

## Haiti: Population Health Assessment *prior to the 2010 earthquake*

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*“Haiti is also extremely vulnerable to earthquakes. The country has eight fault lines; two of the most important are located as follows: one in the far north and the other crossing east to west. Seismic activity in Haiti in 2003-2005 has revived the specter of a possibly major earthquake (7-8 on the Richter Scale), which experts have been forecasting for several years. The extremely high rate of urbanization that has left the metropolitan region of Port-au-Prince commune with slightly more than two million inhabitants (10,000 – 18,000 persons per km<sup>2</sup>) will worsen the damage”.*

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Haiti is the third largest country in the Caribbean and the third most populous. It occupies an area of 27,750 square kilometers of primarily mountainous land in the western third of the Island of Hispaniola, neighboring the Dominican Republic. In 2009 its total population reached the mark of 10 million people. Haiti's population is predominantly young –almost 60% is under 24 years old– and rural (60%). Half of the population resides in two neighboring Departments of the 10 in which the country is divided: Ouest (37%, where the capital city Port-au-Prince is located) and Artibonite (16%). According to the 2003 Census, Haiti's annual population growth rate was 2.5%.

Haiti –the first black nation and the first country to gain independence in Latin America– has suffered recurrent periods of political instability and intermittent attempts at democracy. The vast majority of Haitians continue to live under severe precarious conditions, in poverty and marginalization. Haiti is considered to be the poorest country in the Americas, and one of the most unequal in terms of income distribution –66% of the nation's wealth is concentrated in just 4% of the population. More than half of the population are below the extreme poverty line of US\$ 1 a day, and about 2 out of 3 Haitians live with less than US \$ 2 a day. For the past two decades, the country's political and social crisis has had serious socioeconomic consequences. Haiti's Gross Domestic Product (GDP) has generally fell, translating into a negative average annual growth rate –from –0.3% to –1.1% per year. Per capita GDP has been falling even more precipitously, at around –2.8% per year. One-third (33%) of the economically active population is out-of-work and up to 70% of those employed are government workers. The economic impact of extreme events such as past droughts, hurricanes, and the 2004 floods, coupled with a climate of insecurity reaching critical levels, material losses, and economic disruption caused by political unrest early that year, contributed greatly to the 5.5% drop in GDP. The United Nations has referred to these dire circumstances as “the silent emergency”.

The country's official languages are Creole and French, but Creole is the everyday language used by all segments of society. Only 10% of the population speaks French, mainly those who have completed secondary schooling. According to the 2003 Census, about 40% of the population aged 10 and older is illiterate (46% women *vs* 36% men; 53% rural *vs* 20% urban). Slightly more than 1 of every 2 children aged 6 to 11 years attends primary school in rural areas, compared with 7 of every 10 in urban areas. There is a wide gap in the gross secondary-school enrollment ratios for children from more affluent households (71%) compared with those in the lowest income quintile (23%). In Haiti, 89% of the schools are private. Adding to the condition of high vulnerability of the school-aged population is the fact that 11% of them —that is, half a million children under 18— are orphan from one or both parents.

With harshly limited economic growth and resources, and severe infrastructure problems, Haiti remains highly vulnerable to environmental degradation. Due to its mountainous geography, its high population density, and profound poverty and social inequalities that forces the poor to turn to nature for survival, Haiti relies upon a disproportionate amount of steep hillsides to meet much of its agricultural production. The overwhelming environmental problem of the country is thus soil erosion, exacerbated by deficient farming practices. This has led to declining crop yields, damage to downstream lands and water development projects, the destruction of coastal marine resources and the inability to keep up food production with the population needs. The widening of the trade deficit due to a rise in imports, notably food products, has been largely responsible for the devaluation of the country's currency and an increase in the cost of living. Consequently, the population's nutritional status is eroded by inaccessibility to highly nutritional foods and a lack of access to enough food. More than 40% of households experience food insecurity, and at least 12% of women are below the critical threshold for chronic energy deficiency.

Haiti chronically experiences significant water and sanitation problems. In 2006, 42% (30% urban *vs* 49% rural) of the population lacked access to safe water and 81% (71% urban *vs* 88% rural) did not have access to adequate sanitation. This amounts to 8 million people without access to water and/or sanitation, a relative increase of 5% in population underserved since 2001. Acute diarrheal disease is highly prevalent: 2 out of 5 children aged 6 to 11 (40%), as well as 1 out of 4 children less than 5 years (25%) experienced one or more episodes of diarrhea in any two-weeks period. All other age groups are also disproportionately affected.

The precariousness of the Haitian's health care system is reflected at all levels: low regulatory and supervisory capacity by the national health authority, inaccessibility to health care services, health information systems deeply fragmented and poorly developed, essential public health functions unassumed by the national health authority, essential drugs system weakly regulated, funding mainly based on international cooperation, and insufficient human resources, unsuitable and poorly distributed throughout the territory.

In Haiti, routine notification of death is almost nonexistent, in spite of efforts made since 1997 to set up a national mortality registry. Death certificates are filled out in only 1 in 20 deaths (5% coverage), and yet one in every 3 death certificates records an ill-defined cause of death. Given this situation, mortality risk profiles for the population are innaccurate and any information from this source must be taken with great caution. Yet, some patterns emerge indicating the poor state of the population health.

Core indicators of population health are, indeed, alarming: crude mortality rate, with 12 deaths per 1,000 population; under 5 mortality rate, with 86 deaths per 1,000 live births; infant mortality rate, with 57 deaths per 1,000 live birth — that is, 1 in every 12 children dies before her/his first birthday —; and maternal mortality rate, with 630 deaths per 100,000 live births; are by far the highest in the Region of the Americas. Conversely, life expectancy at birth, estimated at 61.5 years (59.7 in males and 63.2 in females) is the shortest in the Americas. Birth rate remains high, at 25 per 1,000 in urban areas and 30 per 1,000 in rural areas. Average number of children per woman is 3 in urban areas and 5 in rural areas.

Premature mortality is high: more than 50% of registered deaths occurs in Haitians younger than 50 years of age. Deaths due to preventable infectious diseases (32%) as well as cardiovascular diseases (17%) are most frequent. Predictably, acute respiratory infections and acute diarrheal diseases are leading causes of death in children under 5 years old. HIV/AIDS, tuberculosis, malaria, and malnutrition are among the five leading causes of death in children 5 to 19 years old. HIV/AIDS, tuberculosis, and accidents are among the five leading causes of death in adults 20 to 59 years old. In older adults (65 years of age and over), cardiovascular diseases, stroke, neoplasms, and diabetes mellitus are among the five leading causes of death.

Several diseases and risk factors are prevalent among the Haitian population. Tuberculosis has the highest incidence in the Americas (more than 12,500 new cases per year) and it is reportedly the seventh leading cause of death in the country. TB/HIV coinfection rate is close to 30%. HIV prevalence in general population is 2.2% (220,000 people living with HIV), with a male:female ratio of 1:1.9. In 2006, about 1 in 5 HIV-positive persons in need of antiretroviral therapy actually received it (9,000/44,000). Haiti still has one of the highest number of fatal human cases of rabies in the Americas, and the risk of transmission in animals is high. Malaria, dengue, lymphatic filariasis and other vector-borne diseases, other zoonosis, as well as respiratory and intestinal infections, anemia, diabetes, and hypertension are main contributors to the burden of morbidity, as well as accidents and assaults, particularly violence against women. Deaths due to assault are 5 times as frequent in women than in men.

Almost 50% of the population lacks access to basic health care and basic drugs, with the majority of the population seeking care from traditional healers. Hospital and clinical facilities in Haiti have long been compromised by infrastructural deficiencies, electrical blackouts, water problems and general impoverishment. According to a 2004 analysis for the health sector reform, the health infrastructure is comprised by 59 hospitals, 82 health centers and 487 dispensaries. The Ministry of Public Health and Population relies on the primary health care strategy to attend to the health needs of the population. Care is delivered through a basic package of services, encompassing 10 national bureaux and 4 coordinating units, addressing infectious and communicable diseases, nutrition, hospital safety, and the expanded program of immunization. Provision of essential care is very limited in terms of coverage and quality. Grave concern arises from the extremely low coverage rates of immunization for measles (54%) diphtheria, pertussis and tetanus (68%), and polio (66%) in children under 1 year. Neonatal tetanus remains a major public health problem; in 2005, for instance, 117 cases of tetanus were reported, of which 71 were neonatal.