



**Uganda**

## Uganda Country Report



The Republic of Uganda is located in East Africa and is bordered by Kenya, Sudan, the Democratic Republic of Congo, Rwanda, and Tanzania. A large portion of the southern part of Uganda is bordered by Lake Victoria, the African continent's largest lake. The official languages of the Republic of Uganda are English and Swahili, and the currency is the Ugandan shilling (UGX). 51% of the population is female and 49% male, with an annual growth rate of 2.5%.

### History

The Republic of Uganda was created on October 9<sup>th</sup>, 1962. The Ugandan colonial experience began in 1888 when the British government placed the territory under the charter of the British East Africa

Company, and was later formerly ruled as a protectorate by the British from 1894-1962. The territory that we now recognize as the Republic of Uganda was consolidated, and named Uganda, by the British in 1914. Following Ugandan independence, the country faced a series of coups and counter-coups which were eventually quelled by the commander of the Ugandan army, Idi Amin in 1971. The period under which Idi Amin's retained the presidency through his military dictatorship, ushered in a period of human rights abuses, political repression, ethnic persecution, extrajudicial killings and forcible removal of the Indian populations from the country. An estimated 300,000 (exact numbers are difficult to obtain) were killed during the eight years of Amin's rule. Idi Amin's rule fractured in 1979 as a result of the Uganda-Tanzania War.

Following the Amin's overthrow, Milton Obote served as president until he was deposed by General Tito Okello in 1985. Okello served for six months until he was deposed by the current president of the Republic of Uganda, Yoweri Museveni, on January 29<sup>th</sup>, 1986. Museveni's

economic policies have been successful in partially stabilizing the economic downturn which began in 1971 under Amin. However, one-third of the Ugandan population still live below the poverty line, and the WHO reports that there is "a high association between gender and poverty [due to] a power imbalance within the community which has tended to marginalize women further and make them even poorer." (Uganda: Burden of Disease, Social Context)

Museveni's reign has also resulted in approximately 5.4 million deaths since 1998 as a result of his Second War with the Congo, and other conflicts in the Great Lakes region. The north of Uganda remains unstable in which the Lord's Resistance Army has been responsible for



catastrophic humanitarian crises. Despite these criticisms, President Museveni's national HIV/AIDS program is reported to be one of the most effective on the African continent. According to a research and information sharing organization called, A Dollar A Day, "unlike many of its neighboring countries, Uganda has also managed to cut HIV/AIDS rates from 18% of adults to around 6% over the last 15 years (in a large part, because of internationally funded HIV/AIDS awareness campaigns)." (Case Study #5: International Aid in Uganda)

General Facts	
Capital	Kampala
Total Population	30,900,000
Kampala Population	1,653,976
Total Area	235,040 square kilometers (91,136 sq mi)
Kampala Area	176 square kilometers (68 sq mi)
Gross national income per capita	880 USD
Life expectancy at birth m/f	48/51 years
Infant Mortality Rate	81 deaths/1,000 live births
Total expenditure on health per capita	143 USD
Total expenditure on health, % of GDP (2006)	7.2%

## Economy

Agriculture is the most important sector of the Ugandan economy employing approximately 80% of the work force. The Services and Industrial sectors, comprising 13% and 5% of the economy respectively, have seen modest growth over the decade. Uganda relies heavily on the production and export of coffee, accounting for 15% of its GDP, as well as the harvesting of fish (12% of GDP). Uganda is currently seeing tremendous growth, due in part to policies established throughout the 1990s and due to increases in domestic savings rates. "During 1990-2001, the economy turned in a solid performance based on continued investment in the rehabilitation of infrastructure, improved incentives for production and exports, reduced inflation, gradually improved domestic security, and the return of exiled Indian-Ugandan entrepreneurs."

(Nationmaster) Investment has also increased as percentage of GDP from 15.5% in 2003 to 17% in 2007. GDP growth has been strong over the last three years (6.9% in 2008, 8.6% in 2007, 6.6% in 2006), while per capita GDP has remained constant (\$1,100 for 2006, 2007, and 2008). Uganda has also worked hard to reduce its foreign-held debt, both through domestic programs to increase savings and also through working with foreign nations towards debt forgiveness. "In 2000, Uganda qualified for enhanced Highly Indebted Poor Countries (HIPC) debt relief worth \$1.3 billion and Paris Club debt relief worth \$145 million." (Nationmaster)

## National Health Profile

The World Health Report in the year 2000 ranked Uganda's health profile 186<sup>th</sup> out of 191 countries worldwide. This is in large part due to the years of political and economic instability following Ugandan independence in the 1960s through the 1990s. The dire health profile has had a tangible impact on poverty in Uganda, and the Uganda Participatory Poverty Assessment Project reported that illness was the "most consistently cited reason for persisting poverty in Uganda." (Uganda: Country Cooperation Strategy)

The prevalence of tuberculosis is 646 per 100,000 population and the incidence is 402 per 100,000. HIV prevalence among adults between the ages of 15 and 49 is 4.1% (WHO African Region HIV prevalence among the same population is 7.1%). The WHO reports a greater incidence of HIV among women compared to men.

Main Causes of Morbidity
HIV/AIDS
Malaria
Lower Respiratory Infections
Diarrhoeal Disease
Perinatal Conditions
Tuberculosis
Cerebrovascular Disease
Ischemic Heart Disease
Measles

## National Health Care Structure

Human Resources for Health, 2004	
Categories	2004
Physicians	2,209
Nurses	16,221
Midwives	3,104
Lab Technicians	1,702
Dentists	363
Pharmacists	688
Others	4,128

The WHO reports that only 49% of Ugandan households have access to health care facilities. Poor infrastructure is a significant limiting factor, especially in the rural Uganda, home to the majority of the population. The 51% of Ugandans who have access to health care are limited by the significant co-payments they are required to make towards their health expenses. Thirty percent of healthcare is paid for by the government while the remaining 70 percent is paid privately. Of this private expenditure

on healthcare more than half is paid out of pocket by the patient.

In response to this health care need, the Government of Uganda developed a Health Sector Strategic Plan (HSSP) to improve the access to health care by funding health-care facilities in rural areas to address the immediate health needs of the rural populations. The WHO notes that "the human resource base for the health sector is grossly inadequate. Therefore in the first few years of the implementation of HSSP, capacity building of the human resource base is one important aspect that the Government is addressing." (Health Systems)

In addition to the HSSP, a Poverty Eradication Action Plan (PEAP) was created by the Government of Uganda in 1997 to alleviate poverty, and improve the health, education, and economic status of the people and country.

Mulago National Referral Hospital is the largest hospital in Uganda located in the capital Kampala. It serves as the teaching hospital for Makerere University School of Medicine, the oldest medical school in Uganda and was founded in 1917. The hospital has an estimated 1,500 beds and an annual budget (2007) of 5 billion shillings (approximately US\$2.7 million)

Uganda's pyramidal health system includes 102 hospitals of which 2 are National Public Referral hospitals, 11 Regional and 43 are General/District hospitals. The remaining hospitals are private, not for profit faith based hospitals. Health centers IV, III, II and I offer varying low level health care mainly primary health care.

Uganda has approximately 28,000 miles of roads, of which only about 1850 miles are paved. Most roads in Uganda originate from Kampala. The country has a decaying railway system (800 miles) most of which is no longer in use and unmaintained. The main railroad originates in Mombasa on the Indian Ocean and connects with Tororo, where it branches westward. Uganda's important road and rail links to Mombasa serve its transport needs, in addition to the needs of its neighbors – Rwanda, Burundi, and parts of Congo and Sudan. “An international airport is at Entebbe on the shore of Lake Victoria, some 32 kilometers (20 mi.) south of Kampala.” (Uganda Economy)

## **Availability of Radiology Resources**

The national referral hospitals have MRI, CT, SPECT, Fluoroscopy, Ultrasound and plain radiography. The regional hospitals are equipped to perform Fluoroscopy, Ultrasound and plain radiography. The national and referral hospitals are manned by radiologists. At District hospitals we have Ultrasound and plain radiography. Only Ultrasound is available at HCIVs and a few HCIIIs and these are manned by radiographers and sonographers. The public sector is subsidized by the private sector where you find the non-governmental hospitals, private imaging hospitals with facilities almost to the level of the national hospitals found only in the capital, Kampala. There are many small units with US and plain radiography or either of the two. Currently, there is no accurate account of the actual numbers of imaging facilities in the country.

There are 30 radiologists in the country, giving a ratio of 1:1,000,000, and each radiologist performs 19,600 examinations a year compared to 12,000 in the US. Most of the imaging is done by radiographers and sonographers near the capital city limiting the access to imaging for the majority of Ugandans. The radiographers make the images and these are interpreted by doctors working at the facilities who have very little exposure to radiology as undergraduates in their training. All special examinations are done at the national and referral hospitals.

## **International Aid**

Uganda receives aid primarily from the International Development Association (IDA) and OECD countries. The total amount of aid Uganda received in 2003 was 977 million USD. Approximately one-third of that total, 320 million USD, came from the IDA, and twenty percent (191 million USD) came from the United States. The third largest contributor to Uganda in 2003 was Britain, supplying 106 million USD (11% of the total). The majority of this aid was invested in health, education, and program assistance. (Case Study #5: International Aid in Uganda)

## **Conclusions**

The research has demonstrated the scarcity of radiologists, biomedical engineers and radiographers, shortage of machines, frequent machine breakdown and delayed repairs. Additionally, since the country and donor's efforts have been focused on primary health care, it is difficult to find resources for the technologies that are required for imaging.

Some steps have been made to overcome these challenges. The government has offered 3 scholarships per year to train radiologists, and radiologists are training radiographers and clinical officers in pattern recognition to help with the interpretation of basic x-rays. Also radiographers and midwives are being trained to do US and so be able to recognize emergencies especially for pregnant women. This has helped with manpower problems so that more people can receive services. A course for training biomedical technologists has also been introduced.

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