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## Child health in Central America and the Caribbean

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Central America consists of seven mainland countries: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama. The Caribbean Sea contains over a thousand islands. Many of the islands are small in both size and population. The countries of Central America and the Caribbean with a population of over a million are listed in [table 1](#).

Child mortality has fallen significantly in all the countries of Central America and the Caribbean. There are however major differences in the under 5 mortality rates both between countries and also between different socioeconomic groups within the countries. There is a more than 10-fold difference between the under 5 mortality rate between Cuba (six deaths per 1000 live births) and Haiti (70 deaths per 1000 live births).<sup>1</sup> Haiti, Guatemala and Honduras have some of the greatest health inequalities in Central America.<sup>2</sup> More than 50% of the urban population of Guatemala live in slums.<sup>3</sup> Overall, 16% of children under the age of 5 years in the poorest 20% of the population of Honduras are underweight.<sup>3</sup> In contrast, only 2% of the wealthiest 20% of children under the age of 5 years in Honduras are underweight.<sup>3</sup> In many countries, access to healthcare is limited mainly due to the financial costs. Universal access to free healthcare is essential to reduce mortality rates in all sections of society. The introduction in El Salvador in 2009 of a universal social protection system has resulted in a significant fall in under 5 mortality rates.<sup>3</sup>

It is worth comparing the healthcare systems in the two countries which have the lowest and highest child mortality rates in the region, that is, Cuba and Haiti, respectively. Cuba has universal access to free healthcare. It has an excellent primary healthcare system with a strong focus on the prevention of disease. The primary healthcare team, which consists of a doctor and nurse, are responsible for approximately 300 families. Each member of a family is seen routinely at least once a year and young children are frequently seen both at home and in the clinic. Children with a chronic illness (including disability) are seen at least three times a year (including one visit at home). It has an extensive immunisation programme and ensures that all families, even those living in remote rural areas, receive healthcare and appropriate treatment.

In contrast, Haiti has widespread poverty and huge inequalities which have a significantly adverse effect on health.<sup>3</sup> Even before the earthquake in 2010, only 63% of the country's population had regular access to drinking water. The rate of chronic malnutrition ranges from 18% to 32%. Approximately one in three children under the age of five has vitamin A deficiency<sup>3</sup> and almost two-thirds of these children are anaemic.<sup>3</sup> More than 50% of the children in Haiti go to private

(fee paying) schools. Less than 50% of children go to secondary school. For children from the lowest income quintile, less than one in four go to secondary school.<sup>3</sup> Access to healthcare is limited both geographically and financially. In all, 80% of the population rely on traditional medicines due to its low cost and accessibility.<sup>3</sup> Immunisation rates actually fell between 2006 and 2010. A free obstetric care project (Soins Obstétricaux Gratuits) started in July 2008. Free healthcare to pregnant women was provided at 43 participating institutions. This has subsequently been increased to 63 institutions. A similar project aimed at providing free childcare to children under the age of 5 was initiated in 2010 involving 27 health facilities. With the exception of this one project, obstetric care is only available at a significant cost.

The importance of the prevention of illness is illustrated by the response of Cuba and Haiti to hurricanes. In 2008, two category 4 hurricanes caused extensive damage to Cuba. They caused widespread disruption to buildings, livestock and crops.<sup>4</sup> There were however only seven deaths in Cuba because of the evacuation of people from hurricane areas. In contrast, there were over 100 deaths in Haiti despite the fact that the hurricanes were at a far lower intensity (categories 1 and 2) when they passed through Haiti. This shows that natural disasters can be anticipated and mortality and morbidity significantly reduced.<sup>4</sup>

Alongside the practical demonstration of how universal health and education result in low mortality rates, Cuba is also providing a leading role in relation to provision of healthcare in remote regions in several Central America countries. Over 3000 Cuban health workers have worked in Haiti in 1998. The initial medical brigade arrived in the aftermath of Hurricane Georges in September 1998. Cuba had numerous health professionals in Haiti at the time of the devastating earthquake in 2010. Countries such as Norway decided it was better to fund Cuban health professionals who were already in Haiti rather than sending their own health professionals following the earthquake. As well as providing emergency treatment, the Cuban support has provided 15 community hospitals with plans for another 15 community hospitals in the future.<sup>5</sup> It is only through the provision of healthcare facilities and access to healthcare that improvements will be made in the shockingly low percentage of children immunised against measles (60%) in Haiti.<sup>3</sup>

The situation of women within society also plays a crucial role in child mortality. Financial insecurity, domestic violence, and access to healthcare including contraception and abortion are major issues in many Central American countries. Both Cuba and Costa Rica have shown that universal provision of

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**Table 1** Under 5 mortality rates (U5MR) in Central America and the Caribbean

Countries	Population (million)	U5MR	
		1990	2011
Costa Rica	4.7	17	10
Cuba	11.2	13	6
Dominican Republic	10.1	58	25
El Salvador	6.2	60	15
Guatemala	14.7	78	30
Haiti	10.1	143	70
Honduras	7.7	55	21
Jamaica	2.7	35	18
Nicaragua	5.9	66	26
Panama	3.6	33	20
Trinidad and Tobago	1.3	37	28

access to healthcare and education are essential to achieve low mortality rates. Both Cuba and Costa Rica have literacy rates of >95%, whereas the literacy rate in Haiti is only 49%.<sup>1</sup> Domestic violence is a major problem in Haiti. One in five Haitian women reported being abused physically or sexually by their partners.<sup>3</sup> Among female adolescents, one in four had experienced physical or sexual violence by their partner.<sup>3</sup> The rights of women and children are interdependent and universal access to both healthcare and education are prerequisites for ensuring further falls in child mortality and morbidity.

The problems in Central American and the Caribbean are similar to those in other regions in the world. These are the socioeconomic inequalities and social determinants within countries which result in major inequalities in health. Guatemala,

Panama and Trinidad and Tobago have all introduced legislation prohibiting smoking in public places and work places. Costa Rica has restricted the marketing of alcohol. Such measures, however, need to be aligned with changes in social and economic policies that help the most disadvantaged. The beneficial effects of this on health are illustrated by the dramatic fall in under 5 mortality rates in El Salvador following the introduction of a universal social protection system. There have been major changes in socioeconomic policy in many countries in Latin America which have resulted in increased access to health and education for the most disadvantaged in society. It remains to be seen whether similar changes occur in Central America and the Caribbean which should result in falls in both the rates of poverty and the child mortality.

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