

# Health Equity Report 2016

Analysis of reproductive, maternal, newborn, child and adolescent health inequities in Latin America and the Caribbean to inform policymaking

SUMMARY REPORT



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Health Equity Report 2016: Analysis of reproductive, maternal, newborn, child and adolescent health inequities in Latin America and the Caribbean to inform policymaking. Summary Report

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# Introduction

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# Introduction

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Over the last decade, Latin America and the Caribbean has experienced rising incomes and countries in the region have substantially improved health-care coverage for people who live in poverty as well as health outcomes for most of their populations.<sup>1</sup> Nineteen of thirty-three Latin American and Caribbean countries are now classified by the World Bank as upper-middle income countries.<sup>2</sup> Yet progress has been uneven, and regional and national averages for income and social indicators reveal wide inequalities between and within countries. This is extremely apparent in the areas of reproductive, maternal, neonatal, child and adolescent health.

For many countries in Latin America and the Caribbean, efforts towards achieving universal health coverage and access to health care began as early as the 1990s. Over the past two decades, a few countries have implemented health system reforms that have fostered inclusion, citizen participation and equitable access to health care. Despite this progress, however, most countries in the region still experience major inequities in health status and coverage of health interventions, with major differences in health outcomes occurring based on people's wealth, education, geographic location, gender, ethnicity and/or age.

We have the knowledge base to reduce and even eliminate these inequities. Pro-poor health sector interventions have been shown to improve health equity and overall progress by narrowing existing gaps in access to health services and health status. But strengthening health systems and improving coverage are not enough to improve the health and social well-being of populations. As stated in the 2030 Agenda for Sustainable Development, "sustainable development recognizes that eradicating poverty in all its forms and dimensions, combating inequality within and among countries, preserving the planet, creating sustained, inclusive and sustainable economic growth and fostering social inclusion are linked to each other and are interdependent".<sup>3</sup>

*A Promise Renewed for the Americas* (APR-LAC) is a movement that seeks to reduce the profound inequities in reproductive, maternal, neonatal, child and adolescent health that persist in Latin America and the Caribbean. APR-LAC collaborates with key regional stakeholders, including

Governments, international development agencies, civil society representatives, academic institutions, the private sector, professional institutions and non-governmental organizations to catalyse and support country-led efforts to decrease gaps in access to quality health care. As a regional movement, APR-LAC works in coordination with the global A Promise Renewed initiative. APR-LAC is convened by the Inter-American Development Bank (IDB), the Pan American Health Organization/World Health Organization (PAHO/WHO), the United Nations Children's Fund (UNICEF), the United States Agency for International Development (USAID) and the World Bank.

As countries consider how to implement the 2030 Agenda for Sustainable Development to achieve the Sustainable Development Goals, it is vital that national priorities and development goals for the next 15 years address the current health inequities in Latin America and the Caribbean, reflect the needs of the most vulnerable populations and be based on current evidence. As a contribution to this effort, UNICEF partnered with the Tulane University Collaborative Group for Health Equity in Latin America to review the available evidence on health inequity in the region. The resulting report, *Health Equity Report 2016: Analysis of Reproductive, Maternal, Newborn, Child and Adolescent Health Inequities in Latin America and the Caribbean to Inform Policymaking*,<sup>4</sup> draws on over 700 sources, including a review of published research findings and household surveys (Demographic and Health Surveys, Multiple Indicator Cluster Surveys, Reproductive Health Surveys and other national surveys) undertaken from 2008 to 2014, to generate evidence of current health inequities and underscore the need for better data, particularly within countries at the subnational level.

This summary report draws on the findings of the *Health Equity Report 2016*<sup>5</sup> to illustrate the health inequities affecting children, women and adolescents in Latin America and the Caribbean, to provide government policymakers, non-governmental organizations, civil society partners, communities and all others concerned with the rights of children, women and adolescents relevant evidence they need to recognize and reverse those inequities in health.

# What is health equity?

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The concept of health equity draws from the premise that “ideally everyone should have a fair opportunity to attain their full health potential and, more pragmatically, that no one should be disadvantaged from achieving this potential, if it can be avoided.”<sup>6</sup> Since these inequities are avoidable, reducing

them becomes an issue of social justice.<sup>7</sup> Health inequity refers to differences in health that are “systematic, avoidable, unfair and unjust”<sup>8</sup> and obstruct individuals and communities from achieving their best health potential.

## Health inequity in Latin America and the Caribbean: an intergenerational cycle

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Latin America and the Caribbean is a region marked by vast social inequalities between rich and poor, high and low levels of education, urban and rural populations and dominant and minority ethnicities. People who live in poverty, ethnic minorities and other populations who have been kept at the margins of economic and human development often lack access to health services and, as a consequence, cannot attain the same level of health outcomes as those who have benefited from development.

Although many countries throughout Latin America and the Caribbean have made efforts to expand health services for poor and vulnerable populations, health inequity remains widespread in the region, especially for women, infants and children. An extensive analysis of national household surveys, global epidemiological estimates and a review of studies previously conducted throughout the region has found that the inequities experienced by certain demographic groups are not isolated to a single health issue, but instead affect women and children throughout their lives.

The health of pregnant women and women of childbearing age often directly affects the health of their children and thus creates a cycle in which health inequities remain concentrated in certain populations for generations.

Throughout the region, women and children from low-income populations are more likely to face lifelong health inequities. Following delivery, newborns from poorer families are less likely than those from wealthy families to be registered at birth. Without birth registration, infants are denied their fundamental human right to exist legally and often face difficulty in accessing health and education systems later in life. After infancy, children living in low-income settings are at increased risk of infectious diseases including respiratory conditions such as pneumonia and asthma, as well as

diarrhoea and water-borne diseases due to lack of adequate water, sanitation and hygiene, not to mention the increasing challenges posed by vector-borne diseases such as dengue, chikungunya and zika. These children are less likely to be taken for care when symptoms arise. Wealth position also impacts malnutrition, for example in Guatemala, where children from the poorest demographic groups are five times more likely to be stunted than children of wealthy families.

After reaching adolescence, girls from poorer demographics are more likely to attend poor-quality educational systems, to have to work to provide support for their families and to face barriers in accessing sexual and reproductive health services. Without a bright outlook for their futures, these vulnerable girls may become pregnant at earlier ages. The unmet need for family planning services is also significantly higher for poor adult women. During pregnancy, low-income women often receive less adequate antenatal care than do wealthier women and also have a lower prevalence of delivering with a skilled birth attendant. Both of these factors, in addition to a woman’s education level, affect the chance of survival for both women and children.

Women from ethnic minorities frequently experience social and economic exclusion—an unequal situation that produces health inequities at numerous moments throughout their lives, particularly during pregnancy and childbirth. Indigenous and Afro-descendant populations in particular experience a higher prevalence of adolescent pregnancy than national averages. Not only are adolescent pregnancies associated with increased risk of perinatal complications, but daughters of adolescent mothers may be more likely to become adolescent mothers themselves, thus creating an intergenerational cycle that hinders their developing their own human capabilities.

# The relevance of health equity for the achievement of universal health care, the human right to health and the Sustainable Development Goals

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While several countries in Latin America and the Caribbean have enacted measures to achieve universal health care, national and regional reports indicate that health equity remains a goal unrealized and an impediment to reaching universal health care, a movement launched by the World Health Assembly in 2005 “to contribute to meeting the needs of the population for health care and improving its quality, to reducing poverty, to attaining internationally agreed development goals, including those contained in the United Nations Millennium Declaration and to achieving health for all”<sup>9</sup> As the Sustainable Development Goals take over for the 2015-2030 period and Governments resolve to reduce inequality within and among countries (Goal 10), achieve gender equality (Goal 5), ensure healthy lives (Goal 3) and foster social inclusion (Goal 16), the time is ripe for a stronger focus on the differential distribution in access to health services and of health outcomes along social gradients—instead of focusing on achieving targets that are only representative of national averages—to narrow and eliminate existing health equity gaps. The health equity momentum has transpired to other global initiatives such as the Global Strategy for Women’s, Children’s and Adolescents’ Health, launched in September 2015 by WHO.<sup>10</sup> After all, excluded populations “have the greatest scope for gains in survival and development outcomes”.<sup>11</sup>

We have the knowledge base to achieve these goals. Pro-poor health sector interventions have been shown to improve health equity and overall progress by narrowing existing gaps in access to health services and health status. But strengthening health systems and improving coverage are not enough to improve population health and social well-being. As stated in the 2030 Agenda for Sustainable Development, “sustainable development recognizes that eradicating poverty in all its forms and dimensions, combatting inequality within and among countries, preserving the planet, creating sustained, inclusive and sustainable economic growth and fostering social inclusion are linked to each other and are interdependent”.<sup>12</sup>

To produce relevant health equity information for policymakers, data that can be disaggregated at the lowest administrative level possible has to be collected and analysed, preferably annually. National initiatives to measure and monitor health equity have been initiated in countries such as Brazil, Chile, Colombia, Mexico and Uruguay. But as the *Health Equity Report 2016* reflects, efforts are still needed to understand the magnitude of health inequity with improved data collection systems that inform policymaking.

## What we don’t know: where more research is needed

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Several common challenges arise in addressing reproductive, maternal, newborn, child and adolescent health inequities in Latin America and the Caribbean. One major challenge is the lack of systematic collection of data that are disaggregated by socioeconomic stratifiers to better monitor health equity trends, and the lack of research that would provide key information on how to better target population groups that have the worst health outcomes. While many of the topics covered in the *Health Equity Report 2016* have been the focus of large international studies, more information is needed about the status of the issues in Latin America and the Caribbean and how best to address them within the region. Those studies that do address important health issues in the region rarely take a health equity perspective.

Health inequity as it affects indigenous and other minority ethnic groups, including Afro-descendant populations, in particular requires further research. While evidence suggests that ethnic minorities may experience numerous inequities, these populations have been largely overlooked by national and international data collection mechanisms, quality-of-care studies and monitoring of their health trends. For example,

in the region, only Costa Rica and Guyana systematically collect, analyse and report data on the self-identified ethnicity of women and their children in nationally representative household surveys. Belize, Panama and Suriname also collect these data systematically, but only from the head of household. Some countries collect ethnicity information but do not publish it and other countries do not collect it at all. Information about their plights and progress are a prerequisite to actively engaging these communities in dialogues that will inform public policies and investments and to measuring their impact.

In order to accomplish the challenge of reducing health inequities for women and children in Latin America and the Caribbean, a consistent process of fundamental social and structural changes must –be developed. The evidence presented in the *Health Equity Report 2016* is only the beginning of this process of change; creating awareness of the health inequities affecting marginalized populations is necessary but insufficient by itself. Further action is needed to operationalize these results and translate them into better health outcomes for all.

Future steps should include at least three processes:

1. Advocacy. This report and other health equity information systems should be disseminated among key stakeholders such as Governments, donors, non-governmental organizations, research institutions, beneficiary populations and civil society organizations.
2. Measuring and monitoring. Measures of inequality need to be developed consistently and tracked across the region in order to monitor improvements and gains.
3. Establishment of multisectoral strategies. Key sectors such as health, environment, education, industry and energy are all interconnected and synergies among them have the potential to have a significant impact in reducing health inequity throughout Latin America and the Caribbean.

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Key findings on equity health

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# Key findings on equity health

## Equity in reproductive health

Fertility has decreased steadily since at least the 1970s in most countries in Latin America and the Caribbean, mostly due to increased access to modern contraception. While fertility and unwanted pregnancy generally have been declining throughout the region, vulnerable women face various barriers to accessing routine reproductive health care, resulting in an unmet need for contraception, unintended pregnancies and undiagnosed sexually transmitted infections (STIs) and cancers.

### Contraception use

Inequalities in wealth and education level, along with ethnicity, affect women's abilities to access modern contraceptive methods, emergency contraception and safe abortion. This in turn creates differential health outcomes among socioeconomic groups, with vulnerable women largely bearing the brunt of unwanted and mistimed pregnancies, as well as abortion-related complications and fatalities as a result of unsafe abortions.

In every country with available data, the prevalence of unmet need for contraception is higher among the women in poorest

households and among the least educated women, although current levels in some countries shows that it is possible to address these persistent inequities. (Figure 1 illustrates the association between household wealth, place of residence and women's education and unmet needs for contraception in the region.)

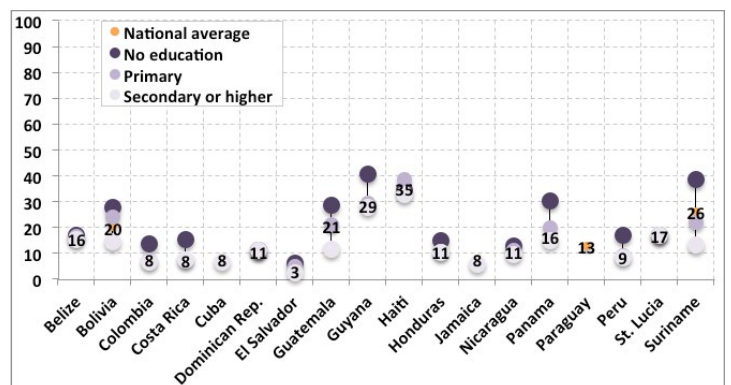
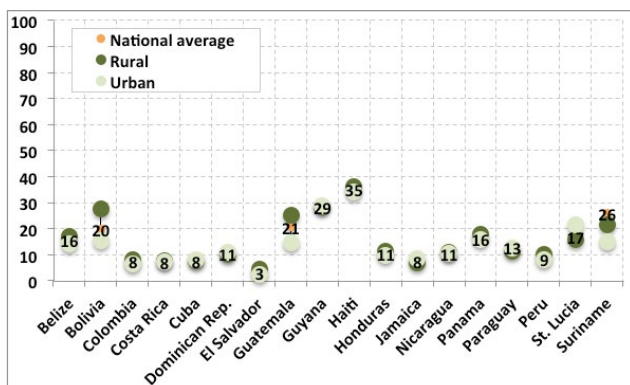
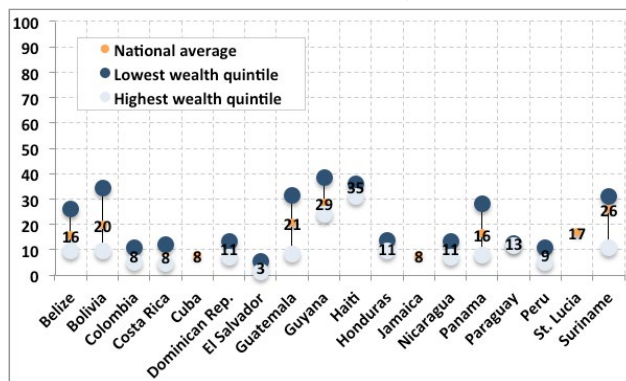
Findings from the period 2008-2014 show that:

- Women from the poorest quintile have an unmet need for contraception that is four times higher than the wealthiest in El Salvador, Guatemala, Bolivia and Panama.
- In Costa Rica, El Salvador, Guatemala, Panama, Peru and Suriname, women with no education have an unmet need for contraception that is at least twice as high as that of women with secondary or higher education.

Existing gaps in access to effective contraception and safe abortion are highly inequitable. Especially among indigenous populations inhabiting rural or remote areas, women do not enjoy comprehensive access to convenient, affordable or culturally appropriate reproductive health services and education.

Figure 1. Association between household wealth, place of residence and women's education and unmet needs for contraception in Latin America and the Caribbean

Percentage of women aged 15-49 years with an unmet need for contraception (for spacing and limiting) in Latin America and the Caribbean by wealth, place of residence and educational attainment, household surveys 2008-2014



Source: Analysis based on Demographic and Health Surveys, Reproductive Health Surveys, Multiple Indicator Cluster Surveys and other national surveys, 2008-2014.

## Sexually transmitted infections

Gender inequality contributes to increasing the vulnerability of women to acquiring HIV and other STIs; indigenous women and women who live in poverty are particularly vulnerable given the superposition of gender inequality, socioeconomic exclusion and discrimination and their limited access to health services that cater specifically to their needs. This suggests that policies to increase social equity and access to health services may serve to mitigate the transmission of HIV and STIs in the region.

## Cancer prevention and treatment

Throughout the past decade, breast cancer incidence and mortality have increased in Latin America and the Caribbean and has become the leading cause of cancer-attributed death for women in the region, with an estimated 43,200 deaths annually.<sup>13</sup> Most countries in the region have created programmes or policies for detection, diagnosis and treatment

of breast cancer, which largely have been incorporated into existing primary care or women's health services. As of 2012, all countries in the region had incorporated clinical breast exams into national health strategies and many were offering free mammograms. However, education, wealth and minority ethnicity are associated with a lower utilization of mammograms and other screenings. The lack of supplies and equipment and shortages of trained personnel are key barriers limiting the effectiveness of breast cancer screening programmes, creating inequitable access to diagnosis and treatment of breast cancer.

Cervical cancer is another serious concern, with 68,800 new cases and 28,600 deaths each year in Latin America and the Caribbean.<sup>14</sup> Infection with the human papillomavirus (HPV) is the main cause of cervical cancer and, in the region, acquiring HPV has been associated with early age of sexual initiation and a high number of sexual partners. Women from

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ethnic minorities may face more barriers to obtaining cancer screenings and experience higher incidence of cervical cancer and related mortality than other groups. Studies have found that Afro-descendant and indigenous women are less likely to be screened than other women and that women living in rural areas may face geographic barriers to screening and curative care, which may be located in more urban, populated areas.

More programmes are needed to suit the specific needs of disadvantaged female populations in screening and treating breast and cervical cancers. Health policies should consider expanding coverage under public health plans to improve equity in access to screening, diagnosis and treatment.

### Equity in maternal survival

#### Maternal mortality and morbidity

Between 1990 and 2015, the maternal mortality ratio (MMR) in Latin America decreased by 52 per cent from 124 to 69 per 100,000 live births, and in the Caribbean by 37 per cent, from 276 to 175 per 100,000 live births.<sup>15</sup> This means that the region failed to reach Millennium Development Goal 5, a 75 per cent reduction of MMR between 1990 and 2015.

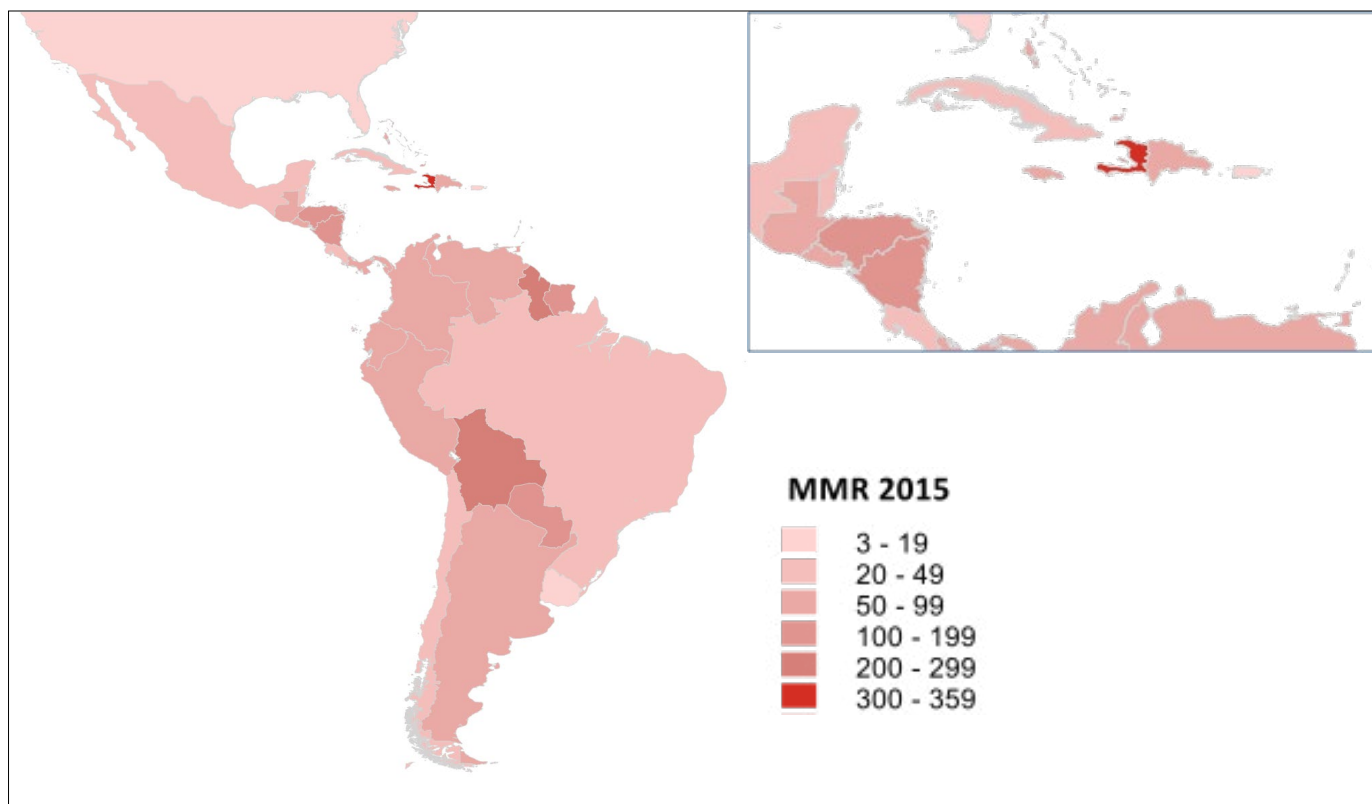
Much of the relative progress has been attributed to national and regional efforts in expanding access and quality of maternal and reproductive health services, as well as to improvements in sanitation, nutrition, education and other determinants of health. Still, an estimated 7,300 women died of maternal causes in Latin America and the Caribbean in 2015.<sup>16</sup> (See figure 2 for a map of the disparities in MMR between countries in the region.)

Regional statistics for 2008-2014 mask inequalities in maternal health outcomes that exist both between and within Latin American and Caribbean countries:

- Within the Caribbean, the MMR varies from 27 per 100,000 live births in Barbados and Grenada to 39 in Cuba, 92 in the Dominican Republic and 359 in Haiti.
- In Central America, the MMR ranges from 25 in Costa Rica to 150 in Nicaragua.
- In South America, Uruguay (15) and Chile (22) have MMRs under 25, compared to Bolivia, where the MMR is 206 and Guyana, which it is 229.

Figure 2. Maternal mortality in the Latin American and Caribbean region

Maternal mortality ratio (maternal deaths per 100,000 live births) in the Latin America and the Caribbean region, 2015.\*



\* This map does not reflect a position by UNICEF or its partners on the legal status of any country or territory or the delimitation of any frontiers.

Source: World Health Organization, UNICEF, United Nations Population Fund and The World Bank, Trends in Maternal Mortality: 1990 to 2015, WHO, Geneva, 2015.



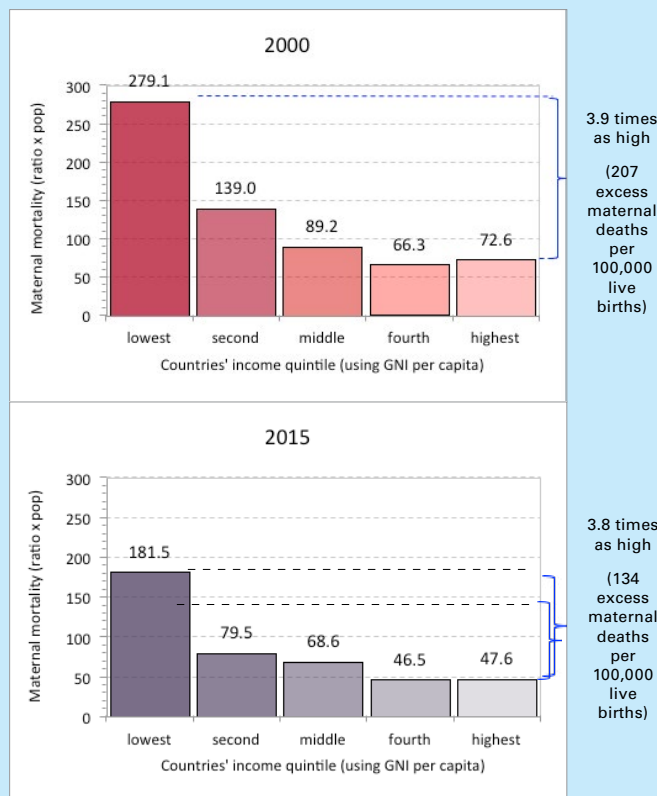
## Box 1. Income inequality between countries: maternal mortality

### Absolute and relative gaps

Income inequality in maternal mortality can be observed across countries in the Latin American and Caribbean region. Using gross national income (GNI) per capita in constant terms as the socioeconomic indicator to create subgroups of countries by income, in 2015 there was on average an excess of 134 maternal deaths for 100,000 live births in countries in the lowest 20 per cent of the income distribution as compared to countries in the highest 20 per cent of the income distribution. In relative terms, the risk of dying in 2015 due to a maternal-related cause in countries in the lowest 20 per cent of the income distribution was 3.9 times as high as that in the group of countries in the highest 20 per cent of the regional income distribution. Back in 2000, the absolute gap was much higher: 207 excess maternal deaths per 100,000 live births, whereas the relative gap was about the same (3.8 times).

#### Maternal mortality gradient in Latin America and the Caribbean

Relative (and absolute) gaps in maternal mortality by income in 2000 and 2015



### Concentration index of maternal deaths

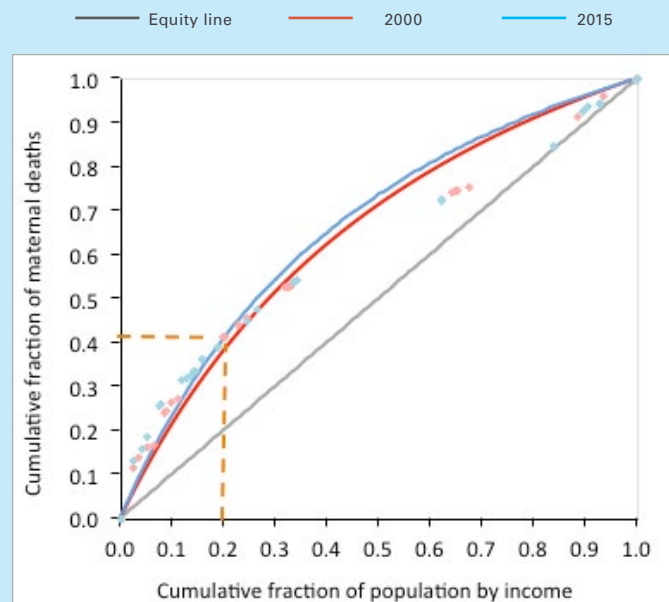
The concentration index is a relative measure of health inequality that quantifies the health gradient across subgroups with natural ordering, in this case countries ordered by national income. It indicates the extent to which a health outcome is concentrated among the socially disadvantaged or advantaged.

The concentration index of maternal deaths across the income hierarchy of Latin American and Caribbean countries in 2015 was -0.33, denoting high inequality, disproportionately

concentrated among the poorer countries. For instance, countries in the lowest income quintile (i.e., Haiti, Honduras, Nicaragua, Bolivia, Guyana, and Guatemala), which accounted for 11.7 per cent of the regional live birth population, concentrated up to 41 per cent of all maternal deaths, whereas countries in the upper quintile of the income distribution (i.e., Panama, Uruguay, Chile, Bahamas, Argentina and Trinidad and Tobago), which accounted for 10.6 per cent of the regional live birth population, concentrated 8 per cent of all maternal deaths. The concentration index of maternal deaths in 2000 was -0.29, signaling a marginal increase in relative inequality in the past 15 years.

In summary, the analysis of income inequalities in maternal mortality between countries of the region shows that between 2000 and 2015, there was a substantial reduction of absolute inequality gaps without a concurrent reduction in relative inequality. The former can be explained by the concomitant and substantial reduction in the average maternal mortality ratio over the period: the regional maternal mortality ratio decreased from 99.4 to 67.7 maternal deaths per 100,000 live births among the countries assessed between 2000 and 2015. This undeniable progress notwithstanding, the stagnation or even the increase in relative inequality implies that the pace of progress in the reduction of maternal mortality was greater in the most advantaged segments of the population (according to the income distribution) than in the more disadvantaged segments, where the burden of maternal deaths remains disproportionately concentrated.

#### Concentration curve of maternal deaths by income: Latin American and Caribbean countries



Sources of data: For maternal mortality WHO/UNICEF/UNFPA/World Bank/United Nations Population Division 2015 trends and levels of maternal mortality 2015. For GNI per capita UNDP, Human Development Index series based on the World Bank's Wealth Development Index, United Nations Statistics Division's main aggregates of national accounts database and the IMF World Economic Outlook, accessed 1 July 2015

## Direct and indirect causes of maternal death and the quality of health care

The vast majority of maternal deaths throughout Latin America and the Caribbean are preventable with quality obstetric care during pregnancy, delivery and postpartum. Unsafe abortions are a major source of maternal morbidity and mortality throughout the region.

Direct causes account for about 81 per cent of maternal deaths in Latin America and the Caribbean.<sup>17</sup> These conditions include hypertension, haemorrhage, abortion and sepsis, among other causes. Indirect causes account for the remaining maternal deaths and include primarily HIV, cardiovascular issues, anaemia and other preexisting medical conditions such as malaria and tuberculosis.<sup>18</sup> The region is unique with its abnormally high ratio of maternal mortality from hypertensive disorders of pregnancy such as eclampsia and pre-eclampsia. Evidence shows that women from poor and marginalized populations have a greater risk of suffering and dying from a maternal cause. Studies in Ecuador, Mexico, Brazil and Peru among others have linked pre-eclampsia, eclampsia or hypertensive disorders and related morbidity with lower socioeconomic position, mixed ethnicity, including Afro-descendance, and rural location of residence.

These preventable deaths remain concentrated among certain disadvantaged populations of women who face

inequity in access to adequate reproductive and maternal health-care services. In this way, an examination of the causes of maternal mortality and morbidity provides insight into fundamental economic, social and gender inequalities that are prevalent throughout Latin America and the Caribbean and creates a powerful case for social justice and gender equity.

The mechanisms through which vulnerable populations of women assume greater likelihood of suffering maternal death and illness are best illustrated through the 'three delays framework'.<sup>19</sup> According to this model, maternal health outcomes are jeopardized by three delays that women may experience during labour and delivery: the delay in seeking medical health care; the delay in arriving at a health-care facility; and the delay in receiving the necessary care once they have reached the health facility.

These three delays particularly affect women with low incomes, low levels of education, rural residence and minority ethnicity, who may also distrust medical facilities due to prior negative experiences or lack the financial resources to compensate direct and indirect costs involved in receiving care. As a result, these women may either perish outside of a health facility, may arrive at health facilities with already severe conditions that lower their chances of survival, or may die unattended inside health facilities.

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## Stillbirth

In 2015, it was estimated that the stillbirth prevalence in Latin America was 8.2 per 1,000 live births, or a total of approximately 91,000 stillbirths that year.<sup>20</sup> Studies in Latin America have shown that the main risk factors associated with stillbirth are lack of antenatal care and being small for gestational age. Women with no antenatal visits were at four times greater risk of fetal death than those with five or more visits.

## Equity in maternal health

Women with socioeconomic disadvantages are less likely to have contact with the health system during one of the most critical times in their lives: pregnancy and childbirth. The data indicate that disadvantaged women have less access across the continuum of antenatal visits and birth attendance, but particularly troubling are the very low levels of health care utilization around the time of birth, the most vulnerable period for mother and newborn. Birth services must be available 24 hours a day, seven days a week and include referrals for birth and obstetric complications and emergencies. Quality birth services are a critical component of addressing the poorer health outcomes, including maternal mortality, among the most vulnerable women.

## Antenatal care

WHO recommends a minimum of four antenatal care (ANC) visits, to help women prepare for delivery and understand warning signs during pregnancy and childbirth. ANC can be a source for micronutrient supplementation, treatment of hypertension to

prevent eclampsia, immunization against tetanus, HIV testing and medications to prevent perinatal transmission of HIV.

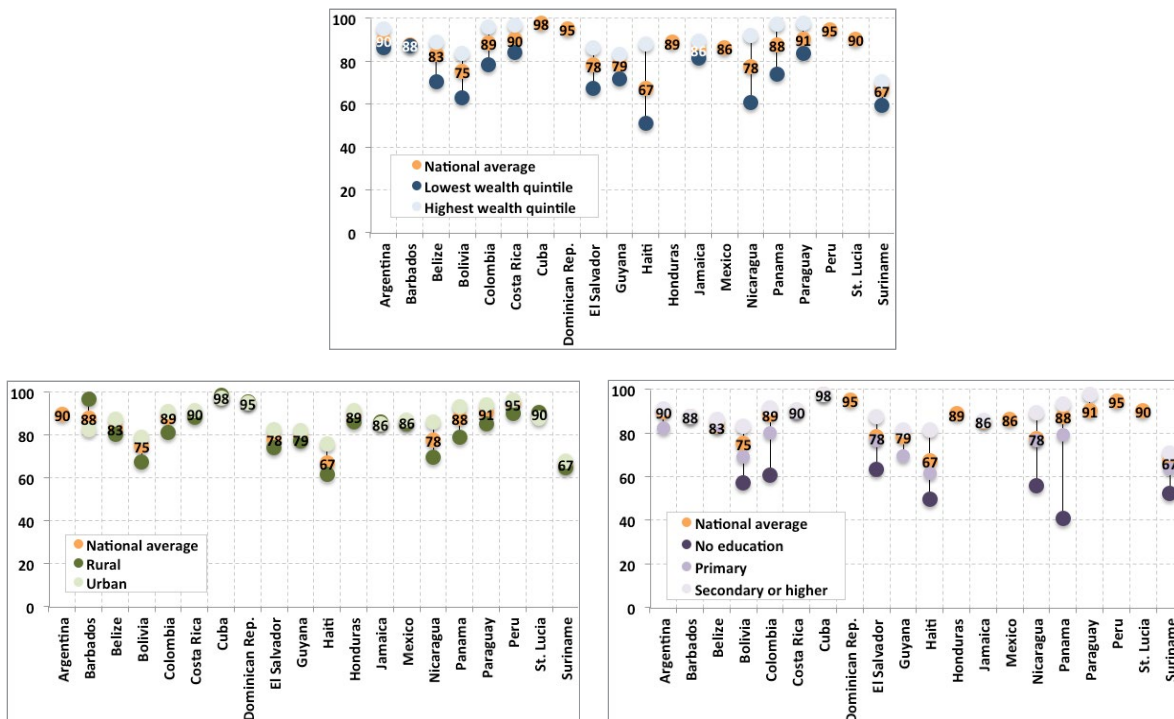
Although on average 90 per cent of women in Latin America and the Caribbean have at least four antenatal visits, large inequalities exist based on data from the period 2008-2014. Figure 3 illustrates inequalities between countries in the region by household wealth, rural/urban residence and mother's education level.

- Wealth is an important determinant. In Haiti and Nicaragua, there is a gap of more than 30 percentage points between the poorest and wealthiest women having at least four antenatal visits. In Bolivia and Panama, the gap is about 20 percentage points.
- Women in rural areas have fewer antenatal visits compared to women in urban areas, particularly in Bolivia, Haiti, Nicaragua and Suriname, where between 62 and 70 per cent of rural women have at least four antenatal visits against urban averages ranging from 68 to 86 per cent.
- In Colombia, Haiti, Nicaragua and Panama, women with no education fall behind those with secondary or higher education by more than 30 percentage points in having at least four antenatal visits.

Studies suggest that pregnant women from minority ethnicities have unequal access to antenatal care. In Brazil, various studies have noted that Afro-descendant women have less than the recommended number of antenatal care visits, are less likely to receive the recommended antenatal procedures and examinations

Figure 3. Inequalities in utilization of at least four antenatal care visits in Latin America and the Caribbean

Percentage of women aged 15–49 years with a live birth in the last 2-5 years with at least four antenatal visits by any provider in Latin American and Caribbean countries, by wealth, place of residence and educational attainment, household surveys 2008-2014



Source: Analysis based on Demographic and Health Surveys, Reproductive Health Surveys, Multiple Indicator Cluster Surveys and other national surveys, 2008-2014.

and their care is of lower quality. Similar findings have been documented for indigenous women in Guatemala, especially those who do not speak Spanish.

The barriers that prevent indigenous and Afro-descendant women from obtaining antenatal care are likely connected to broader trends of discrimination and vulnerability that affect these populations. In addition to the unequal utilization of antenatal care, the statistics do not reflect the quality of those services, but studies show that poorer women receive substandard antenatal care.

### Skilled birth attendance

One of the ways through which antenatal care improves maternal and perinatal health outcomes is by promoting the use of skilled attendants and health facilities for childbirth. Skilled birth attendance has long been associated with improved maternal and neonatal health outcomes; as most maternal deaths arise from obstetric complications, the presence of skilled birth attendants and institutional services provides a safer environment for the management of emergencies. Not only can antenatal care increase women's confidence in maternal health care services, it can educate them as to when to seek medical attention for emergencies.

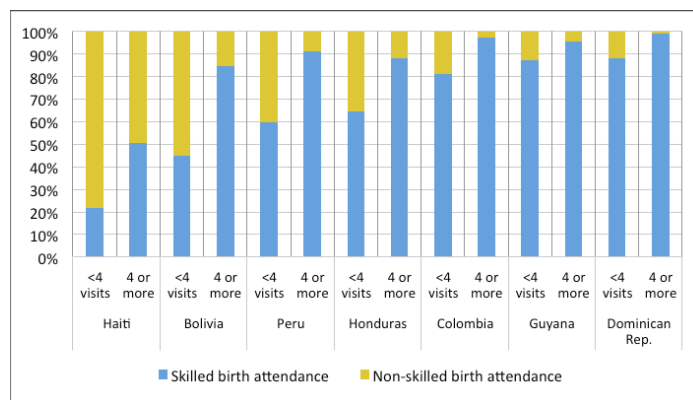
The main barriers to obtaining skilled birth attendance in Latin America and the Caribbean include the lower availability of medical personnel in rural and low-income areas, long and logistically difficult travel distances to health facilities, the associated costs of seeking care and perceived low quality or poor treatment available at health centres. Indigenous women in various Latin American countries are less likely to deliver with skilled birth attendance. Throughout the region, women who have a minimum of four ANC visits have a significantly higher likelihood of delivering with a skilled birth attendant. See figure 4 below for an illustration of this link in seven countries, and figure 5 for a depiction of the inequalities in skilled birth attendance across the region by household wealth, rural/urban residence and mother's education. Figure 6 illustrates the lower rates of utilization of antenatal care, skilled birth attendance and follow-up care by indigenous and Afro-descendant women in eight countries.

For the period 2008-2014, findings show that:

- Inequalities in utilization of skilled birth attendance are particularly marked by wealth. The gap between the poorest and the wealthiest is 75 percentage points in Guatemala, 69 in Haiti, 42 in Bolivia and 41 in Honduras. In Peru, despite having 90 per cent of skilled birth attendance, women from the poorest wealth quintile lag behind the wealthiest by 32 percentage points.
- The greatest gaps between rural and urban women are in Guatemala (41 percentage points), Haiti (35 percentage points) and Bolivia (26 percentage points).
- Great gaps exist in utilization of skilled birth attendance by the mother's education, particularly in Guatemala (65 percentage points), Panama (56), Haiti (47) and Honduras (41).

Figure 4. Antenatal care and skilled attendance at birth go hand in hand

Percentage of women aged 15–49 years with a live birth in the last two years by type of birth attendance among those attended at least four times during pregnancy in Bolivia, Colombia, Dominican Republic, Guyana, Haiti, Honduras and Peru, 2008-2013 household surveys



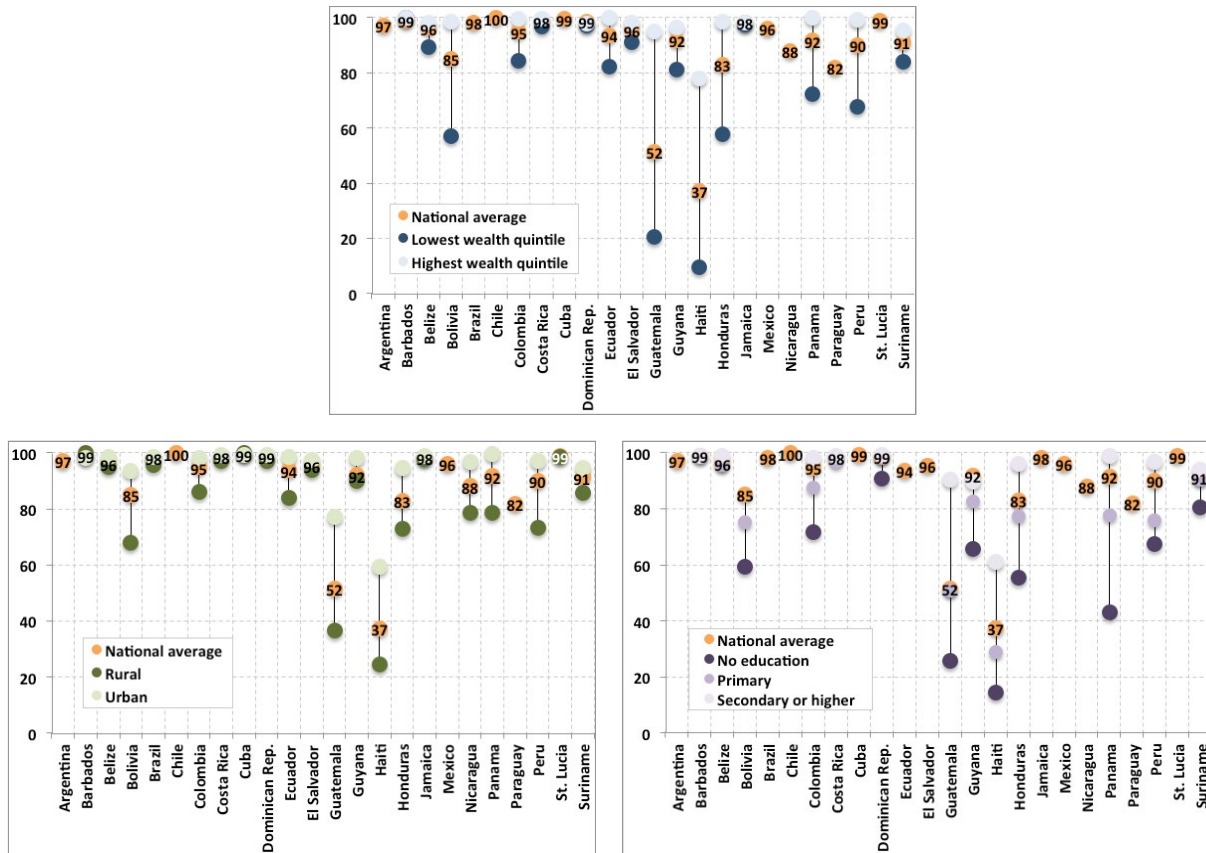
Source: Demographic and Health Surveys from Honduras 2012, Haiti 2012, Dominican Republic 2013, Peru 2012, Bolivia 2008, Colombia 2010 and Guyana 2009.

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Figure 5. Inequalities in skilled birth attendance across Latin America and the Caribbean

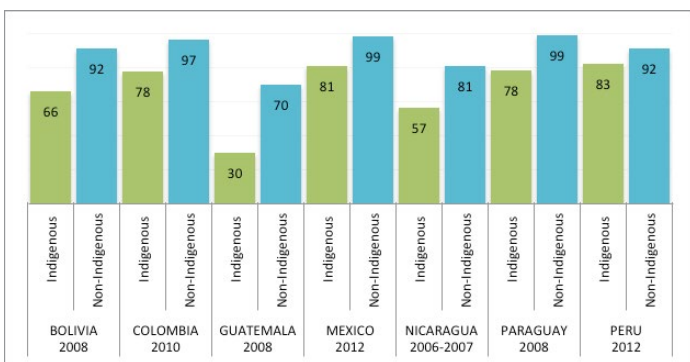
Percentage of live births in the last 2-5 years attended by skilled birth attendants in Latin American and Caribbean countries, by wealth, place of residence and educational attainment, household surveys 2008-2014



Source: Analysis based on Demographic and Health Surveys, Reproductive Health Surveys, Multiple Indicator Cluster Surveys and other national surveys (2008-2014).

Figure 6. Across Latin America, indigenous and Afro-descendant women have lower rates of utilization of antenatal care, skilled birth attendance and follow-up care

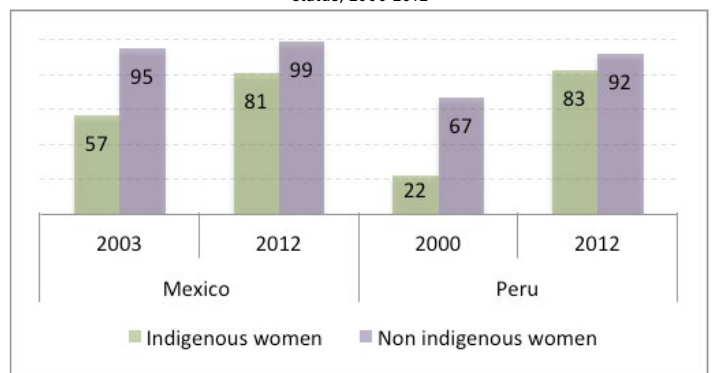
Percentage of Indigenous and non-Indigenous women with skilled birth attendance in Bolivia, Colombia, Ecuador, Guatemala, Mexico, Nicaragua, Paraguay and Peru, 2004-2012



Source: Castro A, Savage V, Kaufman H. Assessing Equitable Care for Indigenous and Afrodescendant Women in Latin America. Pan Am J Public Health, 2015, based on ECLAC. *Guaranteeing Indigenous People's Rights in Latin America*. Santiago, Chile: Economic Commission for Latin America and the Caribbean, 2014.

Figure 7. Progress in maternal health coverage for indigenous women in Mexico and Peru

Percentage of women with skilled birth attendance in Mexico and Peru, by indigenous status, 2000-2012



Source: Analysis based on The Millennium Development Goals Report 2015. New York: United Nations, 2015

Skilled birth attendance for indigenous women in Mexico and Peru has increased throughout the past decade, as shown in figure 7. Although gaps have decreased, considerable health inequalities still persist among ethnic groups in those countries.

### Caesarean sections

For medically complicated pregnancies and deliveries, caesarean sections are life-saving surgeries that help to ensure optimal maternal and perinatal health outcomes. A percentage of births by caesarean below 5 per cent may mean that not all women who need one will receive an emergency caesarean section.<sup>21</sup> Throughout Latin America and the Caribbean, caesarean sections have grown rapidly except in Haiti, where some women and newborns may suffer complications and even die for lack of access to a caesarean section.

Without a medical indication, caesarean sections can actually have negative health implications for both pregnant women and their infants.<sup>22</sup> A high proportion of birth by caesarean section implies that many of these surgeries are performed without medical need. Supporting this implication, a 2009 study in eight Latin American countries discovered that 45 per cent of all caesarean sections were not medically necessary.<sup>23</sup>

For the period 2008-2014, Haiti is the only country in the region with a percentage of births by caesarean section lower than 10 per cent, at 6 per cent. This percentage is even lower for the poorest women (1 per cent, with a range of 1 to 8 per cent for the four poorest income groups), those in rural areas (3 per cent) and those having no education (1 per cent) or only primary education (4 per cent).

### HIV and syphilis during pregnancy

Inaccessible or inadequate antenatal care limits women's access to testing for syphilis and HIV during pregnancy. In addition to facing structural issues within maternal health systems, women with HIV or syphilis may also avoid institutional antenatal care or fail to disclose their disease status. Inequity in access to HIV and syphilis screening and treatment during pregnancy is most commonly experienced by women with low levels of education and from poorer demographics.

It is estimated that among pregnant women in Latin America and the Caribbean, 75 per cent received an HIV test and 79 per cent among those who received prenatal care were tested for syphilis in 2014.<sup>24</sup> Of those who tested positive for HIV, 81 per cent received antiretroviral treatment (ART) for their own health and to prevent perinatal transmission of HIV.<sup>25</sup>

Treatment for syphilis is unreported by most countries. Syphilis is a chronic, often latent, STI with clinically recognizable stages;

if untreated, it can result in neurological and cardiovascular disease. Pregnant women with untreated syphilis (maternal or gestational syphilis) can transmit the infection to the fetus in utero or by direct contact with lesions during childbirth; the resulting congenital syphilis is the most prevalent form of perinatally-transmitted neonatal infection in the world.

Latin America and the Caribbean has the highest incidence of syphilis in the world and accounts for up to 25 per cent of the 2 million annual cases of gestational syphilis.<sup>26</sup> The birth of thousands of children with HIV and congenital syphilis indicates the lack of adequate antenatal care, existing shortages of supplies (HIV and syphilis tests and reagents, kits for caesarean sections) and medications (antiretrovirals, penicillin), centralization of laboratory and specialized services such as HIV and high-risk obstetrics, and lack of coordination (including referral and counter-referral) between obstetric and HIV care providers.

Barriers inside the health-care setting result in the failure to provide HIV and syphilis testing as routine procedures to pregnant women, delays in obtaining test results, subsequent gaps in follow-up prophylaxis and treatment, and loss to follow-up of children exposed to HIV or syphilis and their mothers. These limitations exist within a context of limited infrastructure and non-integrated health programmes that are the norm for most low- and middle-income settings.

### Equity in neonatal survival

A newborn infant, or neonate, is a child under 28 days of age. In Latin America and the Caribbean, an estimated 102,000 newborns aged up to 27 days died in 2015, which translates into a regional neonatal mortality rate (NMR) of 9 deaths per 1,000 live births, down from 255,000 neonatal deaths or a NMR of 22 in 1990.<sup>27</sup>

Globally, neonatal mortality has also declined over time but—as survival of children 28 days and older continues to improve faster than survival for neonates—the proportion of deaths of children under age five years that occur during the first 27 days of life has been steadily increasing and is expected to continue to increase. In Latin America and the Caribbean, neonatal deaths contributed to 52 per cent of the total number of deaths among children under the age of five years in 2015, up from 41 per cent in 1990. According to 2015 data, preterm birth complications in Latin America, as in the rest of the world, were the leading cause of neonatal deaths, followed by congenital abnormalities, intrapartum-related complications and sepsis.

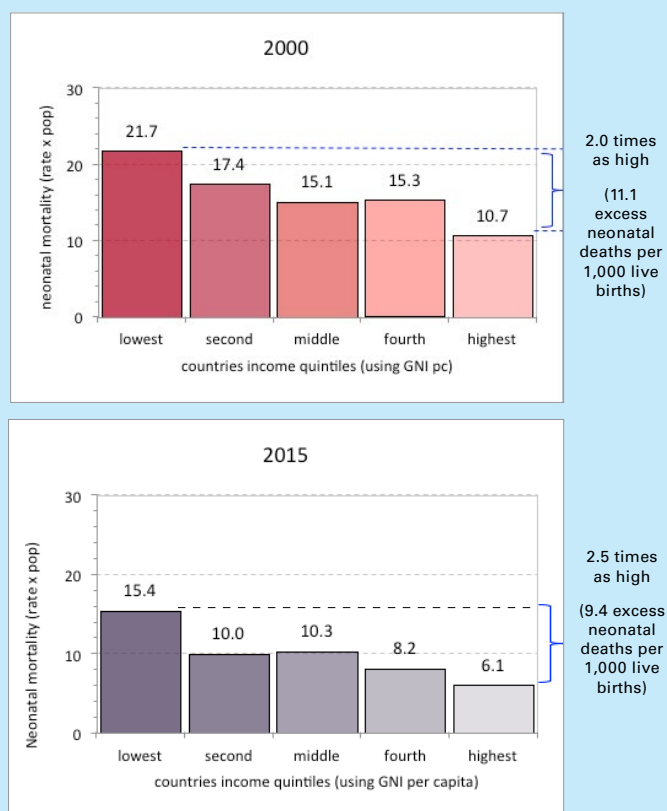
## Box 2. Inequality by national income: neonatal mortality

### Absolute and relative gaps

Income inequality in neonatal mortality can be observed across countries in the Latin American and Caribbean region. Using GNI per capita in constant terms as the socioeconomic indicator to create subgroups of countries in the region by income, in 2015 there was on average an excess of 9.4 neonatal deaths for each 1,000 live births in countries in the lowest 20 per cent of the income distribution as compared to countries in the highest 20 per cent of the income distribution. In relative terms, in 2015 the risk of a newborn of dying during the first 28 days of life in countries in the lowest income quintile was 2.5 times as high as compared to the group of countries in the highest income quintile. Back in 2000, the absolute gap was higher: 11.1 excess neonatal deaths per 1,000 live births, whereas the relative gap was lower (2 times).

#### Neonatal mortality gradient in Latin America and the Caribbean

Relative (and absolute) gaps in under-five mortality by income in 2000 and 2015



### Concentration index of neonatal deaths

The concentration index is a relative measure of inequality that shows the health gradient across subgroups with natural ordering, in this case countries ordered by national income. It indicates the extent to which a health outcome is concentrated among the disadvantaged or the advantaged.

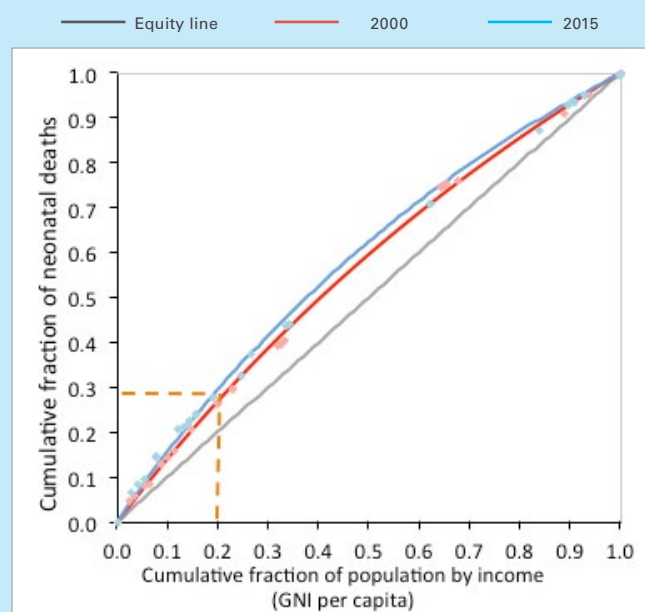
The concentration index for neonatal mortality in 2015 was -0.17, which denotes excess inequality across countries in the region. For instance, countries in the lowest income quintile in the region (which are home to 13 per cent of the regional births)

concentrate 29 per cent of the neonatal deaths while countries in the highest income quintile of the regional distribution, (which are home to 10 per cent of regional births) concentrate 13 per cent of all neonatal deaths. Looking at trends over time, the concentration index increased marginally from -0.13 to -0.17 between 2000 and 2015 signaling a marginal increase in relative inequality in the past 15 years.

In summary, the analysis of income inequalities in neonatal mortality between countries of the region shows that between 2000 and 2015, there was a modest reduction of absolute inequality gaps without a concurrent reduction in relative inequality. The *average* neonatal mortality rate over the period decreased from 14.7 to 9.3 neonatal deaths per 1,000 live births among the countries assessed between 2000 and 2015, which explains the modest fall in the absolute inequality gap between extreme income quintiles. The marginal increase in relative inequality gap and gradient implies that the pace of progress in the reduction of neonatal mortality was greater in the most advantaged segments of the population (according to the income distribution) than in the more disadvantaged segments, where the burden of neonatal deaths remains disproportionately concentrated.

#### Concentration curve of neonatal deaths by income: Latin American and Caribbean countries

Absolute and relative gaps by income in neonatal mortality in 2000 and 2015



Sources of data: For neonatal mortality Inter-Agency Group for Child Mortality Estimation estimates 2015. For GNI per capita UNDP, Human Development Index Series based on the World Bank's Wealth Development Index, United Nations Statistics Division's main aggregates of national accounts database and the IMF World Economic Outlook, accessed 1 July 2015.

Compared to the regional average of 9 per 1,000 live births, the highest NMR for the period 2008-2014 is found in Haiti, with an estimated rate of 25.4 per 1,000 live births. However, Bolivia presents the largest gaps within a country: among women with no education in Bolivia the NMR is 66, three times larger than among women with the highest level of education achievement; and NMR among the poorest is three times greater than among the richest in the country (50 and 17 per 1,000 live births respectively). There is also a considerable urban/rural gap in Bolivia, with a NMR of 40 in rural settings, in contrast to 23 in urban areas.

As in Bolivia, the NMR for 2008-2014 is three times greater among newborns in the poorest households than in the wealthiest households in the Dominican Republic (26), El Salvador (13) and Guatemala (25).

Other countries with high relative differences in the same period between education levels include El Salvador (where the NMR is three times greater among newborns whose mothers have no education than among those whose mothers have secondary or higher education) and Peru, Guatemala and Colombia, where it is two times greater.

Studies show that indigenous and Afro-descendant populations have higher NMRs than other population groups. The decline in neonatal mortality in Brazil has been smaller among Afro-descendant populations than among other groups. Differences in neonatal mortality have been explained in part by poverty, inadequate antenatal care and socioeconomic inequality.

Poverty affects both the context in which a child is born and the quality of care at birth. A study of the socioeconomic and health inequalities in Brazil and other countries that analysed data from 1990 to 2010, found that infant mortality decreased considerably and the income-related inequalities in infant mortality also fell substantially. Some of the main factors that contributed to these improvements in Brazil were the creation of a unified national health system with a focus on primary health care and the incorporation of disease-specific programmes, improvements in social conditions in the country (economic growth, reduction in income inequalities, education of women, fertility) and interventions carried out in non-health sectors (conditional cash transfers and water and sanitation).

## Equity in neonatal health

During the first 28 days of life, a newborn child is at highest risk of dying. It is thus crucial that appropriate feeding and care are provided during this period, both to improve the child's chances of survival and to lay the foundations for a healthy life. This includes addressing the causes of neonatal mortality, as well as other critical factors including low birth weight, breastfeeding and postnatal care. Birth registration is another important step in the life of newborn infants, so they can claim their rights to a name and nationality.

## Low birth weight

Low birth weight is defined as weight at birth of less than 2,500 grams or 5.5 pounds. It is the result of either the preterm birth of an infant—defined as being born before 37 weeks of gestation—or restricted fetal growth. An infant born with a low birth weight is approximately 20 times more likely to die than a heavier newborn. Low birth weight is associated with problems throughout the life course from fetal and neonatal morbidity and mortality, inhibited growth and cognitive development, to chronic diseases in later life. The incidence of low birth weight is underestimated, as more than half of newborns in the world, as of 2011, were not weighed at birth, a reflection of substandard newborn care. Therefore, knowing the percentage of newborns who are weighted at birth becomes an essential indicator of equity in newborn care.

In all countries with disaggregated data, the percentage of newborns in 2008-2014 whose birth weight is reported is higher among those whose mothers belong to the wealthiest quintile, live in urban areas and have secondary or higher education. Additionally:

- In Haiti, only one fourth (24 per cent) of newborns are weighed at birth. The countries with the next lowest percentages are Bolivia (72 per cent), Suriname (81 per cent), Nicaragua (82 per cent), Honduras (83 per cent) and Guyana (84 per cent).
- In Haiti, newborns from the wealthiest quintile are seven times more likely to be weighed at birth than those from the lowest quintile, and urban newborns are three times more likely to be weighed at birth than rural newborns.
- Newborns whose mothers have secondary or higher education are four times more likely to be weighed at birth than newborns whose mothers have no education in Haiti and two times more likely in Bolivia and Panama

## Postnatal care for mothers and newborns

Postnatal care is essential for the health of both the mother and her newborn. Half of neonatal deaths and 25 per cent of maternal deaths occur during labour, delivery and the first 24 hours postpartum; by the end of the first week postpartum, the figures increase to two thirds and 60 per cent, respectively. Through interventions delivered during postnatal care, complications can be identified and healthy practices promoted.

There are great variations between countries in the percentage of newborns who receive postnatal care within two days after birth in the period 2008-2014. The lowest percentages are found in Haiti, ranging from only 9 to 20 per cent of newborns from the four lowest income groups. The widest gaps between the poorest and the wealthiest are in Bolivia (46 percentage points), Haiti (35), Honduras (24) and Panama (24). Additionally:

- Postnatal care is lower for rural newborns, with the lowest coverage found among rural Haitian newborns (14 per cent). The widest gaps are in Bolivia (26 percentage points), Paraguay (21), Panama (18), Dominican Republic (16), Haiti (15) and Honduras (14).



- In all countries, postnatal care is less frequent among newborns whose mothers have no education, particularly in Haiti (9 per cent). The gaps between newborns whose mothers have no education and those with secondary or higher education are as large as 51 percentage points in Panama, 39 in Bolivia, 29 in Honduras, 22 in El Salvador and 20 in Peru.
- In Panama, 100 per cent of Afro-descendant newborns receive care within two days after birth, but indigenous children lag 30 percentage points behind, with only 70 per cent of newborns receiving postnatal care. See figure 8 for an illustration.

### Birth registration and the right to an identity

Birth registration constitutes legal recognition of a person's existence and enables the fundamental human right to have a name and a nationality. The registration and the birth certificate that accompanies it allow a person to exercise her or his most basic rights and take advantage of benefits such as accessing the education and health systems and participating in political processes. UNICEF has found that as of 2014, 8 per cent of children aged 0-4 years in Latin America and the Caribbean—or roughly 4 million children—were not registered at birth.

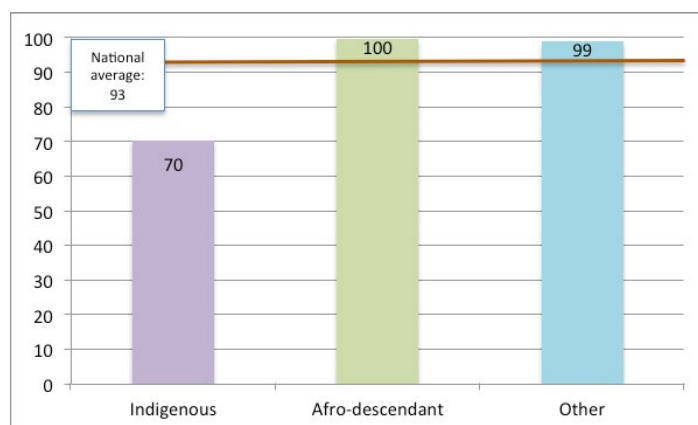
Despite having more favourable birth registration outcomes compared to other regions in the world, in the Latin American and the Caribbean region there are considerable inequalities across and within countries. Registered births in 2013 range from 76 per cent of the population of children under five years of age in Bolivia and Paraguay, to 100 per cent in Argentina, Costa Rica, Cuba and Uruguay. Inequities exist within countries due to geographical, economic, social, cultural and institutional barriers in accessibility, causing significant differences throughout the region. See figure 9 for an illustration of inequities across the region by household wealth.

Findings for the period 2008-2014 show that:

- The lowest prevalence of birth registration is among the poorest quintile in the Dominican Republic (65 per cent) and Haiti (71 per cent). It is also in those two countries where the gaps between the poorest and the wealthiest are greater, ranging from 33 percentage points in the Dominican Republic to 21 percentage points in Haiti.
- Birth registration coverage is higher among the wealthiest in all countries.
- In most countries, birth registration coverage is lower for rural children. The widest gaps are 16 percentage points in Mexico, 8 in Haiti and 5 in the Dominican Republic.
- Only Argentina, Belize, Costa Rica, El Salvador, Panama and Suriname have complete data on birth registration by education of the mother. The gaps in those countries are small, except in Panama, where 82 percentage points below the coverage for children of mothers with no education have their births registered—15 percentage points below the coverage for children of mothers with secondary or higher education.
- In Paraguay, 70 per cent of children whose families speak

Figure 8. Inequalities in postnatal care for newborns in Panama across ethnic groups

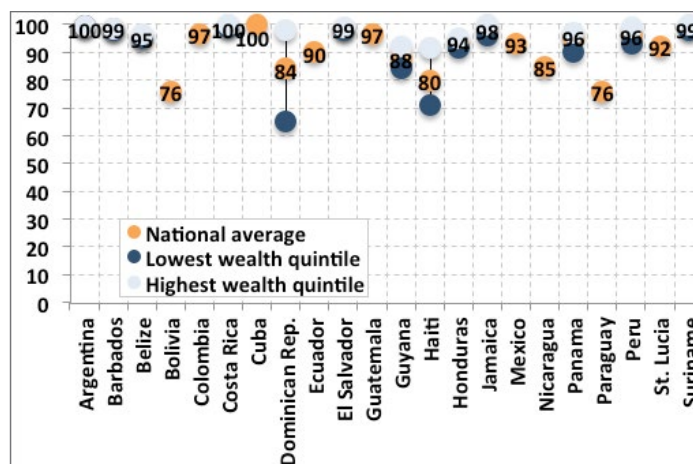
Percentage of newborns who receive postnatal care within two days after birth, by ethnic group, in Panama, 2013



Source: Analysis based on Multiple Indicator Cluster Survey from Panama, 2013.<sup>1</sup>

Figure 9. Inequalities in birth registration in Latin America and the Caribbean

Percentage of children aged 0-4 years whose births are reported registered by wealth, 2008-2014



Source: Analysis based on Demographic and Health Surveys, Reproductive Health Surveys, Multiple Indicator Cluster Surveys and other national surveys, 2008-2014.

Guaraní at home are registered (17 percentage points below those who speak Guaraní and Spanish and 24 percentage points below those who speak Spanish).

### Equity in child survival

Helping children to survive and thrive involves reducing the causes of infant and under-five mortality through measures including immunization, improved sanitation and hygiene to combat diarrhoea, care for sick children, especially with pneumonia and other respiratory infections, and combating communicable diseases.

Indigenous populations in Latin American and Caribbean countries may have limited access to safe water and sanitation

services, which fuels higher prevalence of diarrhoeal diseases among indigenous children. Poor living conditions, inadequate nutrition and high exposure to infection cause a heavy burden of disease in infants and children, including upper and lower respiratory tract infections. These populations also face inequities in the probability of accessing appropriate health care.

### Infant and child mortality

In Latin America and the Caribbean, it is estimated that 196,000 children under the age of five years died in 2015 (under-five mortality rate [U5MR] of 18 deaths per 1,000 live births). Of these, 85 per cent (167,000 children) were under the age of one year (infant mortality rate [IMR] of 15 deaths per 1,000 live births).<sup>28</sup> Figure 10 shows the breakdown by country compared to the regional averages.

For the period 2008-2014, the greatest gaps in IMR and U5MR are found within wealth quintiles and within education groups.

- In countries with disaggregated data, the IMR is highest among Bolivian infants whose mothers have no education, those from the poorest quintile and those from rural areas; Dominican children whose mothers have no education; and Haitian infants whose mothers have no education and those from the poorest quintile.

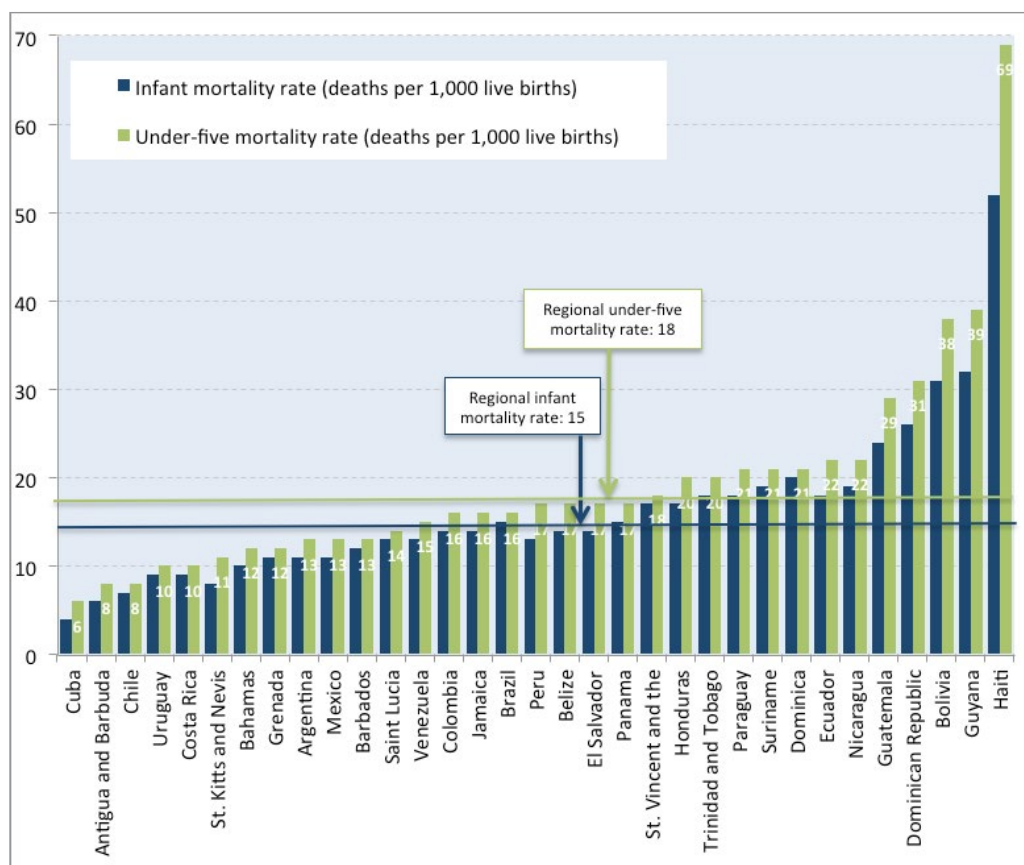
The highest U5MR in countries with disaggregated data is among the poorest children in Bolivia and in Haiti.

- The difference in IMR between infants whose mothers have no education and those whose mothers have secondary or higher education is as much as seven times in El Salvador, three times in Bolivia, Guatemala, Colombia and the Dominican Republic and twice in Peru.

Cuba, Chile and Costa Rica are examples of countries where inequity has been reduced successfully by decreasing the gap between the richest and poorest population groups, primarily through improving women's access to education and increased coverage of public health measures.

But even as mortality rates in Latin America continue to decline, inequity is still a major health problem. There is evidence that shows that the coverage of maternal and child health initiatives favours women with a higher socioeconomic position, who benefit from new programmes.

Figure 10. Infant and under-five mortality rates in Latin American and Caribbean countries, 2015



Source: Analysis based on UNICEF. *Committing to Child Survival: A Promise Renewed. Progress Report 2015*. New York: UNICEF, 2015 304 and UNICEF. *Levels & Trends in Child Mortality. Report 2015. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation*. New York: UNICEF, 2015.<sup>303</sup>

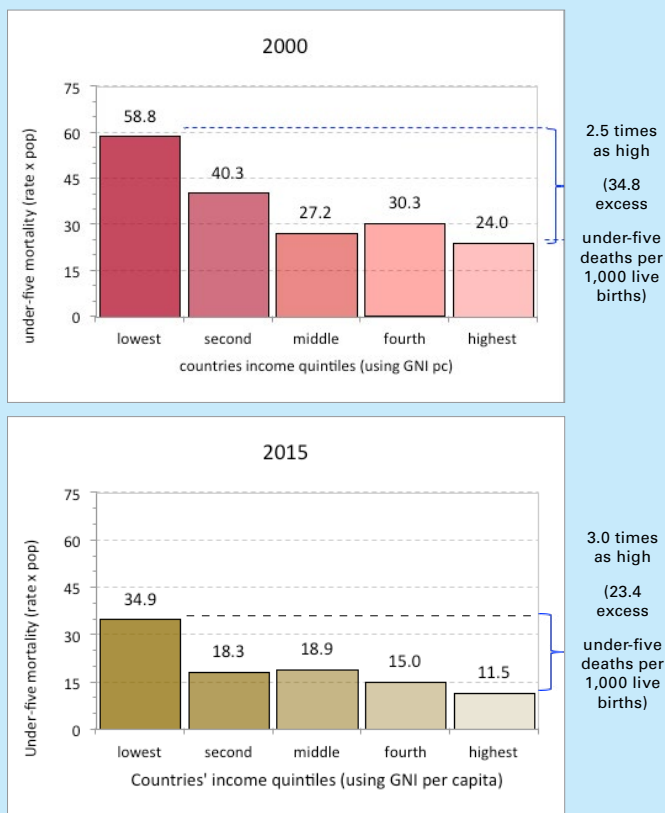
### Box 3. Inequality by national income: under-five mortality

#### Absolute and relative gaps

Income inequality in under-five mortality can be observed across countries in Latin America and the Caribbean region. Using GNI per capita in constant terms as the socioeconomic indicator to create subgroups of countries in the region by income, in 2015, there was on average an excess of 23.4 deaths for each 1,000 live births among children under five years of age in countries in the lowest 20 per cent of the income distribution as compared to countries in the highest 20 per cent of the income distribution. In relative terms, in 2015, the risk of a child dying before his or her fifth birthday in countries in the lowest income quintile was three times as high as compared to the group of countries in the highest income quintile. Back in 2000, the absolute gap was higher (34.8 excess under-five deaths per 1,000 live births), whereas the relative gap was lower (2.5 times).

#### Under-five mortality gradient in Latin America and the Caribbean

Relative (and absolute) gaps in under-five mortality by income in 2000 and 2015



#### Concentration index for deaths of children under five years of age

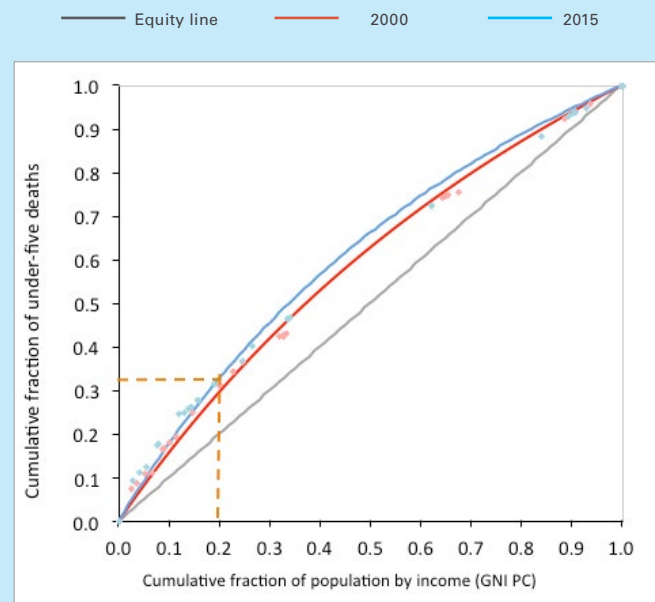
The concentration index is a relative measure of inequality that shows the health gradient across subgroups with natural ordering, in this case countries ordered by national income. It indicates the extent to which a health outcome is concentrated among the disadvantaged or the advantaged.

The concentration index of under-five deaths across the income hierarchy of Latin American and Caribbean countries

in 2015 was -0.22, denoting high inequality, disproportionately concentrated among the poorer countries. For instance, countries in the lowest income quintile, which – in this analysis – accounted for 12.8 per cent of the regional live birth population, concentrated up to 33 per cent of all under-five deaths, whereas countries in the highest quintile of the income distribution, which accounted for 10.6 per cent of the regional live birth population, concentrated 11 per cent of all under-five deaths. The concentration index of under-five deaths in 2000 was -0.17, signaling an increase in relative inequality in the past 15 years.

In summary, the analysis of income inequalities in under-five mortality between countries of the region shows that between 2000 and 2015, there was a substantial reduction of absolute inequality gaps without a concurrent reduction in relative inequality. The former can be explained by the substantial reduction in the average under-five mortality rate over the period: the regional under-five mortality rate decreased from 32.0 to 18.0 under-five deaths per 1,000 live births among the countries assessed between 2000 and 2015. This undeniable progress notwithstanding, the increase in relative inequality implies that the pace of progress in the reduction of under-five mortality was greater in the most advantaged segments of the population (according to the income distribution) than in the more disadvantaged segments, where the burden of under-five deaths remains disproportionately concentrated.

#### Concentration curve of under-five deaths by income : Latin America and Caribbean countries



Sources of data: For under-five mortality Inter-Agency Group for Child Mortality Estimation estimates 2015. For GNI per capita UNDP, Human Development Index series based on the World Bank's Wealth Development Index, United Nations Statistics Division main aggregates of national accounts database and the IMF World Economic Outlook, accessed 1 July 2015.

## Equity in child health

### Immunization

The expanded programme on immunization was launched in Latin America and the Caribbean in 1977. The programme focused on six diseases and called for the application of four different vaccines: measles vaccine; combined diphtheria, pertussis and tetanus (DPT) vaccine; tuberculosis vaccine (BCG); and oral polio vaccine.<sup>29</sup> At that time, only 25 to 30 per cent of children in the region were receiving these vaccines. As of 2013, polio, measles and rubella had been eliminated in the region and there have been reductions in morbidity and mortality due to vaccine-preventable diseases.

A challenge that remains is ensuring that all children have equal access to immunization services. As of 2012, 50 per cent of the 14,716 municipalities in Latin American and Caribbean countries reported coverage for three doses of DPT (DPT3) at less than 95 per cent, and 23 per cent reported less than 80 per cent coverage, which places them at risk for the reemergence of vaccine-preventable diseases that have been eliminated, eradicated or are under epidemiological control. Since the 1980s, national immunization days and other vertical, campaign-based strategies have been promoted to help improve vaccination coverage.

Across the region, the greatest gaps in BCG, DPT3 and measles vaccination for the period 2008-2014 are found along wealth and education groups.

- The greatest gaps in BCG vaccination occur in Haiti, where 74 per cent of the poorest and 91 per cent of the wealthiest are immunized, and where 69 per cent of children whose mothers have no education are immunized, compared to 89 per cent of children whose mothers have secondary or higher education.

- The greatest gaps in DPT3 coverage are between the wealthiest and the poorest in Suriname, Panama, Haiti and the Dominican Republic, and between the least and most educated in Haiti, Colombia and Panama.
- The greatest gaps in measles vaccination coverage are between the poorest and the wealthiest in Guyana, Panama and Suriname, and between the least and most educated in Colombia and Haiti.

### Pneumonia

Pneumonia is the main cause of mortality among children aged 1-59 months in Latin America and the Caribbean, causing 10 per cent of all deaths in that age group.<sup>30</sup> Pneumonia deaths are concentrated among the poorest children. Given that effective case management is an important strategy to reduce pneumonia-related morbidity and mortality in children, inequity in access to health care for pneumonia is a factor in explaining differential health outcomes.

For the period 2008-2014, the widest gaps in children with symptoms of pneumonia taken to a health care provider are within wealth and education groups. Children of mothers with no education are taken to a health facility less frequently when symptoms of pneumonia arise than those of mothers with secondary or higher education. Figure 11 shows the inequalities by household wealth, urban/rural residence and mother's education in countries across the region.

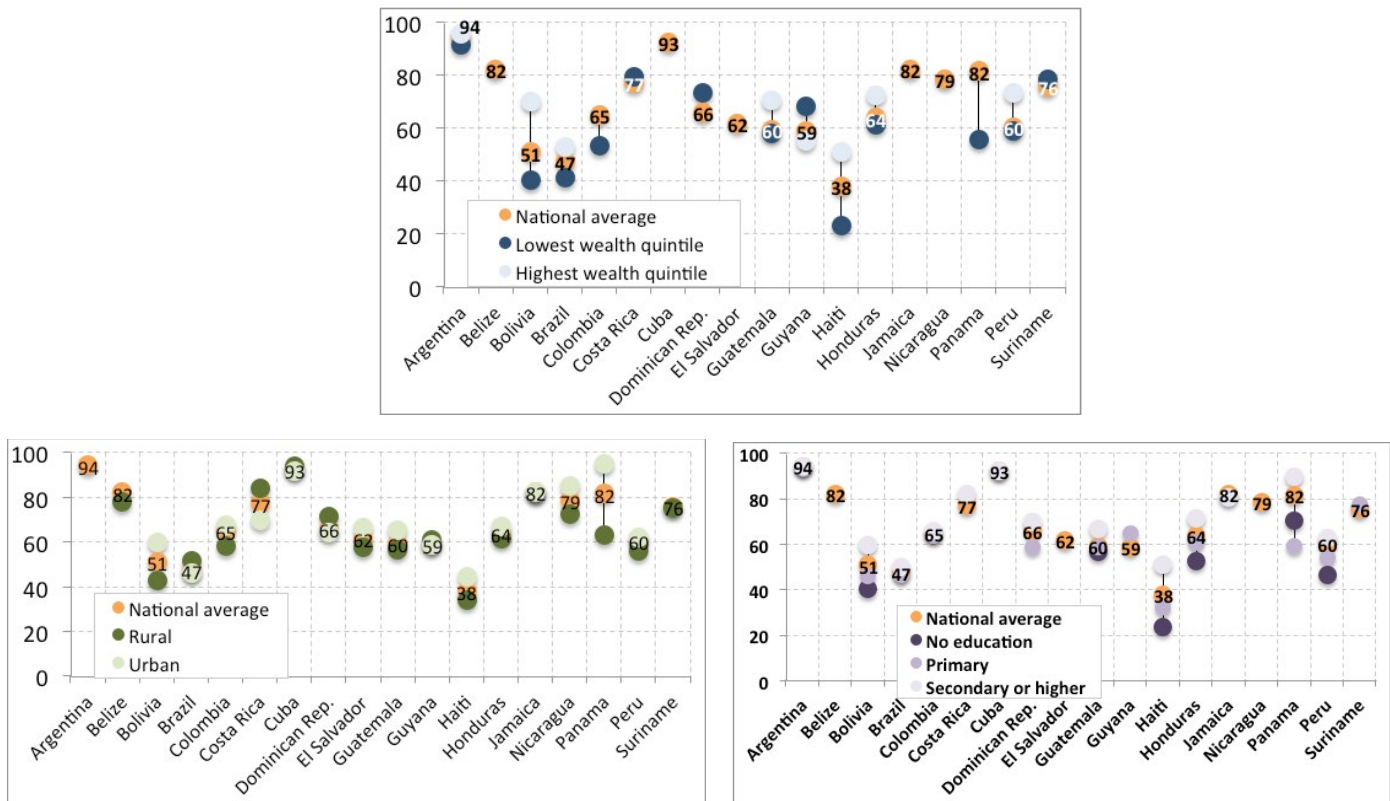
- Haiti has the lowest prevalence of children with symptoms of pneumonia taken to a health care provider (38 per cent), with 51 per cent among the children from wealthiest households as compared to 23 per cent among children from the poorest households. The same coverage and gap is observed among children whose mothers have secondary or higher education, as compared to those whose mothers have no education.

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Figure 11. Inequalities in seeking care for pneumonia symptoms

Percentage of children under five years of age with symptoms of pneumonia taken for care to a health provider in Latin American and Caribbean countries, by wealth, place of residence and educational attainment of the mother, household surveys 2008-2014



Source: Analysis based on Demographic and Health Surveys, Reproductive Health Surveys, Multiple Indicator Cluster Surveys and other national surveys, 2008-2014.

## Asthma

Asthma in Latin America is a growing public health problem that is most common among poor urban populations; among children in the region, asthma is mostly non-atopic (non-allergic) and has been linked with exposure to household dirt, malnutrition, obesity and psychosocial stress, factors that are also related to poverty and inequality. Current information on the burden and impact of allergic conditions on adults and children in any Latin American country is limited. The urban poor in Latin America experience the highest prevalence of asthma as they live in poor-quality and overcrowded housing and in neighborhoods with limited or no access to basic services including clean water, sanitation and health-care resources.<sup>31</sup>

## Diarrhoeal diseases

Diarrhoea is the third cause of mortality among children aged 1-59 months in Latin America and the Caribbean.<sup>32</sup> Poor hygiene and lack of access to sanitation, sewerage connections and potable, non-contaminated water have been associated with infant and child mortality, diarrhoeal and parasitic infections and malnutrition.

In Latin America and the Caribbean in 2015, 95 per cent of the regional population had access to improved drinking water

sources—piped household or public water connection—with a breakdown of 97 per cent in urban and 84 per cent in rural populations. Also, improved sanitation facilities, which UNICEF and WHO describe as those that are “likely to ensure hygienic separation of human excreta from human contact,” reached 83 per cent of the population in 2015, with higher access for the urban (88 per cent) than for the rural (64 per cent) population. Figures 12 and 13 below illustrate the breakdown between rural and urban residence for improved water and sanitation facilities across the region.

Inequities in access to drinking water and sanitation services are related to poverty. Results from a 2008 ecological study carried out in 21 Latin American and Caribbean countries found an average of 6 per cent mortality due to acute diarrhoeal diseases in children under age five years, with Costa Rica at 1 per cent and Guatemala at 13 per cent. Higher access to improved drinking water and sanitation were associated with lower mortality in children under one and under five years of age. Even though access to improved drinking water is high in most countries in the region, the quality of the water available is an issue in many countries.

Figure 12. Percentage of the population with access to improved water facilities by urban and rural residence in Latin American and Caribbean countries, 2015

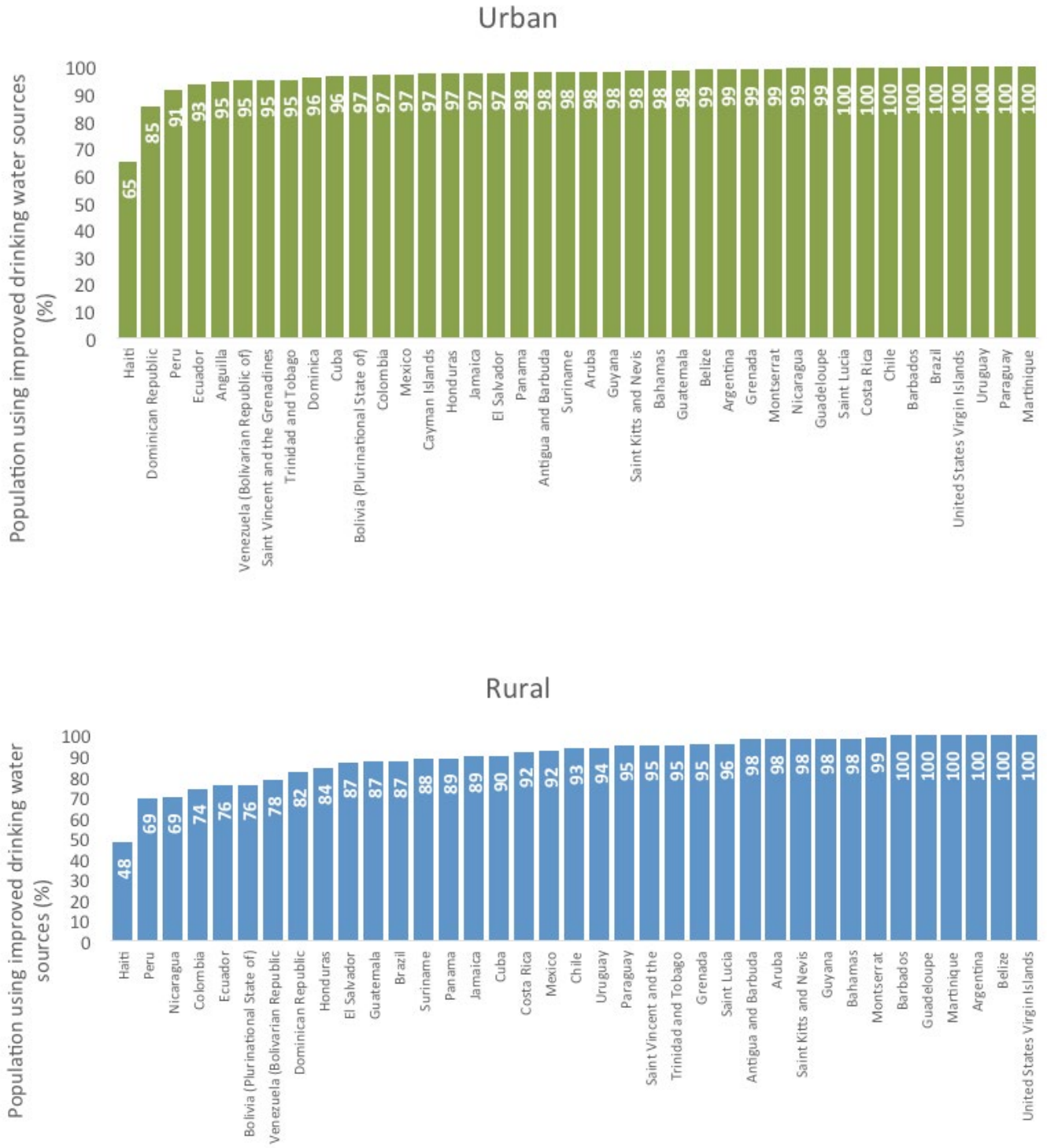
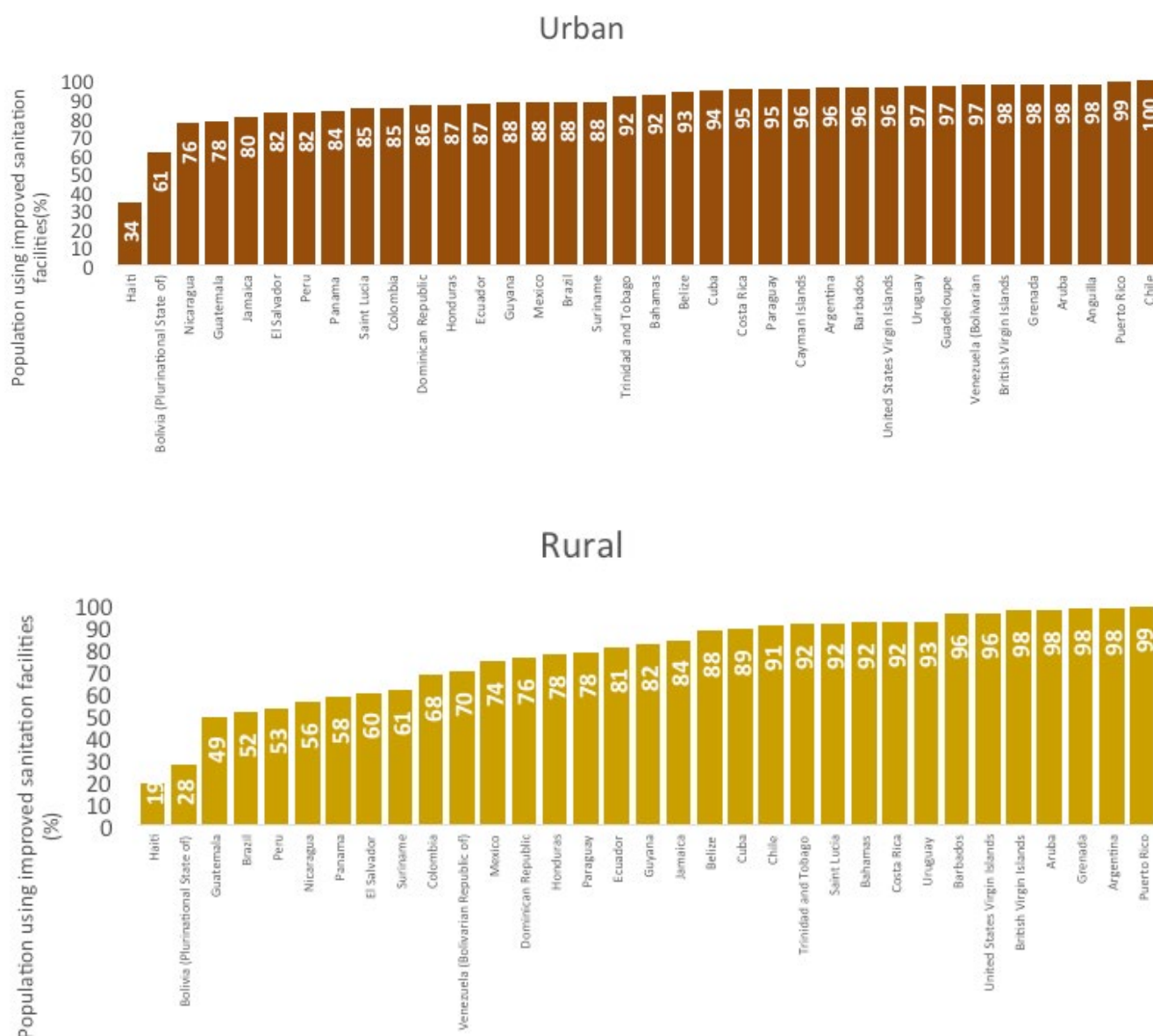


Figure 13. Percentage of the population with access to improved sanitation facilities by urban and rural residence in Latin American and Caribbean countries, 2015



Source: Analysis based on UNICEF, WHO. Progress on Sanitation and Drinking Water – 2015 update and Millennium Development Goal assessment. New York: UNICEF and World Health Organization, 2015.

## Communicable and vector-transmitted diseases

Communicable diseases remain a major public health concern in Latin America and the Caribbean, affecting mainly the poorest sectors of the population. In Haiti, the incidence of tuberculosis is seven times that of the rest of the region and the Caribbean is the second area worldwide most affected by HIV. Latin America is also affected by neglected infectious diseases, which are common infections mostly among the poor. The total burden of neglected infectious diseases in the region may exceed the disease burden posed by malaria or tuberculosis and, according to some estimates, by HIV as well.

Increasing incidence of vector-transmitted diseases is taking a toll in the region. Diseases like dengue, chikungunya and zika are affecting mostly the most deprived populations, which are more likely to be affected by the proliferation of breeding sites of the mosquito due to poor sanitation and extreme poverty. Additionally, when symptomatic for dengue, for example, they may have difficulties receiving timely diagnosis and treatment and, as a result, their condition may progress unabated to more serious stages that may result in death.

## Equity in nutrition

Good nutrition is the bedrock of child survival, health and development. Well-nourished children are better able to grow and learn, to participate in and contribute to their communities, and to be resilient in the face of disease, disasters and other crises. Ensuring good nutrition for children involves preventing, recognizing and treating malnutrition, including micronutrient deficiencies, as well as addressing the growing problem of overweight and obesity among children and young people.

### Breastfeeding

International guidelines for optimal infant and young child feeding practices include initiating breastfeeding within one hour of birth, exclusive breastfeeding for the first six months of life and continued breastfeeding up to the age of two years and beyond, along with feeding of safe, age appropriate foods starting at six months of age. In Latin America and the Caribbean, 49 per cent of newborns start to breastfeed within one hour of birth.

In contrast to indicators for service utilization and health outcomes, overall, women who are poorer, less educated, rural and indigenous initiate breastfeeding earlier and breastfeed for longer durations. Nonetheless, this is not an issue for complacency as some of the available evidence indicates a downward trend in breastfeeding.

Breastfeeding duration and exclusivity in Latin America and the Caribbean for the period 2008-2014 vary due to numerous factors including socioeconomic position, education and geography.

- The lowest prevalence of early initiation of breastfeeding is among the wealthiest women in El Salvador (21 per cent) and Brazil (27 per cent). In El Salvador and Peru, women in the poorest quintile initiate breastfeeding early at twice the prevalence found among the wealthiest: 71 versus 35 per cent in Peru and 42 versus 21 per cent in El Salvador. Although, in most countries, the prevalence of early initiation of breastfeeding is higher among the poorest as compared to the richest, in Colombia it is the opposite: the prevalence of early initiation of breastfeeding is 62 per cent among women in wealthier households as compared to 51 per cent among women poorest households.
- In Bolivia, Dominican Republic, Honduras, Panama and Suriname, the prevalence of early initiation of breastfeeding is higher among women with no education and those with primary education than women with secondary or higher education.
- Both in Guatemala and Panama, the prevalence of early initiation of breastfeeding is higher among indigenous populations than among other groups (60 per cent in Guatemala and 63 per cent in Panama). In Panama, the prevalence of early initiation of breastfeeding among Afro-descendant newborns is 41 per cent, 22 percentage points below the prevalence for indigenous children and 2 percentage points below that for children of other ethnicities.

## Child growth and malnutrition

In Latin America and the Caribbean in 2015, an estimated 3.8 million people were overweight and 1.6 million people underweight, according to WHO. Even as the region stands out for its notable improvement in health and nutrition, malnutrition continues to be a multidimensional issue, with several underlying factors such as poverty and exclusion, which generates significant inequalities between and within countries. For example, undernutrition affects academic performance because of the deficits caused by diseases and the limitations on learning capacity associated with deficient cognitive development. This translates into greater probabilities of late entry into school, repeated grades, high dropout prevalence and low levels of schooling. It was estimated that in 2004, approximately 1 million Central American and Dominican children dropped out of school due to underweight; as a result, malnourished children had two years less schooling than those who did not suffer undernutrition.<sup>33</sup> More recent data have not been found.

Chronic malnutrition or stunting (low height for age), caused mostly by protein-energy malnutrition and anaemia as result of an iron deficiency, is the most common growth deficiency in the region. As shown in figure 14, children in Guatemala, Bolivia, Honduras and Haiti are most seriously affected by malnutrition in the region. Figure 15 illustrates the correlation between poverty, rural residence and low levels of maternal education with the prevalence of stunting in the region.

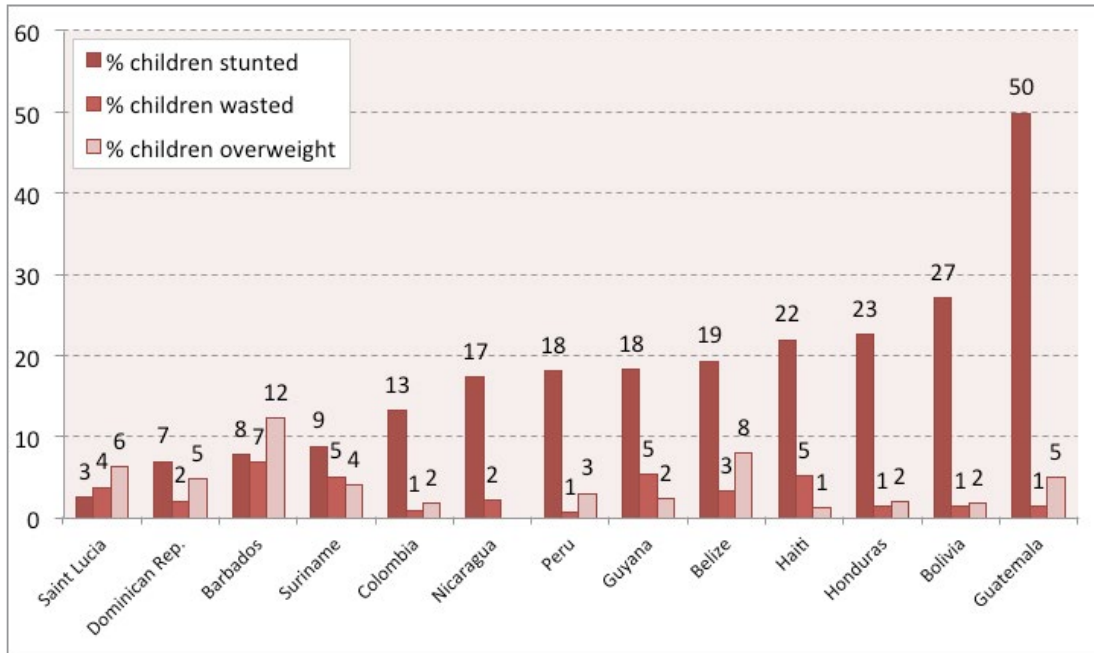
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Figure 14. Guatemala, Bolivia, Honduras, and Haiti bear the brunt of malnutrition in Latin America and the Caribbean

Percentage of children under five years of age who are either stunted (below -2 standard deviation of height for age according to the WHO standard), wasted (low weight for height) or overweight in 13 Latin American and Caribbean countries, 2008-2013



Source: Analysis based on Demographic and Health Surveys, Reproductive Health Surveys, Multiple Indicator Cluster Surveys and other national surveys, 2008-2014.

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For the period 2008-2014, data show that:

- Guatemala has the highest prevalence of stunting in Latin America and the Caribbean and one of the highest in the world. In 2008-2009, it affected 50 per cent of children under five years of age, and there are wide gaps by ethnicity: 66 per cent of indigenous children are stunted versus 36 per cent of non-indigenous children.
- The prevalence of stunting is consistently higher among the poorest children than those of other wealth quintiles. The lower the quintile, the higher the prevalence of stunting. The highest prevalence of stunting is in Guatemala, where 70 per cent of the poorest children are stunted (five times more than among the wealthiest). Other countries with wide gaps between the poorest and the richest in the prevalence of stunting are El Salvador (seven times) and Guatemala, Honduras and Haiti (five times). In Belize, Bolivia, Guyana and Mexico, it is between three and four times higher, and it is at least twice as high in Barbados, Brazil, Colombia, Dominican Republic and Suriname.
- The prevalence of stunting is higher in rural than in urban areas in most countries. In Peru, stunting is four times more prevalent among rural than among urban children.
- The prevalence of stunting is consistently higher among children whose mothers have no education than among

children from mothers with secondary or higher education. The gaps are widest in Guatemala, where 69 per cent of children whose mothers have no education are stunted (49 percentage points higher and three times more than among the most educated), Honduras (38 percentage points and five times more), Peru (36 percentage points and five times more) and Bolivia (30 percentage points and four times more). The gap is three times greater in Belize, Colombia, El Salvador and Haiti.

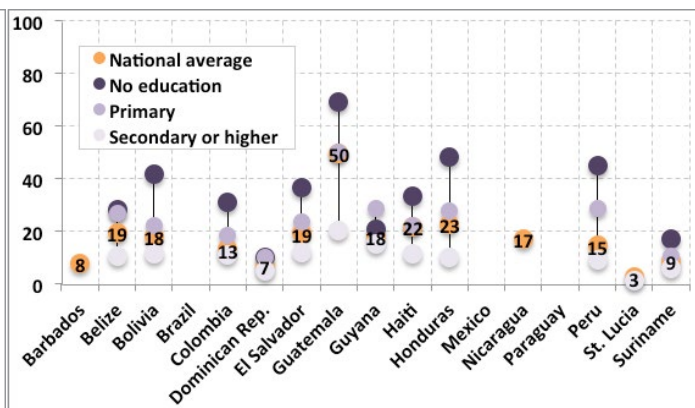
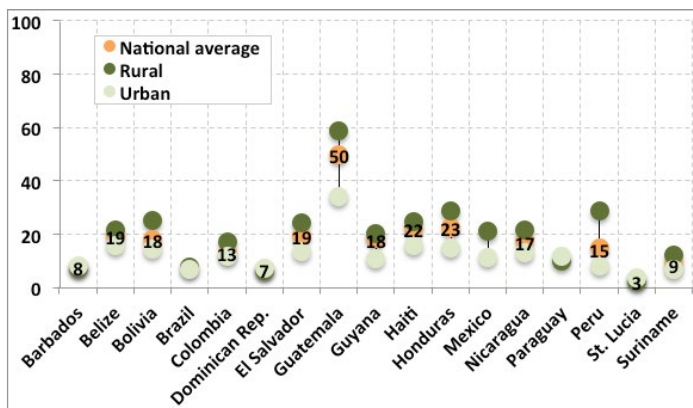
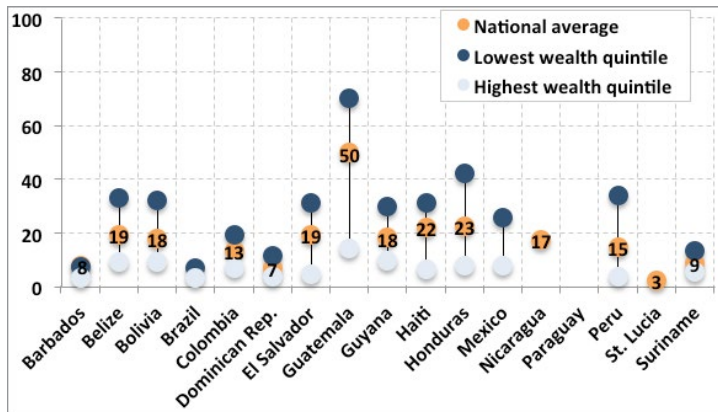
For the period 2008-2014, the highest prevalence of wasting (low weight for height) in the region is among the poorest children in Barbados, with a prevalence of 10 per cent. Of the 14 countries with disaggregated data, the prevalence of wasting is highest among urban children in Barbados, at 8 per cent (twice more than among rural children).

### Overweight and obesity

According to the World Bank, around 20 to 25 per cent of children under age 19 years are overweight or obese in Latin America and the Caribbean. Among children under five years of age, the prevalence of obesity and overweight has rapidly increased in some countries. In the Dominican Republic it more than tripled between 1991 and 2013 (from 2 to 7 per cent) and in El Salvador it doubled between 1993 and 2008 to 3 per cent. In the baseline study for the Salud Mesoamérica

Figure 15. Poverty, rural residence and low level of education are associated with a higher prevalence of stunting in Latin American and Caribbean countries

Percentage of children stunted (below -2 standard deviation of height for age according to the WHO standard) in Latin American and Caribbean countries, by wealth, place of residence and educational attainment of the mother, household surveys 2008-2014.



Source: Analysis based on Demographic and Health Surveys, Reproductive Health Surveys, Multiple Indicator Cluster Surveys and other national surveys, 2008-2014.

2015 Initiative, the prevalence of overweight was 3 per cent in Panama, 5 per cent in Guatemala, 6 per cent in Honduras and El Salvador, 7 per cent in Chiapas, Mexico and 8 per cent in Nicaragua. Overweight and obesity in children are intrinsically interconnected with other forms of malnutrition. A study in Uruguay found that stunted infants had a risk of being overweight almost three times more than children who were not stunted, especially in the context of poverty.

### **Micronutrient deficiencies and anaemia**

The importance of micronutrient supplementation has been widely evidenced. Vitamin A and zinc supplementation in children under age five years reduces the incidence of diarrhoea and iron supplementation in children aged 12 years is associated with lower risk of anaemia and iron deficiency. Evidence from Brazil showed that children from socioeconomically vulnerable populations, such as indigenous communities and those who live in rural settlements and urban slums, are almost three times more likely to be anaemic than the national average. In Latin America, the lowest prevalence of anaemia among children was found in Chile and Costa Rica, while Guatemala, Haiti and Bolivia had the highest prevalence. Inequalities have also been evidenced within countries and across socioeconomic position, area of residence and population groups. Studies conducted in Brazil, Colombia and Peru have found higher prevalence of anaemia among indigenous children than among non-indigenous children. For example, indigenous Guaraní children in Brazil displayed a prevalence of anaemia that is three times higher than that of non-indigenous children in 2008-2009.

Because of its importance, the delivery of vitamin A has been integrated into routine health services and it is commonly distributed as part of the expanded programme on immunization. Even when vitamin A can be available in primary health care settings, access has proved to be unequal in Latin America and the Caribbean. For the period 2008-2014, the prevalence of vitamin A supplementation for children under five years of age ranges from 73 per cent in Honduras to 6 per cent in Peru.

### **Equity in adolescent health**

In 2008, all ministers of health and ministers of education from Latin America and the Caribbean convened in Mexico City to discuss strategies for improving sexual and reproductive health among their adolescent populations. The product of the meeting was the Mexico City Ministerial Declaration, which called for increased implementation of comprehensive sexuality education in schools, strengthening of reproductive health services for adolescents that are youth-friendly and accessible, development of multisectoral strategies to identify and address youth reproductive and sexual health needs, and the creation of mechanisms to report discrimination or low-quality care or sexuality education.

Despite the 2008 Ministerial Declaration and growing prevalence of national sexuality education policies, evidence

suggests that current sexuality education programmes may not be sufficiently reaching adolescents most vulnerable to acquiring HIV or STIs. One such vulnerable population is youth who are not attending school.

### **Early marriage and sexual initiation**

In Latin America, there have been no significant changes in the percentage of women aged 20 to 24 years who were married before the age of 18 years since the early 1980s. A 2012 global study estimated that 18 per cent of adolescent girls in a Latin American study sample were married. Earlier studies had estimated the regional early marriage prevalence at 15-23 per cent in 2004 and at 25 per cent in 2006. Of particular concern, a 2011 regional review cited a marriage prevalence among adolescent girls under the age of 15 years of 12 per cent in Nicaragua and 10 per cent in the Dominican Republic. Evidence suggests that many adolescent girls entering into marriages live in rural settings and belong to lower socioeconomic groups.

Early marriage of adolescent girls is another manifestation of gender inequities that persist throughout Latin America and the Caribbean. Girls in formal and informal unions may have fewer social and economic opportunities, as well as increased risk for negative health outcomes.

More efforts are needed to delay the age of marriage. As the majority of girls entering into early unions are from disadvantaged backgrounds, those efforts will likely require an examination of social and gender inequalities and an expansion of the opportunities available to women in vulnerable situations.

### **Sexual and reproductive health services for adolescents**

Youth-friendly services have not yet been implemented universally throughout Latin America. Evidence suggests that certain vulnerable populations of adolescents may lack access to services that meet their sexual and reproductive health needs. More progress is needed to create and implement youth-friendly sexual and reproductive health services throughout Latin America and the Caribbean. Implementing these services will require a gender and equity perspective to ensure equitable access to care for adolescents of different demographics.

Indigenous adolescents in Bolivia, Guatemala, Ecuador and Nicaragua had a larger unmet need in 2010 for family planning than non-indigenous youth. Studies have found that indigenous adolescents were significantly less likely to receive sexual education in schools, partly due to lower school attendance. This lack of access may stem from widespread discrimination against indigenous persons that permeates health service delivery, lack of cultural appropriateness in sexual and reproductive health services, and cultural norms stigmatizing adolescent sexuality.

## Adolescent pregnancy

Latin America and the Caribbean, where 26 per cent of births in 2010-2015 occurred among adolescent women and girls, has one of the highest concentration of adolescent pregnancies in the world. The adolescent birth rate (the number of births per 1,000 women aged 15 to 19 years) for the period 2009-2014 was 74 per 1,000. Guyana, Dominican Republic, Nicaragua and El Salvador have the highest concentration of adolescent pregnancies.

For the period 2008-2014:

- The widest gaps in the prevalence of adolescent pregnancy are within education groups: adolescent pregnancy is consistently more prevalent among girls with the least education.
- The second widest gaps are within wealth groups: adolescent pregnancy is consistently more prevalent among girls from poorest households in all countries with available data. On the contrary, across all countries, less than 12 per cent of girls from the wealthiest households are pregnant or have had children.
- The prevalence of adolescent pregnancy among indigenous populations has fallen throughout the past decade, but is still generally higher than among non-indigenous women. The prevalence of adolescent pregnancy is five times greater among indigenous girls in Costa Rica (49 per cent among indigenous and 10 per cent among non-indigenous girls) and almost twice as great in Panama (17 per cent among indigenous and 10 per cent among non-indigenous girls).

- According to a 2011 report of the United Nations Population Fund (UNFPA), the prevalence of adolescent pregnancy is higher among Afro-descendant populations in the Latin American and Caribbean region than national averages.

Discussions of adolescent pregnancy in Latin America and the Caribbean require a broader examination of gender equity. Reducing adolescent pregnancy can be seen as a means to reduce the disproportionately high level of poverty affecting women in the region. Policies encouraging general and higher educational attainment, health and socioeconomic equity and equal opportunities will likely contribute to decreasing the prevalence of adolescent pregnancy.

Although every country in the region has expressed commitment to expanding sexuality education for adolescents, existing efforts have failed to sufficiently meet the needs of certain vulnerable adolescent populations. More initiatives are needed to provide comprehensive sexuality education for adolescents who do not attend school, inhabit unstable home environments, belong to indigenous ethnicities, have a non-heteronormative sexual orientation or gender identity and have children. This comprehensive sexuality education should work to address the gender and social inequalities underlying differential reproductive health outcomes among adolescents. Overlooking the needs of vulnerable adolescent populations places those groups at increased risk for suboptimal reproductive health outcomes and perpetuates health inequities between different population groups.

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## Vulnerability, agency and lifestyle

Adolescence is a time of increasing vulnerability, particularly to substance abuse, sexually transmitted diseases including HIV and poor nutrition that can begin a path to lifelong overweight and obesity. Inequities based on income, education, gender or ethnicity can worsen young people's vulnerabilities to these conditions, which may have lifelong consequences for their health and well-being.

### Substance use: alcohol, tobacco and illicit drugs

Throughout the Latin American and Caribbean region, consumption of alcohol, tobacco and drugs remains concentrated among adolescents and young adults. While higher numbers of older adolescents engage in substance use, evidence suggests that more adolescents are trying alcohol, tobacco or drugs at earlier ages.

Use of alcohol, tobacco and drugs is universally higher among adolescent males than adolescent females. Adolescent boys from rural areas have been shown to have a higher level of alcohol and tobacco consumption. Education and socioeconomic position may also affect trends in substance use. One 2006 global study<sup>35</sup> found that adolescents from lower socioeconomic origins were more likely to abuse alcohol. In the same study, drug use was associated with urban poverty in Brazil. Poverty was also found to be a risk factor for substance abuse in Ecuador, Haiti and Brazil. Additionally, tobacco and alcohol use have been associated with lower levels of education among males throughout the region. Youth who report low levels of connection to schools or religious organizations also have higher levels of alcohol consumption and drug use.

Adolescents' home environments significantly influence patterns of alcohol consumption and abuse. Particularly among adolescents living in poverty, youths with parents who abuse alcohol are significantly more likely to abuse alcohol. Alcohol consumption is higher among adolescents who grew up in single parent households, express low levels of connectedness with parents and were subjected to domestic abuse as children.

Smoking tobacco is correlated with parents' smoking patterns, low levels of maternal education, domestic abuse, participation in physical fights, high stress levels and living with a single mother.

As with alcohol and tobacco consumption, illicit drug use is more common among adolescents who live in unstable and single parent homes and who feel disconnected from their parents and communities.

Amidst efforts to reduce substance use, initiatives should work to target not only individual knowledge, but also broader social and economic inequities that permeate adolescents' home environments and affect their autonomy.

## Overweight and overnutrition in adolescence

Undernutrition and obesity have come to coexist in many countries in Latin America and the Caribbean, fostered by the infiltration of high cholesterol diets associated with the increased import of consumer products and a decrease in physical activity associated with rapid urbanization. The numbers of obese and overweight youth have continued to increase rapidly throughout the region. The estimated national prevalence of overweight and obesity in adolescents in the region ranged from 17 to 36 per cent in 2014 and approximately 17 million to 21 million Latin American adolescents were considered overweight or obese. Even within populations traditionally plagued by undernutrition, such as marginalized indigenous populations, the prevalence of overnutrition may be growing. Within a sample of 45 Mbya Guarani indigenous persons from different areas in Argentina, 93 per cent of the participants experienced some form of malnutrition. While 85 per cent of them displayed stunting, 10 per cent were considered overweight.

### Vulnerability and HIV among youth

Throughout the past 15 years, the incidence of HIV infection generally has been declining among youth populations in Latin America and the Caribbean. Between 2001 and 2012, the number of new infections among youths age 15 to 24 years dropped by 15 per cent in Latin America and 55 per cent in the Caribbean. Nevertheless, HIV remains a pressing issue affecting vulnerable youth populations. In 2013, there were an estimated 4,000 adolescents living with HIV in Argentina, 29,000 in Brazil, 7,800 in Colombia, 5,800 in Mexico, 3,600 in Peru, 3,000 in Guatemala and 2,300 in the Dominican Republic, according to household surveys. That same year, adolescents accounted for 7 per cent of the total population with HIV in Haiti, Guyana, Nicaragua and Paraguay. Adolescents also comprised 8 per cent of the population with HIV in Bolivia and 10 per cent in Honduras.

A key factor in the HIV epidemic, condom use remains low among male and female adolescents throughout the region. Between 2009 and 2014, only 20 per cent of adolescent girls in Peru, 40 per cent of girls in the Dominican Republic and 39 per cent of girls in Honduras reported using a condom during the most recent sexual intercourse. Additionally, in 2013, a national survey of Brazilian high school students found that about half of sexually active adolescents had not used a condom during their previous sexual encounter. According to a 2010 survey in Santander, Colombia, 92 per cent of adolescent women in relationships did not regularly use protection against HIV or other STIs.

While regional efforts to expand sexual education in schools have emphasized HIV/AIDS awareness, knowledge of HIV remains incomplete among the region's adolescent boys and girls. According to the most recent estimates from nationally representative household surveys, only 20 per cent of adolescent girls and 24 per cent of adolescent boys in both Bolivia and Guatemala had a comprehensive understanding of HIV. In Haiti, those numbers were 32 per cent and 25 per

cent among adolescent girls and boys respectively, 29 per cent and 33 per cent in Honduras and 29 per cent among adolescent girls in Costa Rica. In areas with higher levels of comprehensive knowledge of HIV, a large divide still persists between adolescents' knowledge of sexual risk and sexual behaviours. For example, in Colombia, although 67 per cent of participants in a 2012 study of sexually active youngsters reported having received information about HIV and STIs, only 33 per cent of the participants had used condoms during their previous sexual encounter.

The HIV epidemic increasingly affects adolescents who are subject to broader gender, social and economic inequalities in the Latin America and Caribbean region. Increasing evidence highlights indigenous youths as a vulnerable population for HIV infection. Successful efforts to curb the prevalence of HIV infection for youth in the region will likely need to address the social inequalities that fuel these vulnerabilities. HIV prevention efforts should work to bridge the divide between adolescents' knowledge of HIV and healthy sexual behaviours and create contexts in which adolescents are able to assume more autonomy in those behaviours.

### **Gender and the HIV epidemic**

Globally, young women aged 15 to 24 years are 50 per cent more likely to acquire HIV than males of the same age group.<sup>36</sup> This pattern is similar with Latin American and Caribbean adolescents, where HIV prevalence and a low level of condom utilization are often concentrated among female adolescents. In Brazil, for example, women aged 15 to 24 years are four to seven times more likely to acquire HIV than their male counterparts. While adolescent men are more likely to be sexually active, adolescent women are least likely to use a condom during sexual relations. These trends have been noted in Nicaragua, Brazil, Mexico, Colombia and Panama.

These trends may reflect broader gender inequalities throughout Latin America and the Caribbean that diminish adolescent women's autonomy in relationships and in negotiating condom use. Whereas adolescent men are encouraged to have multiple sexual partners and forego protection, women are expected to be subordinate to their partners' wishes and adolescent female sexuality is stigmatized in many areas. Consequently, unmarried women may encounter stigma when seeking information or services relevant to HIV prevention

### **Transition from childhood to adolescence for youth with HIV**

Although national and international initiatives have worked to reduce perinatal transmission of HIV, infants continue to be born with HIV throughout Latin America and the Caribbean. In 2014, there were approximately 2,000 new cases of HIV in Latin America and under 5,00 in the Caribbean among children under the age of 15 years, many of these cases resulting from perinatal transmission.<sup>37</sup>

Increased access and adherence to antiretroviral therapy (ART) have allowed more children to survive through adolescence and adulthood. Throughout the past decade, nearly every Latin American and Caribbean country has expanded access to ART for children and adolescents. Even within the past five years, Bolivia has doubled its coverage of ART for children less than 15 years old from 10 per cent in 2011 to 21 per cent in 2014. In the same time period, coverage for that age group increased in Haiti from 18 to 34 per cent, in Nicaragua from 22 to 36 per cent, in Mexico from 44 to 63 per cent and most strikingly, in Colombia from 23 to 60 per cent. Similarly, ART coverage levels for persons over the age of 15 years have also expanded almost unilaterally throughout the region.

Stigma is a key factor that affects the transition to adolescence of children with HIV. While perinatally infected youths frequently are subject to discrimination because of their HIV status, this stigma also reflects broader patterns of social exclusion of adolescents from vulnerable populations. More efforts are needed to ensure equitable access to ART among adolescent populations and to support caregivers in providing the best care possible.

### **LGBT adolescents and discrimination**

Discrimination against lesbian, gay, bisexual and transgender (LGBT) youth is endemic throughout Latin America and the Caribbean and assumes various forms. Primarily, the region's LGBT adolescents may encounter discrimination in school settings. Studies have noted that sexuality education programmes often fail to address sexual orientation and gender identity, and some programmes focus exclusively on adolescent pregnancy among heterosexual girls.

LGBT adolescents may also encounter discrimination within the context of health services. The privacy and confidentiality issues that deter other adolescents from seeking sexual and reproductive health services may be particularly dissuading for LGBT youths. Evidence suggests that health providers in Brazil and Mexico are not familiar with the needs of LGBT adolescents and that providers may actively express homophobic attitudes within clinical settings, thus limiting LGBT adolescents' access to services and sexual and reproductive health information. The issue of provider discrimination may be especially detrimental to transgender adolescents.

Although increasing research has brought to light the issues affecting the region's LGBT youth, discrimination continues to obstruct these adolescents from obtaining optimal mental, physical and sexual health outcomes.

Given the extent to which this discrimination permeates health services, educational settings and social climates—areas that all have a meaningful impact on adolescent health and well-being—there is a pressing need for policies and research to identify the needs of LGBT adolescents and take action to address those needs. To combat discrimination against LGBT adolescents and prevent the inequitable health outcomes

that they experience, it is essential that Latin American and Caribbean societies reexamine gender inequities and work to expand narrow definitions of gender identity.

## **Equity in violence and health**

Violence against children, sexual abuse and gender-based violence take a great toll on the physical and emotional development of children and adolescents and on the health and well-being of pregnant women who are victims of violence by their husbands or partners. Frequently such violence is the result of gender or other inequities.

### **Violence against children with disabilities**

Children with disabilities who live in poverty may be subjected to severe social, economic and political exclusion and they may face barriers to accessing health care, employment and educational opportunities. More research and attention are needed to investigate and mitigate the numerous inequalities facing these populations.

In Latin America and the Caribbean, along with the prevalence of poverty, there are links with violence and maltreatment among children with disabilities that can take the form of discrimination, social exclusion and stigma.

### **Sexual abuse**

Studies have associated living in poverty, being female, having low levels of education or poor academic performance, low self-esteem, multiple sexual partners and tobacco or alcohol use with greater likelihood of experiencing sexual violence among adolescents.

Evidence has suggested that mental health disorders may be concentrated among female adolescents from poorer socioeconomic backgrounds, indigenous or other minority ethnicities, and those with low levels of education and those living in areas with high levels of violence or limited opportunities for employment.

Sexual abuse is both the product of gender inequity and a primary driver of gendered inequalities in reproductive and mental health outcomes. More research and programmatic initiatives are needed to mitigate the widespread abuse of adolescents and expand services for youth who have already experienced sexual abuse. Such programmes will be critical for the success of achieving gender equity within Latin American and Caribbean countries.

Studies have documented a high prevalence of sexual violence committed against indigenous adolescent women, as well as gender norms that reduce women's autonomy in negotiating condom use in relationships.

### **Intimate partner violence during pregnancy**

Across the globe, 30 per cent of all women who have ever been in a relationship have experienced physical and/or sexual violence by their partner. Among adolescents aged 15 to 19 years worldwide, approximately one third of girls have experienced emotional, sexual or physical violence from their partners or spouses. The prevalence of intimate partner violence varies across countries. A comparative analysis of population-based surveys from 12 countries in the region found that, in all of them, between one fourth and one half of women who had ever been married or in union reported having experienced ever physical or sexual violence by an intimate partner, from 54 per cent in Bolivia in 2003 to 17 per cent in the Dominican Republic in 2007.

Although there are no clear patterns across countries, violence during pregnancy tends to occur more frequently among the poorest, urban, least educated and those employed for cash.

### **Discrimination and mistreatment in health facilities**

Documented widespread provider discrimination and violence are chief barriers that prevent women from ethnic minorities from accessing quality health services in Latin America and the Caribbean.

Particularly in rural areas, women report long wait times for consultations and test results, delays in receiving test results, inaccuracy of test results or mismanagement of data, shame in exposing private areas of the body to male providers, condescension and uncompassionate behaviour from medical providers, and lack of culturally appropriate behaviour from medical providers for women of indigenous ethnicities.

The effects of provider discrimination directly compromise access to treatment, as it can become a key factor that deters women from ethnic minorities from seeking medical care and may obstruct the development or implementation of policies promoting indigenous rights.

### **Urban violence**

With thousands of persons affected by violence each year, this is a public health issue that deserves urgent attention. Violence in Latin American and Caribbean cities is largely the product of social and economic inequalities that divide urban areas. Consequently, efforts to mitigate urban violence should consider inequalities in the distribution of wealth, labour opportunities and quality housing—all divisions that are becoming increasingly apparent through the spatial fragmentation of cities.

Various studies indicate that Afro-descendants are more likely to be victims of homicide and other violent crimes in urban areas of Brazil.

# A Promise Renewed for the Americas: A Call to Action

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# A PROMISE RENEWED FOR THE AMERICAS: A CALL TO ACTION

The main findings of the *Health Equity Report 2016: Analysis of Reproductive, Maternal, Newborn, Child and Adolescent Health Inequities in Latin America and the Caribbean to Inform Policymaking* highlight the factors that must be addressed if we are to keep the promise to reduce the profound inequities in reproductive, maternal, neonatal, child, and adolescent health that persist in Latin America and the Caribbean.

- Most of the differences found in neonatal, infant and under-five mortality are related to key socioeconomic characteristics such as household's wealth and mother's education.
- The household's wealth, place of residence and mother's education are all associated with differences in utilization of health services along the maternal and child continuum of care and with poorer nutritional status among children.
- Latin America and the Caribbean has the highest concentration of adolescent pregnancies in the world, most frequently affecting uneducated girls, the girls who live in the poorest households as well as indigenous women.
- Indigenous and Afro-descendant women and their children present worse health outcomes and have lower utilization of health care. In addition to generalized social exclusion, increasing evidence points to the association of mistreatment in health care settings for these groups.

The *Health Equity Report 2016's* review and analysis of existing data indicate that the measuring and monitoring of health inequalities and inequities in Latin America and the Caribbean still require improvement. Accordingly, based on the experience of developing this report, we recommend strategies through which policymakers and researchers may assess health equity in the future:

- *Comprehensive health indicators.* Traditional indicators have focused on broader impacts exclusively and often have overlooked potential indicators that lead to those impacts. Data concerning processes, outputs and outcomes will contribute valuable information about the factors driving health inequalities and inequities and the best social policies to tackle those causes.
- *Relevant stratifiers.* While general social characteristics such as wealth, place of residence, level of education, sex of the child and ethnicity are indeed critical to understanding health inequalities in Latin American and Caribbean countries, it is also important to develop and field-test relevant stratifiers for specific topics that may serve to enrich the comprehension of inequality patterns within those themes. For example, marital status and age can constitute key stratifiers when examining access to contraception, as they may affect discrimination to seeking services or other barriers to access.

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- *Reliable and comparable data sources.* The inconsistent availability of timely, reliable and comparable data is one of the region's principal challenges in assessing health equity. While censuses and household surveys are expensive to develop, vital registration systems, institution-based records and surveillance systems also frequently lack accuracy or comparability in their data. Strengthening, modifying or expanding existing data sources may be a feasible option to improve the availability of data in the region.
- *Mixed measures.* Simple and complex measures of inequalities have been developed and used to measure different health inequalities. While simple measures are straightforward and easy to interpret, they do not account for inequalities among more than just two subgroups and they discount population size and population shifts. Because of the vast availability of options and the particular characteristics of each health indicator, a detailed analysis should be developed in order to suggest relevant measures for each indicator and stratifier.

To work towards accomplishing equity in maternal, reproductive, neonatal, child and adolescent health throughout Latin America and the Caribbean, three central themes require further attention. Primarily, for almost every topic included in the *Health Equity Report 2016*, the authors discovered a need for more equity-focused research. While numerous international reports and scholarly articles highlight important themes such as maternal and child health, only some of these publications incorporate an equity perspective in their discussions. Furthermore, for various topics such as caesarean sections and postnatal care, equity research remains concentrated in only certain countries, most frequently Brazil. Increased research is therefore crucial not only to fortify and expand existing health equity data, but also to document how the social, structural and economic barriers driving those inequities change over time. From community-level qualitative studies to broader population surveys to national statistical reviews, more research is needed to understand the dynamics of health inequities and drive the change necessary to address the causes from the root.

Health inequities affecting indigenous and Afro-descendant populations is another key theme that merits particular attention. Nearly every section of the *Health Equity Report 2016* highlights women and children of minority ethnicities as populations facing social and economic exclusion in their societies. Nevertheless, national and international data collection systems frequently have overlooked these minority populations and relevant quantitative data generally are lacking. Both additional quantitative and qualitative information will be vital to developing, implementing and evaluating interventions that serve ethnic minority populations. National efforts should recognize indigenous groups as a distinct vulnerable population and obtain data that are comparable with other population groups.

Finally, the *Health Equity Report 2016* has sought to identify areas in which policymakers and regional leaders may prioritize equity in maternal, reproductive, neonatal, child and adolescent health. Along with these areas of prioritization, more research and documentation will be needed to assess how these strategies can be most effective, especially considering that the literature and data reviews covered in this report uncovered minimal information that addressed best practices or specific strategies to achieve health equity. These areas in need of further research are applicable to every chapter of the report.

The achievement of health equity in Latin America and the Caribbean will require a consistent process of change, in which policymakers and other officials prioritize the health needs of vulnerable populations and reduce the social and economic inequalities fueling inequities. *The Health Equity Report 2016* marks the beginning of this process by pinpointing specific areas in which health inequities can be addressed. Now, the report's results must be followed by action that should entail at least three steps.

#### **Advocacy for and by women, children and adolescents.**

The first step to improving the health of the region's women and children will be the advocacy of health equity to key stakeholders such as Governments, donors, non-governmental organizations, research institutions, civil society associations and leaders of target populations. As part of advocacy efforts, the *Health Equity Report 2016* should be disseminated to all of these stakeholders and be used to spark discussions on equity within and between these groups. All discussion and advocacy initiatives should strive to be inclusive processes that incorporate the voices and perspectives of populations suffering inequities. Advocacy for health equity necessitates creating awareness of social inequalities, and the reduction of social inequalities cannot happen if disadvantaged populations are excluded from participating in social or health movements.

**Measuring and monitoring.** Other areas for action will include the establishment and collection of standard methods that incorporate the strategies proposed in the first section of this chapter to measure and monitor health inequity. To accomplish these actions, national and international organizations can play a chief role in promoting the use of comprehensive health equity indicators, incorporating these indicators into censuses and household surveys and ensuring consistent data collection. With the technical and financial support of international organizations, countries can also conduct investigations to understand the dynamics of inequity specific to their respective populations and gauge which populations have not benefited from policies that expand access to health-care coverage. Additionally, research institutions can play a key role in collecting relevant qualitative data to understand the mechanisms underlying statistical data. All of these strategies will not only provide a more complete explanation of the inequalities affecting various countries and regions, but will also enable policymakers and health leaders to tailor initiatives to the needs of their target populations and provide a baseline for assessing the success of those initiatives.

**Multisectoral strategies.** Finally, multisector strategies have the potential to make a powerful impact in mitigating health inequities throughout Latin America and the Caribbean. Health, environment, education, industry and energy sectors throughout the region are interconnected and often directly affect each other. Similarly, health inequity results not only from health issues, but also from social, environmental, economic and educational factors. Consequently, after reviewing the findings of this report and other future studies, different sectors can collaborate to approach the drivers of health inequities in synergy from different angles. Such collaborative initiatives will be particularly important, given that many of the health inequities discussed in this report stem from deeply rooted social inequalities. The broader inclusion of different sectors and perspectives can catalyse broader improvements in social equality throughout the countries of Latin America and the Caribbean.

These processes provide a general guideline of actions to improve equity in reproductive, maternal, neonatal, child and adolescent health. All of the processes seek not only to improve equity in health outcomes, but also to contribute to the reduction of social and economic inequalities that fuel

those inequities. Again, the achievement of health equity will ultimately require overarching structural changes that promote social, economic and political equality. However, there are concrete steps and specific populations, as explained in the *Health Equity Report 2016*, that policymakers can prioritize to work towards achieving equity in the fields of reproductive, maternal, neonatal, child and adolescent health.

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## Annex. Key indicators included in the health equity analyses

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# ANNEX. KEY INDICATORS INCLUDED IN THE HEALTH EQUITY ANALYSES

<b>Reproductive health</b>	<p><b>1. Unmet need for contraception</b> Women aged 15-49 years with an unmet need for contraception (for spacing and limiting) (%)</p>
<b>Maternal health</b>	<p><b>2. Antenatal care (at least four visits by any provider)</b> Women aged 15-49 years with a live birth in the last 2-5 years with at least four antenatal visits by any provider (%)</p> <p><b>3. Skilled attendance at birth</b> Live births in the last 2-5 years attended by skilled birth attendants (%)</p> <p><b>4. Deliveries by caesarian section</b> Live births in the 2-5 years preceding the survey delivered by caesarean section (%)</p>
<b>Neonatal health</b>	<p><b>5. Perinatal mortality rate</b> Perinatal mortality rate for the five-year period preceding the survey, defined as the sum of the stillbirths and early neonatal deaths per 1,000 pregnancies</p> <p><b>6. Neonatal mortality rate</b> Neonatal mortality rate (neonatal deaths per 1,000 live births)</p> <p><b>7. Infants weighed at birth</b> Most recent live births in the last two years who were weighed at birth per total number of most recent live births in the last two years (%)</p> <p><b>8. Early initiation of breastfeeding</b> Last-born children in the two years preceding the survey who started breastfeeding within one hour of birth (%)</p> <p><b>9. Birth registration</b> Children aged 0-4 years whose births are reported registered (%)</p> <p><b>10. Postnatal care check-ups for newborns</b> Last children born in the two years preceding the survey who had their first postnatal checkup within the first two days after birth (%)</p>
<b>Child health</b>	<p><b>11. Infant mortality rate</b> Deaths among children under 1 year of age per 1,000 live births</p> <p><b>12. Under-five mortality rate</b> Deaths among children under 5 years of age per 1,000 live births</p> <p><b>13. Stunting</b> Children stunted (below -2 standard deviation of height for age according to the WHO standard)(%)</p> <p><b>14. Wasting</b> Children wasted (below -2 standard deviation of weight for height according to the WHO standard)(%)</p> <p><b>15. Overweight</b> Children overweight (above +2 standard deviation of weight for age according to the WHO standard)(%)</p> <p><b>16. Vitamin A supplementation</b> Children aged 6-59 months who received vitamin A supplements in the six months preceding the survey(%)</p> <p><b>17. BCG vaccine</b> Children aged 12-23 months who had received BCG vaccination (%)</p> <p><b>18. DPT3 vaccine</b> Children aged 12-23 months who had received DPT3 vaccination (%)</p> <p><b>19. Measles vaccine</b> Children aged 12-23 months who had received measles vaccination (%)</p> <p><b>20. Diarrhoea treatment with oral rehydration salts (ORS)</b> Children born in the three or five years preceding the survey with diarrhoea in the two weeks preceding the survey who received ORS (%)</p> <p><b>21. Care-seeking for symptoms of pneumonia</b> Children born in the three or five years preceding the survey with symptoms of pneumonia taken to a health facility(%)</p>
<b>Adolescent health</b>	<p><b>22. Early childbearing</b> Women aged 15-19 years who have begun childbearing (%)</p>
<b>Violence</b>	<p><b>23. Violence during pregnancy</b> Women who experienced violence during pregnancy (%)</p>

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