ABSTRACT

The neonatal, infant, child, and maternal mortality rates in Haiti are the highest in the Western Hemisphere, with rates similar to those found in Afghanistan and several African countries. We identify several factors that have perpetuated this health care crisis and summarize the literature highlighting the most cost-effective, evidence-based interventions proved to decrease these mortality rates in low- and middle-income countries.

To create a major change in Haiti’s health care infrastructure, we are implementing two strategies that are unique for low-income countries: development of a countrywide network of geographical “community care grids” to facilitate implementation of frontline interventions, and the construction of a centrally located referral and teaching hospital to provide specialty care for communities throughout the country. This hospital strategy will leverage the proximity of Haiti by mobilizing large numbers of North American medical volunteers to provide one-on-one mentoring for the Haitian medical staff. The first phase of this strategy will address the child and maternal health crisis.

We have begun implementation of these evidence-based strategies that we believe will fast-track improvement in the infant, child, and maternal mortality rates throughout the country. We anticipate that, as we partner with private and public groups already working in Haiti, in a relatively short time Haiti’s health care system will be among the leaders in that region.

INTRODUCTION: THE HAITI CRISIS
Child and Maternal Mortality Rates

The World Health Organization (WHO), US Agency for International Development, United Nations International Children’s Emergency Fund (UNICEF), and other international agencies have published several years of annual child, neonatal, and maternal (CNM) mortality rates for countries around the world. Although the rates and annual trends are important in understanding the extent of a country’s problems, a comparison of the results with regional countries adds valuable information to the understanding of the magnitude of a crisis. This is especially true when one compares Haiti’s mortality rates with those of other countries in the Caribbean.

According to UNICEF, Haiti has the highest mortality rates for infants, children under age 5 years, and pregnant women in the Western Hemisphere.1 There were an estimated 265,000 live births in Haiti in 2013,2 underscoring the magnitude of the number of deaths in each CNM category per year.

Neonatal Mortality Rate

In Haiti, of all the deaths of children under 5 years of age, 34% died in the neonatal period, with approximately 90% of these deaths occurring in the first week of life.3 In 2013, there were an estimated 6800 neonatal deaths in Haiti based on a neonatal mortality rate of 25 per 1000 live births, which was unchanged since 2010.1,4 This rate is much higher than the annual mortality rate in other Caribbean countries, including the Dominican Republic’s rate of 16 per 1000.5

Infant Mortality Rate

In Haiti, the infant mortality rate was 55 per 1000 live births in 2013,1,6 which means that 75% of childhood deaths occur before a child’s first birthday. This rate was at least twice any other Caribbean country and much higher than the neighboring country, the Dominican Republic (21/1000). Haiti’s infant mortality rate is most certainly the highest in the Western Hemisphere,2 and is more in line with the 2013 reported rates of Liberia (54/1000) and Ghana (53/1000).6

Child Mortality Rate

In 2013 there were more than 20,000 deaths in children under age 5 years.2 The child mortality rate in Haiti in 2013 was 73 per 1000 compared with other Caribbean countries, which had an average rate of 15 per 1000.8 Of the 75% of childhood deaths that occur before the first year of age, 34% occur during the neonatal period; the remaining 25% of childhood deaths occur between the first and fifth birthdays.3

Maternal Mortality Ratio

In 2013, the maternal mortality ratio in Haiti was 380 per 100,000 live births, with more than 1000 maternal deaths; this ratio was, unfortunately, not greatly different from the 2010 mortality ratio of 350.6 The ratio of 380 was much higher than the average of regional Caribbean countries (68) and similar to the rates of Rwanda (320), Sudan (360), and Afghanistan (400).6

Causes of Child, Neonatal, and Maternal Deaths

To determine the most appropriate interventions to confront this crisis, it is important to first understand the various contributing factors to these unacceptably high mortality rates in Haiti. A literature review of the various causes of the CNM mortality...