



December 2017

Guyana has one of the highest mother and child death rates in Latin America and the Caribbean, mostly from preventable causes

Dhanraj Singh and Richa Sekhani[†]

Key Message

- Guyana continues to experience one of the highest maternal (mothers) and infant death rates in Latin America and the Caribbean.¹ The maternal death rate was higher in 2015 than it was in 2000, and the child death rate has fallen only marginally over the same period.
- Insufficient public investment to increase access to and improve the quality of care is at the center of the problem.
- Poor quality health services and respiratory disorder are the leading causes of maternal and child deaths, respectively.
- Increasing public investment to improve access to and the quality of services and ensuring that funds allocated to the health sector are used for their intended purposes and in the most efficient manner are necessary to reduce the high rates of maternal and infant deaths.
- Reducing the level of poverty, investing in clean and safe communities and investing in improving educational outcomes for women are fundamental to improving families' health and well-being and putting them on a path to long-term prosperity.
- Complementary policy changes are needed to address fundamental problems with the country's health care system, which include high out-of-pocket costs and the lack of sustainable sources of health financing.

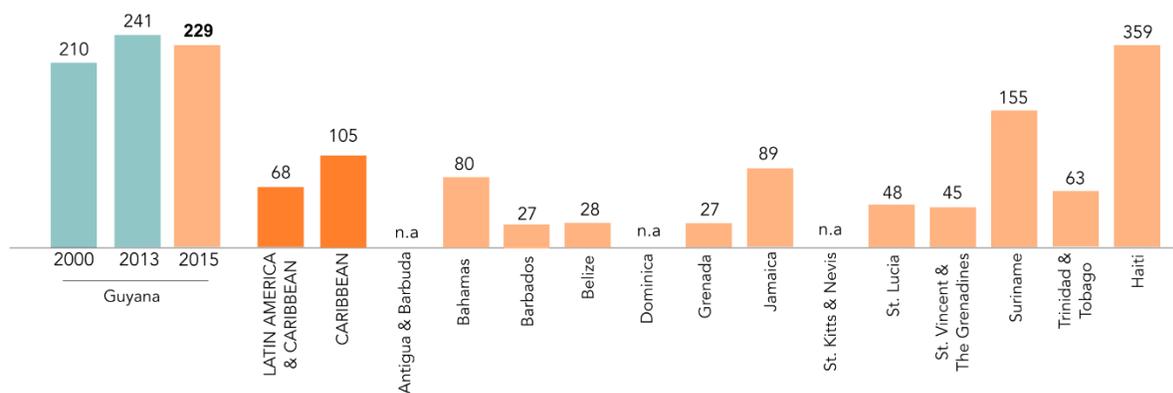
[†] Dhanraj Singh is an Economist and the Executive Director of the [Guyana Budget & Policy Institute](http://www.gbpi.institute). Richa Sekhani is a Research Fellow with the [Centre for New Economic Studies](http://www.cneconomicstudies.org).

The Maternal Death Rate in Guyana was 229 in 2015, the Highest in the Caribbean, Except in Haiti.

In 2013, the Ministry of Health finalized a new strategy called Health Vision 2020, which sets out the priorities and goals for the health sector until 2020. According to the strategy, the reduction of maternal and child deaths is a top priority. In 2015 (the most recent estimate) there were 229 maternal deaths per 100,000 live births, down from 241 deaths in 2013.² Despite this decline, the maternal death rate in 2015 was 9 percent higher than it was in 2000. As of 2015, Guyana had made “No Progress” towards achieving the Millennium Development Goal 5A, concluded the World Health Organization.³

Maternal death, also called maternal mortality, is the death of a mother while pregnant or within 42 days of the termination of pregnancy, according to the [World Health Organization](#) (WHO).⁴ The maternal death rate does not include accidental deaths.

The Maternal Death Rate in Guyana was 229 in 2015,
the Highest in the Caribbean, Except in Haiti



Data Sources: United Nations Inter-Agency Group for Child Mortality Estimation (IGME), 2015. UNICEF (2017): MMR_Matdeaths_LTR Trend Estimates 1990-2015

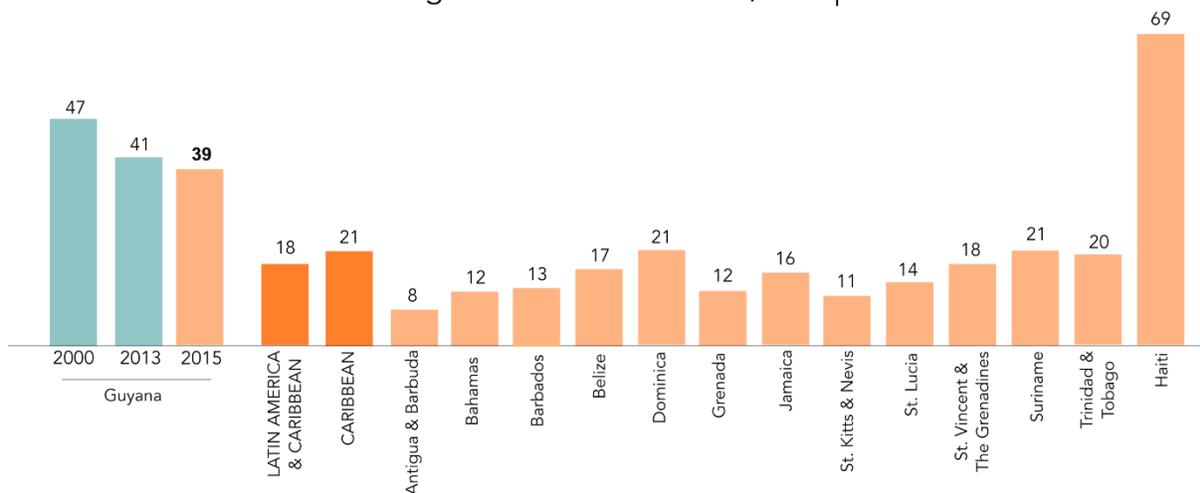
The maternal death rate in Guyana for 2015 was almost four times higher than the average for Latin America and the Caribbean. Within the Caribbean, no other country had a maternal death rate higher than Guyana, except Haiti. For added perspective, Grenada which has an economy that is about a third of Guyana’s economy had a maternal death rate that was a fifth of Guyana.

The Child Death Rate in Guyana was 39 in 2015, the Highest in the Caribbean, Except in Haiti.

The most commonly used measurement to track early childhood deaths is the under-five death rate, also called the under-five mortality rate. This is the number of children who die before reaching age five for every 1,000 live births. In 2015, 39 children under age five died for every 1,000 live births, down from 47 deaths in 2000.⁵ Of note, about 59 percent of all deaths under age 5 happened between birth and one month, during the neonatal period. This is the period when newborns undergo an extensive and ongoing transition to the external environment.

The under-five death rate in Guyana for 2015 was almost double the average for Latin America and the Caribbean. Within the Caribbean, no other country had a death rate that was higher than, except Haiti. For added perspective, Dominica which has an economy that is just 16 percent of Guyana’s economy, had an under-five death rate that was half of Guyana.

The Child Death Rate in Guyana was 39 in 2015, the Highest in the Caribbean, Except in Haiti



Data Sources: United Nations Inter-Agency Group for Child Mortality Estimation (IGME), 2015. UNICEF (2017) Levels and Trends in Mortality. Report 2017



Another measurement of early childhood deaths is the ‘infant mortality rate’ which is the number of children who die after birth but before reaching 12 months of age.⁶ In 2015 (the most recent estimate), 32 out of every 1,000 children died before their first birthday, down

from 37 deaths in 2000, according to a joint [report](#) by the Bureau of Statistics, Ministry of Public Health and UNICEF Guyana.⁷

What Causes Maternal and Child Deaths?

There are multiple immediate, underlying, and structural causes of maternal and child deaths, according to [UNICEF](#).⁸ See table below. For example, immediate causes of maternal and child deaths include disease and infection, poor nutritional status and congenital factors, or problems relating to birth. Structural causes of child and maternal deaths include poverty, geography, and social norms. *So, which among these causes are driving maternal and child deaths in Guyana?*

Causes of Maternal and Child Deaths

Immediate	Underlying	Structural
<input checked="" type="checkbox"/> Congenital Factors	<input checked="" type="checkbox"/> Inadequate Health Care	<input checked="" type="checkbox"/> Poverty
<input checked="" type="checkbox"/> Obstetric Risk	<input checked="" type="checkbox"/> Lack of Immunization	<input checked="" type="checkbox"/> Social Norms
<input checked="" type="checkbox"/> Diseases & Infection	<input checked="" type="checkbox"/> Unhealthy Household Environment	<input checked="" type="checkbox"/> Regional Disparities
<input checked="" type="checkbox"/> Nutritional Status	<input checked="" type="checkbox"/> Household Food Insecurity	<input checked="" type="checkbox"/> Gender Norms

Insufficient public investment in healthcare and the resulting poor quality of services is at the center of maternal and child deaths.

In 2014 (the latest year for which data is available) total health expenditure was estimated at 5.2 percent of Guyana's economy, according to the WHO.⁹ However, total government expenditure on health represents less than 10 percent of total health expenditure. In comparison, private expenditure on health, which includes out-of-pocket expenditure, represent almost 41 percent of total health expenditure.

Insufficient public investment in the health sector leads to poor and inadequate provision of health care services and a high level of household out-of-pocket expenditures which in

turn leads to high death rates. In Guyana, the poor quality of prenatal, delivery and postnatal care has caused a significant number of neonatal deaths, according to a UNICEF report on situation analysis of children and women.¹⁰ High out-of-pocket expenditures increase economic and financial hardship on families, especially those living in poverty, by limiting access to needed health care services. Often, these families must choose between paying for needed care and paying for food and rent.

Poor quality health services relating to childbirth (before, during and after) is the leading cause of maternal deaths.

The immediate causes of maternal deaths are further divided into two groups according to UNICEF.¹¹ These are:

- Direct obstetric – deaths caused by a difficulty or abnormality that arises during the process of labor or delivery, after the delivery or from poor interventions, omissions, incorrect treatment, etc., also called obstetric complication. The quality of care and treatment relating to childbirth largely determines the prevalence of these abnormalities. In Guyana, about 73 percent of all maternal deaths in 2012 (the latest year for which data is available) were direct obstetric deaths.¹²
- Indirect obstetric – deaths caused by complications during pregnancy such as malaria, anaemia, cardiovascular diseases, and HIV and AIDS virus. Indirect obstetric deaths represented 27 percent of all maternal deaths in Guyana in 2012.

Among the socioeconomic and demographic causes of maternal deaths, the level of poverty, women's educational attainment, access to potable water and sanitation, access to quality prenatal, delivery and postnatal care, nutrition, and malaria are among the top causes. For example, women living in interior communities – mostly Amerindians – are three times more likely to not have access to prenatal care and thus more likely to die from pregnancy than those living in coastal communities.¹³ And even when some basic services are available at public facilities, the lack of good quality roads in these communities makes it difficult to near impossible for people to access these facilities or for mobile health professionals to access the communities. In some interior communities, the lack of quality roads is due to the country's mountainous and riverine geography.

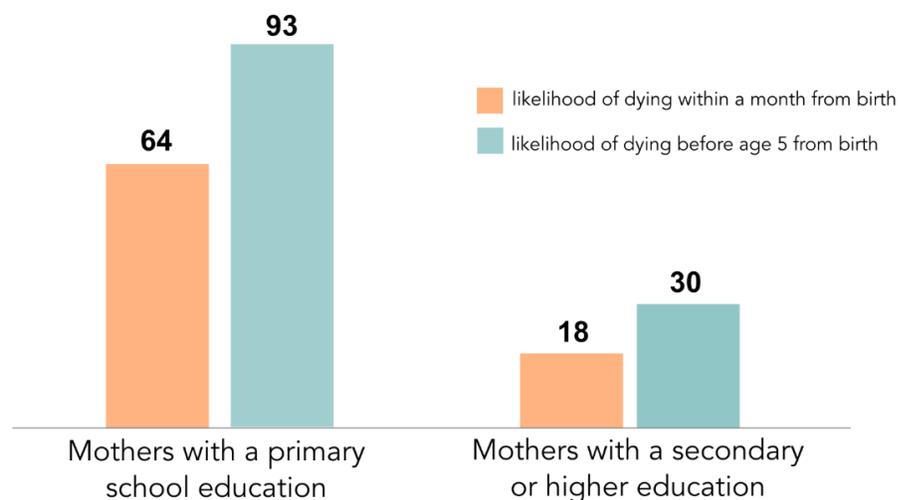
Respiratory Disorder is the Leading Cause of Child Death in Guyana

Respiratory disorders – problems with breathing – account for 31 percent of all child deaths between birth and twelve months in Guyana, according to a recent [report](#) on women and children in Guyana by UNICEF.¹⁴ Other causes of child death include congenital malformation, bacterial sepsis of newborn, obstetric complication and birth trauma, slow fetal growth and nutritional deficiencies, according to the [report](#). Accordingly, the same health care services and personal characteristics that are related to maternal deaths also relate to child deaths.

The socioeconomic and geographic factors that cause maternal deaths also determine whether a child would live beyond age 5, according to the joint [report](#) by the Bureau of Statistics, Ministry of Public Health and UNICEF Guyana.¹⁵ The educational attainment of mothers and the community in which the child is born are significant determinants of child death. For example, child death among mothers with only a primary or lower educational attainment are more than three times higher than among mothers with a secondary or higher educational attainment, according to the [report](#). This relationship remains strong from the early stages of pregnancy up to age 5.

Children born to mothers with only a primary education are more than 3 times likely to die before reaching age 5.

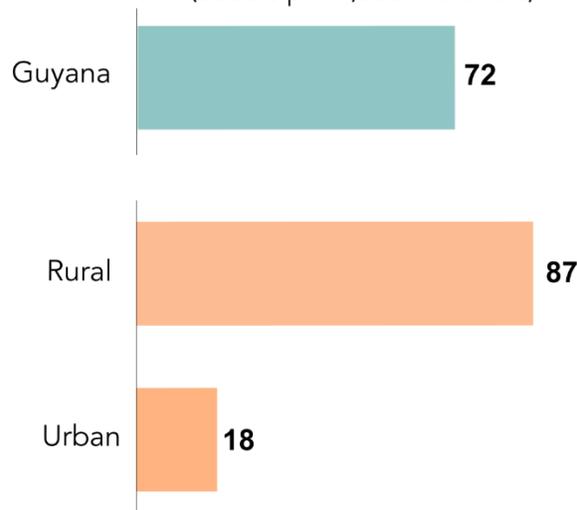
(deaths per 1,000 live births)



Data Source: Bureau of Statistics, Ministry of Health and UNICEF. 2015.
Guyana Multiple Indicator Cluster Survey 2014, Key Findings. Georgetown, Guyana.

Similarly, children born in rural communities are almost five times more likely to die before age 5 than children born in urban communities. In rural communities, 87 of every 1,000 children die before reaching age 5 compared to 18 in urban communities.¹⁶ One likely explanation for this is the level of poverty in rural communities. Almost three-quarters of people in rural communities live in poverty, a rate that is 200 percent higher than the national average.¹⁷

Child Deaths in Rural Areas is Almost Five Times Higher Than in Urban Areas
(deaths per 1,000 live births)



Data Source: Bureau of Statistics, Ministry of Health and UNICEF. 2015.
Guyana Multiple Indicator Cluster Survey 2014, Key Findings. Georgetown, Guyana.

How Can We Reduce Maternal and Child Deaths?

Reducing maternal and child deaths requires a deliberate and well-coordinated policy response that: (1) increases availability of and access to quality care in the short-term, and (2) help families climb out of poverty and promote economic prosperity and safe and clean communities in the long-term. An evidence-based approach to the formulation of such policies is necessary to ensure the most efficient use of public resources and prioritize those services that would deliver the most benefits. In order to improve health outcomes and simultaneously put families on a path to economic success, the government should:

1. **Sufficiently increase public investment to improve the quality of and access to needed care.**¹⁸ Congenital factors aside, many maternal and child deaths could be avoided simply by improving the quality of services provided to pregnant women. For example, maternal deaths from neonatal sepsis, birth asphyxia and prematurity could be reduced if quality antenatal and delivery care are provided and are affordable. In rural communities, in both coastal and interior areas, access to basic maternal healthcare services remains out of reach for far too many women.
2. **Develop and adequately fund education programs targeting the present and future health of mothers.** Programs that provide the most vulnerable mothers with the support they need on how to care for themselves and their babies are likely to have a significant impact on the present and future health of mothers. Research shows that education accounts for about one-half of the overall education-death relationships.¹⁹ Programs aimed at reducing maternal deaths would also reduce child deaths since healthier mothers are more likely to have healthier births. The importance of the present and future health of mothers is identified in the [Guyana Millennium Development Goal Acceleration Framework](#) (MAF)²⁰ as a crucial area to be addressed; however, there is no known program/s currently dedicated to improving the present and future health of mothers.
3. **Adopt and enforce stringent quality control measures to ensure funding for the health sector is used in the most efficient and cost-effective way to deliver maximum quality care.** Currently, there is no evaluation done to estimate the share of the population with access to services, ensure funds are used for critical services, identify ways to reduce out-of-pocket expenditures, or simply to improve the quality and delivery of services.
4. **Adequately invest in public health programs for clean and safe communities.** Expanding and improving the quality of public health services, such as improving the access to potable water and sanitation, widespread immunization, malaria and acute respiratory infections preventions, and diarrhea prevention are smart policies to improve the present and future health of mothers and children. These policies are also likely to have a significant impact on the quality of life of citizens, lifetime productivity, and the economy.
5. **Adopt policies to further develop the national health system to ensure it can adequately provide for the healthcare needs of the nation.** Policies to identify adequate and sustainable sources of financing to reduce the high out-of-pocket expenditures, expand access to needed services, increase coordination of service

provision and encourage greater pooling of resources to reduce financial risk and economic hardship are critical to improving the health of mothers and children.

In 2015, the government secured US\$8 million from the Inter-American Development Bank (IDB) to help reduce maternal, perinatal and neonatal deaths in Guyana. The program seeks to improve the quality of care at 140 health facilities and in 88 communities, potentially benefitting at least 140,000 women and 9,000 newborns per year.²¹ While these funds are likely to help resolve some issues and deliver some benefits (assuming the funds are used as intended), it is not a substitute for ensuring sustainable sources of health financing, better coordination of service delivery and greater pooling of resources to permanently increase the level and quality of care needed.

Conclusion

Maternal and infant death rates in Guyana are among the highest in the Caribbean and Latin America, despite some progress over the last two decades. At the core of these problems is insufficient public investment in healthcare, leading to insufficient preventative services and poor-quality health care. Multiple socioeconomic factors, including the high level of poverty, low educational attainment among women and the high cost of care, limit overall access to needed services. Further, the lack of sustainable sources of health financing and poor coordination of services contributes to the poor quantity and quality of services provided.

Fortunately, there are simple steps the government can take to resolve these challenges and ensure the provision of sufficient, quality and affordable services to reduce maternal and child deaths. For example, sufficiently increasing public investment in healthcare, creating programs targeting the most vulnerable families and making more strategic budgetary allocations in areas such as clean and safe communities, poverty reduction and education could significantly improve the present and future health of mothers and children and promote widespread economic prosperity.

Notes

¹ Inter-American Development Bank , [Guyana to reduce maternal and infant mortality rates with IDB support](#), October 27, 2016.

² WHO, UNICEF, UNFPA, World Bank Group, and the United Nations Population Division. [Trends in Maternal Mortality: 1990 – 2015](#).

³ Supra, note 2.

⁴ World Health Organization. Health statistics and information systems. [Maternal mortality ratio \(per 100,000 live births\)](#).

⁵ Bureau of Statistics, Ministry of Health and UNICEF. 2015. [Guyana Multiple Indicator Cluster Survey 2014, Key Findings](#). Georgetown, Guyana.

⁶ [Center of Disease Control and Prevention. Reproductive Health. Infant Mortality.](#)

⁷ Supra, note 5.

⁸ UNICEF. [The State of the World's Children 2009: Maternal and Newborn Health](#). New York. 2009

⁹ World Health Organization. World Health Statistics 2012.

¹⁰ UNICEF. [Guyana Situation Analysis of Women and Children. 2016](#).

¹¹ UNICEF. [The State of the World's Children 2009: Maternal and Newborn Health](#). New York. 2009

¹² Government of Guyana. [Guyana MDG Acceleration Framework: Improved Maternal Health](#). June 2014.

¹³ UNICEF. [Guyana Situation Analysis of Women and Children. 2016](#)

¹⁴ Supra, note 13.

¹⁵ Supra, note 5.

¹⁶ Supra, note 5.

¹⁷ Guyana Budget & Policy Institute (2017). [Poverty Facts: Almost 4 in 10 Guyanese Cannot Afford Basic Costs of Living](#). Policy Report.

¹⁸ Research shows that increasing education and health spending have a positive and significant impact on education and health capital, and thus support higher growth. See Baldacci, E., Clements, B., Gupta S., et al (2008): [Social Spending, Human Capital and Growth in Developing Countries](#). World Development. Volume 36, Issue 8, Pages 1317-1341.

¹⁹ Cleland, J. and Ginneken, J. (1988): [Maternal education and child survival in developing countries: the search for pathways of influence](#). Social Science & Medicine. Volume 27, Issue 8, Pages 1357-1368.

²⁰ Government of Guyana. [Guyana MDG Acceleration Framework: Improved Maternal Health](#). June 2014.

²¹ Supra, note 1.