up Scene Is about to Take off." *The Economist*, August. http://www.economist.com/node/21560912.

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.

United Nations Development Programme. 2013. "Income Gini Coefficient." http://hdr.undp.org/en/content/income-gini-coefficient.

———. 2014. "Human Development Report 2014." New York: United Nations Development Programme.

———. 2015. "Human Development Report 2015." New York.

World Bank. 2015a. "Kenya: Overview." http://www.worldbank.org/en/country/kenya/overview.

———. 2015b. "World Development Indicators." Washington, DC: World Bank. http://data.worldbank.org.

World Health Organization. 2009. "WHO Country Cooperation Strategy 2008-2013: Kenya." Brazzaville, Republic of Congo: World Health Organization.

———. 2015a. "Global Health Expenditure Database." http://apps.who.int/nha/database.

———. 2015b. "Global Health Observatory Data Repository." Geneva: World Health Organization. http://apps.who.int/gho/data/node.main.

———. 2015c. "Kenya: WHO Statistical Profile." Geneva: World Health Organization. http://www.who.int/gho/countries/ken.pdf?ua=1.