

Ghana's Health Challenges Are Exacerbated by Poverty, Rural-Urban Divisions, and the Inequitable Distribution of Health Care Resources to Underserved Areas

Abstract: *Ghana's health challenges are not unique to West African nations. The leading causes of death for children under 5 and for the entire population resemble those of some of its neighbors, though it is doing better in comparison to the region. Communicable diseases such as malaria and HIV/AIDS are leading killers of all Ghanaians. The sub-Saharan nation also suffers from widespread poverty, a dearth of health care workers, and a misallocation of national health resources that contributes to health inequality between the country's mostly rural north the rest of the nation. The country's health reforms, driven by a national policy to promote access to high quality health for all Ghanaians, have not led to an increase in total government appropriations for health services. Foreign assistance, from multilateral lending bodies and nations, continues to play a vital role supplementing the Government's overall health care spending focusing on communicable disease, such as HIV/AIDS and malaria.*

Introduction: Though the prevalence of non-communicable diseases in Ghana is rising, the nation's primary causes of death are under 5 child mortality, HIV/AIDS, and malaria.¹ The challenges match health issues facing sub-Saharan African nations (see appendix 1).² The major causes of child mortality are malaria, diarrhea, respiratory infections, and neonatal conditions. For adults, the major causes of mortality are HIV infection, malaria, respiratory infections, perinatal conditions, and cerebrovascular and ischemic heart diseases.³ In our case, Paul's sister, in the impoverished north, experienced a concurrence of health complications from HIV, malaria, and anemia, and perhaps an opportunistic TB infection. Her death also can be seen as an outcome inadequate health resources that may have missed a TB diagnosis, likely poverty, and also a lack of health care services and specialists in the country's northern provinces.^{2,4} The 25-million-person nation has

| Causes of death in children under 5, Ghana, 2000-2003 | | |
|---|------------|-------------------|
| Causes | Deaths (%) | Regional Avg. (%) |
| Neonatal causes | 28 | 26 |
| HIV/AIDS | 6 | 7 |
| Diarrheal diseases | 12 | 17 |
| Measles | 3 | 4 |
| Malaria | 33 | 17 |
| Pneumonia | 15 | 21 |
| Injuries | 3 | 2 |

| Top causes of death, all ages, Ghana, 2002 | | |
|--|--------------------|-----|
| Causes | Deaths (per 1,000) | (%) |
| All causes | 207 | 100 |
| HIV/AIDS | 30 | 15 |
| Malaria | 23 | 11 |
| Perinatal conditions | 16 | 8 |
| Respiratory infection | 16 | 8 |
| Cerebrovascular disease | 11 | 6 |
| Ischaemic heart disease | 10 | 5 |
| Diarrheal diseases | 9 | 5 |
| Tuberculosis | 8 | 4 |
| Road & traffic accidents | 5 | 3 |

Source: World Health Organization (WHO)¹

fewer than 3,300 physicians and less than 20,000 nurses, placing the size of its health workforce behind the regional average for Africa.⁴

Urban-Rural and Geographic Divisions Impact on Disease and Health Care Delivery:

Today, slightly more than half of the nation lives in urban areas (see appendix 1). However, data from multiple indices reveal great inequity in Ghana, between the northern half of the country and other provinces, as seen in level of poverty and the division of health resources (see appendix 2 and 3).^{2,5,6} Today, 10% of the population remains malnourished, and nearly 30% the population gets by less than \$1.25 a day—and most in this group live in the three and least-populated rural northern provinces (see appendix 2 and 3).^{7,8} In the capital, Accra, in the south, poverty levels are only 2%. By comparison in rural areas, that level often is nearly 70%, and in the north, 9 in 10 Ghanaians live in poverty (see appendix 2).⁷ Rural areas also experience higher incidence of under 5 mortality, fewer health care professionals attending to births, and lower rates of immunizations (see appendix 3).⁴

The patterns of the major diseases impacting Ghana, therefore, should be understood by the underlying social, economic, and political factors, as these structural causes impact what have been called “diseases of marginalization and deprivation.”⁹ As seen in the case, Paul’s sister died of several factors, including living in a region where health problems are amplified by poverty and lack of resources. Ghana’s greatest public health problems occur in the north of the country, a rural area with 1.8 million residents that remains the poorest and where healthcare access is unequally distributed.^{2,6,10} The nation’s health care system, especially in the north, has been hampered by its health professionals leaving Ghana for better paying positions in other nations.⁷ Ghanaian health workers interviewed in 2008 noted that the health care system’s greatest challenge was the shortage of trained workers and policies to improve equity.⁶ Health professionals who were not doctors considered incentive packages for some workers in remote, rural areas to be inadequate. One 25-year veteran nurse in northern Ghana described a meager salary (\$80 month), living in the bush, and no schooling for her children.⁶

National Health Strategy: The country’s health strategy since 2005 has focused on creating more equity in access to health care in rural areas, mostly in the north, and more stable financing to attract and retain health care professionals, all through the Ghana Health Service (GHS).¹¹ Bridging inequities in access to health care is a national health policy goal. The Ministry of Health’s mission statement notes it “will work in collaboration with all partners to ensure that

every individual, household and community is adequately informed about health and has equitable access to high quality health and related interventions.”¹² The policy framework for the national health care system focuses on the nation’s greatest health problems, with the specific goals of^{2,6}:

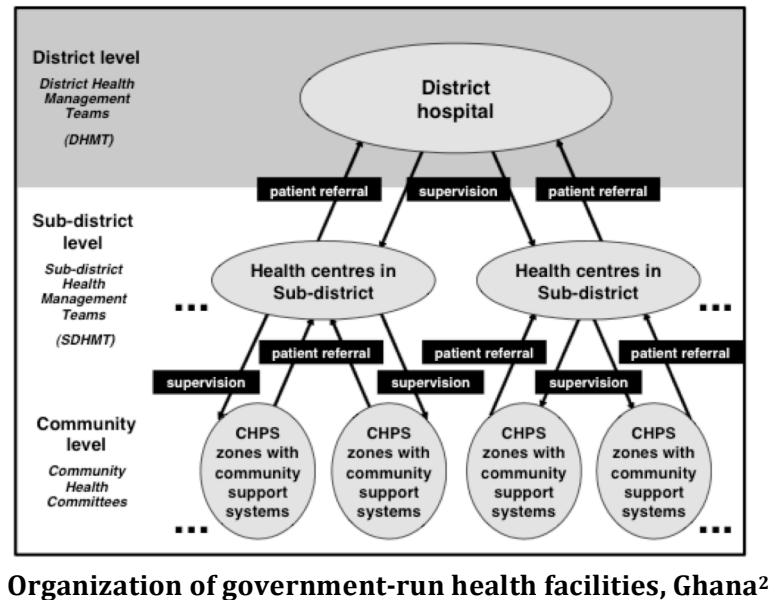
- Increasing equity of access to health care geographically, specific to primary and emergency care through community based health planning and services.
- Improving health access to the poor and reducing financial barriers blocking them from accessing services.

The country’s National Health Insurance Scheme (NHIS), created in 2003 and funded by a value added tax, has attempted to advance these policy goals. Today, 60 percent of the population is enrolled.⁵ Nationally, most general hospitals are either privately run or operated by missionaries, and visits to these facilities account for half of all health center visits.¹³ The GHS-run

facilities—health care centers, clinics, tertiary care—operate at the regional, district, and local levels. They account for more than half of all health facilities nationally. However, overall government spending for national health care has fallen from a peak of 9.1% of all government outlays in 1974 to 4.5% in 2003.^{1,14}

Despite the national strategy, access to primary health care facilities and potable water are considered inadequate.¹⁵ The government has created programs to boost immunizations, control communicable diseases such as malaria, TB, and HIV/AIDS; to support maternal and child health and family planning; and to strengthen the public and primary health care system in order to meet the health and social development Millennium Development Goals (MDGs).¹¹ Specifically since 2005, the government’s health strategy has focused on:¹¹

- Reducing under 5 mortality
- Improving the health status of the poor
- HIV/AIDS



Organization of government-run health facilities, Ghana²

- Preventing new infections of HIV
- Providing a continuum of care for people living with HIV/AIDS and their families.

Vertical Health Care Program Delivery and Funding: Programs specifically designed to eradicate diseases that disproportionately impact the poor also have singled out malaria, TB, Guinea worm, and polio.¹³ In 2009, for instance, Ghana participated in a major polio eradication campaign to immunize 74 million children in 11 West African countries. The effort in Ghana, lead by the First Lady, required 45,000 volunteers, who delivered oral polio vaccine house-to house, vaccinating 5.3 million children. Ghana shared costs in that \$5 million campaign with the WHO, UNICEF, and Rotary International. Clearly, disease specific programs are needed, in addition to funding primary care through government run health centers.¹⁶ In 2009, an estimated 1.8% of the population was estimated to be HIV positive.¹⁰ The government has boosted AIDS awareness activities and improved HIV monitoring. Approximately 320,000 persons live with HIV and AIDS, and another 170,000 children have lost one or both parents to the disease.^{4,7} But, only an estimated 30 percent of HIV cases are actually reported because of poor education and ill-equipped health services.⁷

Foreign donors play a major role in health care funding and delivery, notably in vertically oriented health care projects focusing on the major diseases killing Ghanaians. In 2011, the U.S. Agency for International Development (USAID), for instance, provided \$41.4 million to HIV/AIDS and malaria programs alone.¹⁷ However, comments from Ghanaian health workers noted that earmarked funds cannot be used beyond the specific program at the district health level.⁶ Critics of such vertical strategies, like USAID's targeted funding in Ghana and the Global Polio Eradication Initiative, claim that while technically driven efforts may succeed in the short term, they can be counterproductive long-term. Vertical health programs can distort national health systems and draw health care workers away from primary care.^{9,18}

Role of Foreign Assistance for Health Care Funding: Ghana remains heavily reliant on foreign assistance to promote government programs, such as health care and economic development in everything from cocoa to offshore oil production, now ramping up. The African Development Bank estimates that such assistance provides \$650 million annually, accounting for 10% of GDP.¹¹ Foreign aid in particular plays a vital role in funding health care programs targeting rural, poor residents and in boosting equity in access to health services. Such assistance for maternal and child health, sanitation, and family planning and reproductive health contributed

substantially to the country's health budget.^{6,17} As of 2006, 17% of all health care spending came from donor contributions.⁶ USAID health care funding to Ghana in 2011 totaled \$117 million, or 66% percent of all USAID support to the West African nation.¹⁷ But critics of donor earmarked funding claim this strategy allows donors to pick and choose regions, which often does not correspond to the Ministry of Health's priorities. Tracking of how such donor funds are spent also has proven difficult.⁶

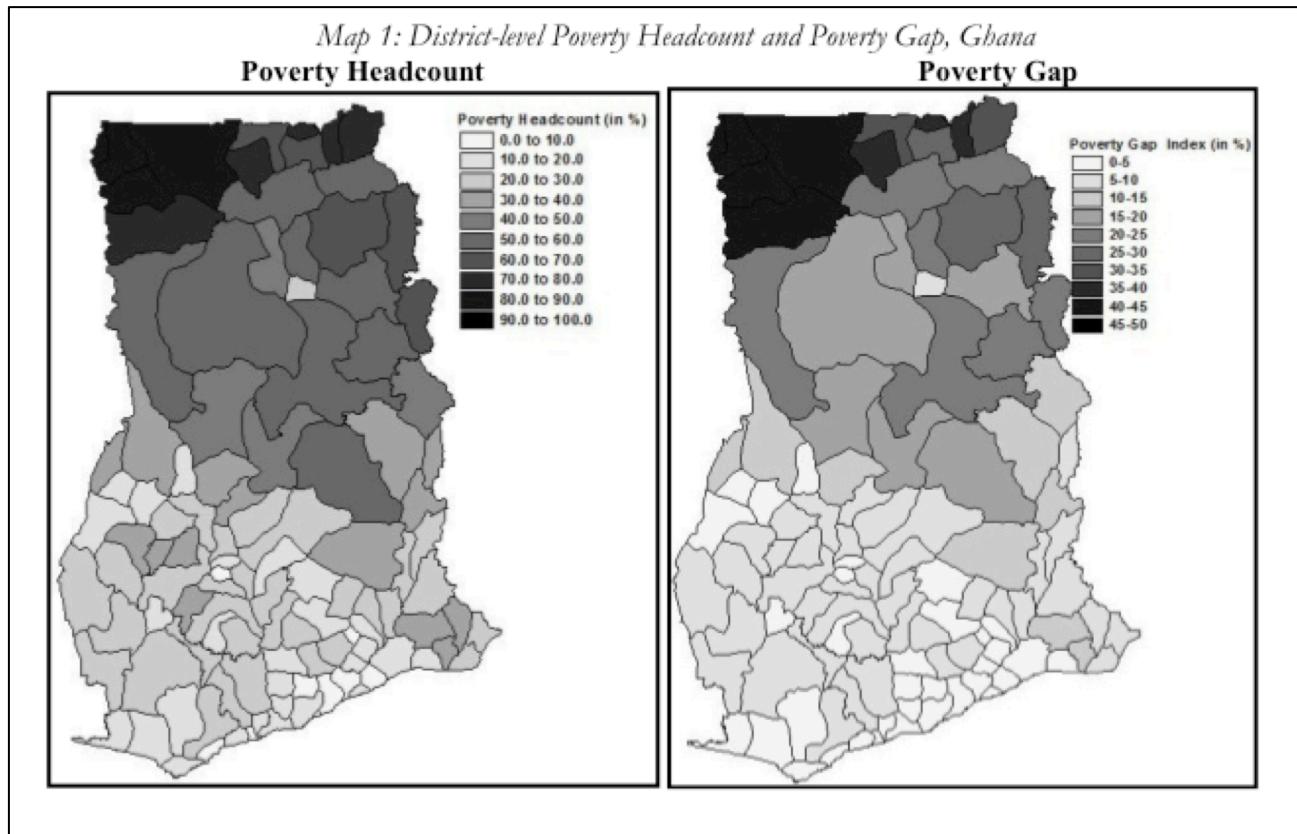
In addition to the USA, major foreign donors to Ghana include Canada, Denmark, France, Germany, Japan, Netherlands, and the United Kingdom. Multilateral donors include the European Union, UNDP, UNICEF, the International Monetary Fund (IMF), the World Bank, and the WHO.¹¹ Assistance is funneled via direct budget support, sector-based programs, so-called "basket funding" grants, and direct loans. For instance in 2009, the IMF approved a \$603 million loan to Ghana to shore up government deficits, which called for "structural adjustments" to curb public spending and to address inflation which was pegged at 20 percent that year.⁸ Critics of such "neoliberal strategies" to promote open markets and privatization of the public sector claim they decrease access to health care, lead to cost hikes and the unnecessary use of technologies and medicines for profit, and drain health professionals from the public sector upon which the majority of populations in developing nations depend.⁹

Back to the Case: Ghana's challenges eliminating disparities serving rural areas while addressing specific diseases with support of donor assistance remain large. While the country has made progress toward meeting its MDGs, particularly in reducing under 5 mortality, its health policy makers will require policy goals to better redistribute resources to geographic areas with the greatest health needs. Ghana's health workforce shortage has been called the "single biggest threat to the survival of the health system."⁶ Retaining health personnel, particularly in the north, where many districts operate on a skeletal staff already and have as few as 1 physician for every 75,000 residents,⁶ will require long-term strategies to train more health workers and specific formulas to ensure that health resources, including personnel, are directed to areas in Ghana with the greatest needs. Paul clearly has his work cut out in the Ministry of Health and now at home caring for his 3 nieces and nephew.

Appendix 1: Selected health indicators: Ghana and regional and global averages, 2009 (source, WHO)⁴

| | | Ghana | Regional Average | Global Average |
|--|---------------|--------------|-------------------------|-----------------------|
| Population living in urban areas (%) | | 51 | 38 | 50 |
| GNP per capital in USD | | 1,530 | 2,561 | 10,599 |
| Life expectancy at birth (years) | <i>Male</i> | 57 | 52 | 66 |
| | <i>Female</i> | 64 | 56 | 71 |
| | <i>Both</i> | 60 | 54 | 68 |
| Adult mortality rate (per 1,000 adults, 15-59 years), both sexes | | 332 | 383 | 176 |
| Under 5 mortality rate | | 69 | 127 | 60 |
| Maternal mortality rate (per 100,000 live births) | | 350 | 620 | 260 |
| Prevalence of HIV (per 1,000 adults 15-49 years) | | 18 | 47 | 8 |
| Prevalence of tuberculosis (per 100,000) | | 329 | 475 | 201 |

Appendix 2: Maps indicating pockets of poverty in Ghana (source, the World Bank)⁵



Appendix 3: Selected measurements of health inequities between urban and rural Ghana^{2,4}

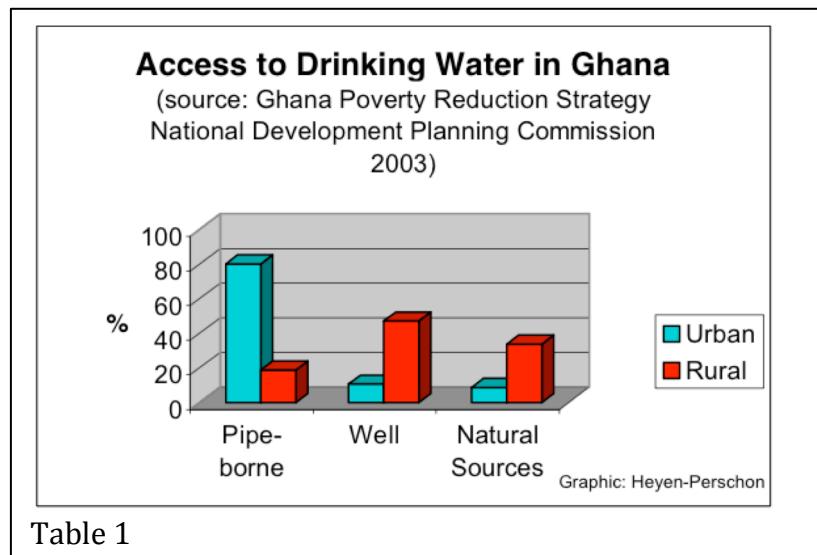
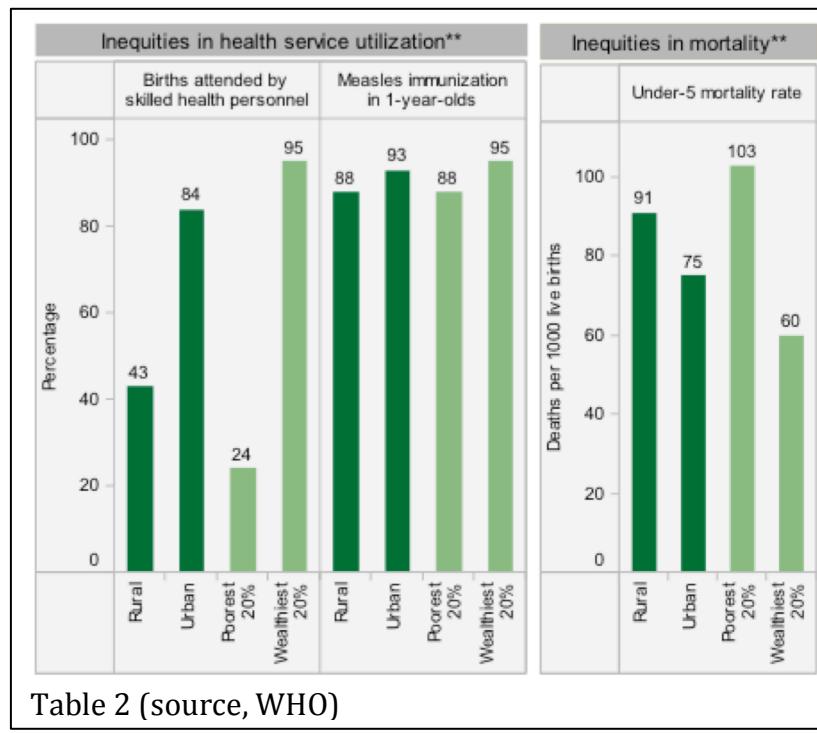


Table 1



References:

1. World Health Organization. Country health system fact sheet 2006, Ghana. 2006; <http://www.afro.who.int/en/ghana/country-health-profile.html>. Accessed September 29, 2011.
2. Heyen-Perschon J. *Report on current situation in the health sector of Ghana and possible roles for appropriate transport technology and transport related communication interventions*. Wohltorf, Germany: Institute for Transportation and Development Policy. 2005; http://siteresources.worldbank.org/offcampus.lib.washington.edu/INTTSR/Resources/ITDP_20Transport_20and_20Health0Care_20-_20Ghana.pdf. Accessed September 29, 2011.
3. World Health Organization. *Ghana: country cooperation strategy at a glance*. 2009; http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_gha_09_en.pdf. Accessed September 29, 2011.
4. World Health Organization. *Ghana: health profile*. 2011; <http://www.who.int/gho/countries/gha.pdf>. Accessed September 29, 2011.
5. The World Bank. *Republic of Ghana: improving the targeting of social programs*. 2011; http://www-wds.worldbank.org/offcampus.lib.washington.edu/external/default/WDSContentServer/WDSP/IB/2011/06/14/000333037_20110614050005/Rendered/PDF/555780ESW0gray0c060901100BOX361483B.pdf. Accessed September 29, 2011.
6. Asante AD, Zwi AB. Factors influencing resource allocation decisions and equity in the health system of Ghana. *Public Health*. 2009;123(5):371-377.
7. World Vision. *Information and facts about Ghana*. 2011; <http://www.worldvision.org/content.nsf/learn/world-vision-ghana>. Accessed September 30, 2011.
8. International Monetary Fund. *Ghana Gets \$602 Million IMF Loan, Readies Oil Production*. 2009; <http://www.imf.org/external/pubs/ft/survey/so/2009/CAR071609B.htm>. Accessed September 30, 2011.
9. Birn A-E, Pillay Y, Holtz TH. *Textbook on international health: global health in a dynamic world*. New York: Oxford University Press; 2009.
10. The World Bank. *Ghana: data and statistics*. 2011; <http://go.worldbank.org/FPHKW9BZ0>. Accessed September 29, 2011.
11. The African Development Bank. *Republic of Ghana: country portfolio performance review report*. 2009; <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Ghana%202009%20Portfolio%20Review.pdf>. Accessed September 29, 2011.
12. Asante AD, Zwi AB, Ho MT. Equity in resource allocation for health: A comparative study of the Ashanti and Northern Regions of Ghana. *Health Policy*. 2006;78(2-3):135-148.
13. Ghana Ministry of Health. *National health accounts Ghana, 2002*: World Health Organization. 2002;

http://www.who.int/nha/country/gha/Ghana_NHA_report2002.pdf. Accessed September 30, 2011.

14. World Health Organization. *Countries: Ghana*. 2011; <http://www.who.int/countries/gha/en/>. Accessed September 29, 2011.

15. Central Intelligence Agency. *The world factbook, Ghana*. 2011; <https://www.cia.gov/library/publications/the-world-factbook/geos/gh.html>. Accessed September 29, 2011.

16. World Health Organization. *Launch of National Immunization Days against polio*. 2010; <http://www.afro.who.int/en/ghana/press-materials/2317-launch-of-national-immunization-days-against-polio.html>. Accessed September 29, 2011.

17. U.S. Agency for International Development. *Fact sheet: FY 2008-11 USAID-state foreign assistance appropriations, Ghana*. 2011; http://www.usaid.gov/locations/sub-saharan_africa/countries/ghana/ghana_fs.pdf. Accessed September 30, 2011.

18. Gloyd S, Suarez Torres J, Mercer MA. Immunization campaigns and political agendas: retrospective from Ecuador and El Salvador. *Int J Health Serv*. 2003;33(1):113-128.