COMMITTING TO CHILD SURVIVAL
A PROMISE RENEWED

Committing to Child Survival: A Promise Renewed

Progress Report 2014

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Renewing the Promise — in every country, for every child

Committing to Child Survival: A Promise Renewed

Progress Report 2014

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Committing to Child Survival: A Promise Renewed — A global movement to end preventable child and maternal deaths

OVERVIEW

Committing to Child Survival: A Promise Renewed is a global movement to end preventable child deaths by accelerating progress on maternal, newborn and child survival. In support of the United Nations Secretary-General's 'Every Woman Every Child' strategy, *A Promise Renewed* brings together public, private and civil society actors committed to advocacy and action for women, newborns and children.

BACKGROUND

Two years ago, in June 2012, the Governments of Ethiopia, India and the United States of America convened the Child Survival Call to Action in Washington, D.C. This high-level forum brought together over 700 representatives from government, civil society and the private sector to rejuvenate the global child survival movement.

What emerged from the Call to Action was a rejuvenated determination to scale-up progress by building on the success of the many partnerships, structures and interventions that exist within and beyond the field of health.

Since the *Child Survival Call to Action*, over 178 governments, as well as hundreds of civil society and faith based organizations, have signed a pledge, vowing to do everything possible to stop women and children from dying of causes that are easily avoidable. We now call this commitment *A Promise Renewed*.

ACCELERATING PROGRESS ON MDG 4 AND SUSTAINING THE MOMENTUM BEYOND 2015

A Promise Renewed promotes two goals. The first is to keep the promise of Millennium Development Goal (MDG) 4 — to reduce the under-five mortality rate by two-thirds, between 1990 and 2015 — and by accelerating maternal survival, addressed in MDG 5.

The second goal is to keep moving forward, beyond 2015, until no child or mother dies from preventable causes. A modelling exercise presented at the Child Survival Call to Action in June 2012 demonstrated that countries can lower their national under-five mortality rates to 20 or fewer deaths per 1,000 live births by 2035.[1] Achieving 20 by 2035 represents an important milestone towards the ultimate goal of ending preventable child deaths.

Reaching this goal is both ambitious and attainable. The world has the knowledge, the strategies, and the resources. The partners that support *A Promise Renewed* have jointly commit to five priority actions:

1. Increase efforts in the 25 countries that account for 80 per cent of under-five deaths
2. Scale-up access to underserved populations everywhere
3. Address the leading causes of under-five mortality worldwide, which account for nearly 60 per cent of all under-five deaths (preterm birth complications, pneumonia, intrapartum-related complications, diarrhoea and malaria)
4. Increase the emphasis on the underlying causes of child mortality, such as women's education and empowerment
5. Rally around a shared goal and use common metrics to track progress.

A growing number of countries are taking action and implementing these strategic shifts within national strategies for maternal, newborn and child survival. From Bangladesh to Malawi, Zambia to Uganda, Ghana to India, governments are acting on the promise of MDGs 4 and 5 by sharpening national plans, in line with the five priority actions, setting costed targets, and mobilizing civil society, the private sector and individual citizens around the goals of *A Promise Renewed*.

CHILD SURVIVAL CALL to ACTION

ANNUAL REPORTS

In support of *A Promise Renewed*, UNICEF is publishing yearly reports on child survival to track progress, promote accountability for global commitments made to children, and help sustain political commitment. This year's report, released in conjunction with the child mortality estimates of the United Nations Inter-agency Group for Child Mortality Estimation, presents:

- Levels and trends in under-five and neonatal mortality since 1990
- Analysis of progress towards Millennium Development Goal 4
- Causes of neonatal and child deaths
- Coverage of key interventions for mother and newborn
- Highlights of national and global initiatives by governments, civil society and the private sector to accelerate progress on child survival
- Statistical tables of child mortality, causes of under-five and neonatal deaths and key indicators of intervention coverage by country and regions

For further information on A Promise Renewed, visit www.apromiserenewed.org

1| Executive Summary

Executive Summary
Committing to Child Survival: A Promise Renewed 2014 Progress Report

The promise: In 2000, the world made a promise to children: to reduce by two-thirds between 1990 and 2015, the under-five mortality rate. In June 2012, world leaders renewed the promise during the global launch of Committing to Child Survival: A Promise Renewed. Since then, nearly 180 governments have pledged to scale up efforts to accelerate declines in preventable maternal, newborn and child deaths.

AN OVERVIEW OF CHILD SURVIVAL: GOOD NEWS AND BAD

- **Globally, major progress has been made in improving child survival. The under-five mortality rate has declined by almost half since 1990,** dropping from 90 to 46 deaths per 1,000 live births in 2013. The absolute number of under-five deaths was cut in half during the same period, from 12.7 million to 6.3 million, saving 17,000 lives every day.

- **The under-five mortality is falling faster than at any other time during the past two decades.** Globally, the annual rate of reduction has more than tripled since the early 1990s. Eastern and Southern Africa currently has highest annual rate of reduction in the world with the exception of East Asia and the Pacific. Thanks to this accelerated progress, almost 100 million children under age 5 have been saved over the past two decades – including 24 million newborns. These are babies who would have died had mortality remained at 1990 rates.

- **Under-five mortality is falling among the poorest children in all regions.** Moreover, greater absolute declines have been made among the poorest households than among the richest in all regions. Between 1990 and 2010, the gap between the richest and poorest households fell in all regions except sub-Saharan Africa. However, substantial disparities remain in all regions.

- **But despite these advances, the toll of under-five deaths over the past two decades is staggering:** between 1990 and 2013, 223 million children worldwide died before their fifth birthday.

- **Progress is insufficient to meet MDG 4.** If current trends continue in all countries, the target will only be reached globally by 2026, 11 years behind schedule.

- **Sub-Saharan Africa and South Asia, together account for 4 out of 5 under-five deaths globally.** Sub-Saharan Africa continues to shoulder the greatest burden: 1 in 11 children born there still die before age 5, nearly 15 times the average in high-income countries (1 in 159). The recent momentum achieved in Sub-Saharan Africa needs to be sustained and accelerated.

- **Although child deaths from leading infectious diseases have declined significantly, pneumonia, diarrhoea and malaria are still the main killers of children.** In 2013, pneumonia, diarrhoea and malaria make up about one third of all under five deaths. **Importantly, neonatal deaths account for 44% of all under-five deaths.**

THE FIRST MONTH OF LIFE: THE MOST VULNERABLE PERIOD

- **The first 28 days of life – the neonatal period – is the most vulnerable time for a child's survival. In order to continue to accelerate progress in under-five mortality focusing on newborns is critical.**

- **The good news is that neonatal mortality is declining globally.** The worldwide neonatal mortality rate fell by 40 per cent between 1990 and 2013 — from 33 to 20 deaths per 1,000 live births.

- **The lives of 24 million newborns have been saved since 1990.** Yet despite the availability of effective, proven strategies to prevent newborn deaths, **2.8 million babies still died in the first month of life** in 2013, largely of preventable causes. Neonatal health must be prioritized to sustain the rapid progress on overall child mortality.

- **Mortality during the neonatal period is falling slower than during other age groups.** As a result, the proportion of under-five deaths during the neonatal period has increased in every region. Globally, it increased from 37 to 44 per cent between 1990 and 2013.

- **For 1 million babies every year, their day of birth is also their day of death, accounting for more than a third of neonatal deaths. Close to 2 million newborns die in the first week of life.** Investments in maternal care, specifically labour and delivery care and other high-impact interventions focused on the 24 hours around the time of birth, hold the greatest potential for reducing neonatal mortality.

- **Many deaths in the first month of life result from diseases and conditions that are readily preventable or treatable with proven, cost-effective interventions.** Globally, preterm birth complications and complications during labour and delivery (intrapartum-related complications) account for nearly 60 per cent of neonatal deaths. The focus clearly needs to be on preventing these deaths by providing high-quality care for both the mother and the baby around the time of birth.

- **Educating women is crucial for reducing neonatal mortality.** Neonatal mortality rates of babies born to mothers with no education are nearly twice as high as those babies born to mothers with secondary education or higher. The family's wealth and geographic location (urban/rural) also remain powerful determinants of inequities in neonatal mortality.

- **Some newborns are particularly vulnerable — those born to the youngest and oldest mothers, as well as mothers living in rural areas. Children born shortly after another sibling are also at greater risk of dying than those born after longer intervals between births.** Therefore, ending child marriage, reducing adolescent pregnancy and extending birth intervals are crucial to reducing the risk of newborn mortality.

THE PROMISE: REACHING EVERY NEWBORN WITH QUALITY CARE

- **Too many mothers and newborns miss out on key interventions that can save their lives.** Pregnant mothers and their babies require access to high-quality services along a continuum of care from pregnancy through childbirth and the postnatal period. There is substantial variation in access to and use of these services and in the quality of care provided across countries.

- **Newborns are most vulnerable during the first hours and days of life, yet this critical window of opportunity is being missed.**

  - Evidence shows that initiating breastfeeding within one hour of birth reduces the risk of neonatal death by 44 per cent. Yet fewer than half of newborn babies (43 per cent) worldwide receive the benefits of immediate breastfeeding.

  - **In the regions with the highest neonatal mortality rates, access to postnatal care is abysmally low.** In the majority of countries with data in sub-Saharan African and South Asia, fewer than half of mothers and babies receive a postnatal health check.

- **Complications during labour and delivery are responsible for approximately a quarter of all neonatal deaths worldwide.** Yet in 2012, one in three babies — an estimated 44 million — entered the world without the help of a skilled health care provider, putting them at even greater risk during this most vulnerable time.

- **Coverage of key maternal and newborn interventions is too low.**

  - Only about half of women worldwide receive the recommended minimum of four antenatal care visits. Global progress has been modest since 1990, increasing on average only by 15 percentage points, from 37 to 52 per cent of women.

  - One third of women globally deliver their baby without the help of a doctor, nurse or midwife. The global rate of women delivering with skilled attendance has risen by a mere 12 percentage points since 1990– from 57 to 69 per cent.

- **Quality care is grossly lacking even for babies and mothers who have contact with the health system.**

  - A 10 countries analysis suggests that **less than 10 per cent** of mothers who saw a skilled provider during pregnancy received a set of eight key interventions.

  - Similarly, **less than 10 per cent** of babies who were delivered by a skilled health professional went on to receive seven needed interventions, including early initiation of breastfeeding and postnatal care.

- **In the least developed countries, women in the richest households are almost three times as likely to give birth with a skilled attendant as women in the poorest.** The poorest are worst off in the countries with the lowest coverage. Not only are poor mothers and babies less likely to have contact with the health system, but when they do they are less likely to receive high-quality care.

- **Globally, only 59 per cent of children under age 1 have had their birth registered at birth. In the high-mortality regions of South Asia and sub-Saharan Africa, only about one third of infants are registered.** Children must be registered at birth if they are to have assured access to services, such as to health care and education.

- **Better data are needed to help guide programmes.** Although information on use of basic services increased greatly over the past decade, more effort is needed to understand the quality of care available to women across the continuum of pregnancy, delivery and the postnatal period. Expanding the availability and quality of population and health facility data must include a concerted effort to register every newborn and count the deaths of every mother and newborn, including stillbirths.

GLOBAL COMMITMENT AND PRIORITIES FOR ACTION

- Since the global launch of *A Promise Renewed* in June 2012, **nearly 180 governments** have pledged to scale up efforts to accelerate declines in preventable maternal, newborn and child deaths.

- Under the banner of *A Promise Renewed*, nearly 20 of these are turning their pledges into practical action by sharpening national strategies for reproductive, maternal, newborn and child health, setting costed targets and monitoring progress. More countries need to do the same. By scaling up progress for women and children, governments are positioning countries to close the gap on MDG 4 and sustain the progress well after 2015.
- With millions of women and children still at risk of dying of preventable causes, maternal, newborn and child survival must remain at the heart of the post-2015 global development agenda. The world cannot abandon its promise to women and children.

- Now is the time to scale-up progress. **The Every Newborn Action Plan** represents a global consensus on the actions that need to be taken to scale up progress on newborn survival.

  The world has the knowledge and solutions to save ever more women, newborns and children from dying of causes that are easily avoidable.

1| The global landscape of child survival

1 | The global landscape of child survival

FULFILLING THE PROMISE MADE TO THE WORLD'S CHILDREN

In 2000, the world made a promise: to reduce the under-five mortality rate by two thirds by 2015 compared to 1990, the benchmark year for the Millennium Development Goals (MDGs). Two years ago, the world renewed its commitment to accelerate declines in preventable maternal, newborn and child mortality. Under the banner of *Committing to Child Survival: A Promise Renewed*, nearly 180 governments around the world pledged to do everything possible to stop women and children from dying of preventable causes.

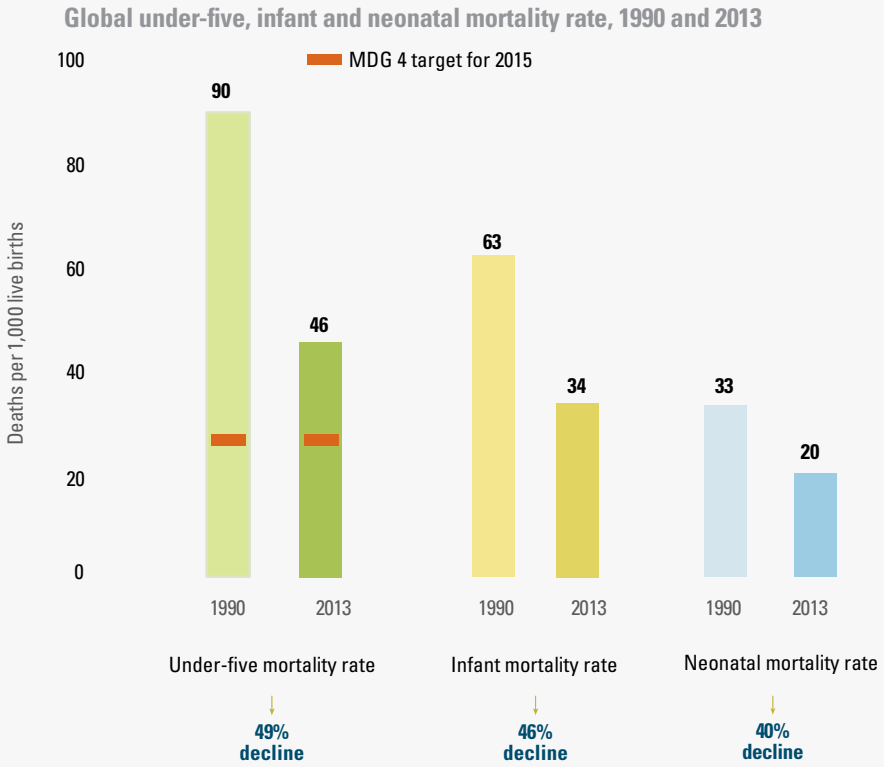
This annual report, produced by UNICEF, tracks the world's progress in fulfilling the promise of MDG 4 and sustaining the progress beyond 2015.

The global child survival landscape remains uneven, with steady gains in some areas, and persistent gaps in others. The latest data[1] show that more children are living to celebrate their fifth birthday. Between 2005 and 2013, the rate of reduction in under-five mortality more than tripled compared to 1990-1995. However, the global advance in child survival continues to elude many of the world's youngest and most vulnerable children. Of the 6.3 million children who died before age 5 in 2013, 16 per cent took their first and final breath on the day they were born. Altogether, 44 per cent died during the first 28 days of life. In 2013 the world suffered the loss of 2.8 million newborn babies. These staggering statistics are all the more tragic given that low-cost, evidence-based solutions are increasingly available, even in some of the most remote places.

UNDER-FIVE MORTALITY: LEVELS AND TRENDS

The dramatic decline in preventable child deaths over the past quarter of a century is one of the most significant achievements in human history. Since 1990, the global under-five mortality rate has declined by nearly half (49 per cent), from 90 deaths per 1,000 live births to 46 deaths in 2013 (figure 1). Over the same period, the neonatal mortality rate (the probability of dying in the first 28 days after birth) has been reduced by 40 per cent, from 33 deaths per 1,000 live births to 20.

FIG. 1 **The global under-five mortality rate fell by almost half**



Note: No MDG targets were set for infant and neonatal mortality.

Source: United Nations Inter-agency Group for Child Mortality Estimation (UN IGME) 2014.

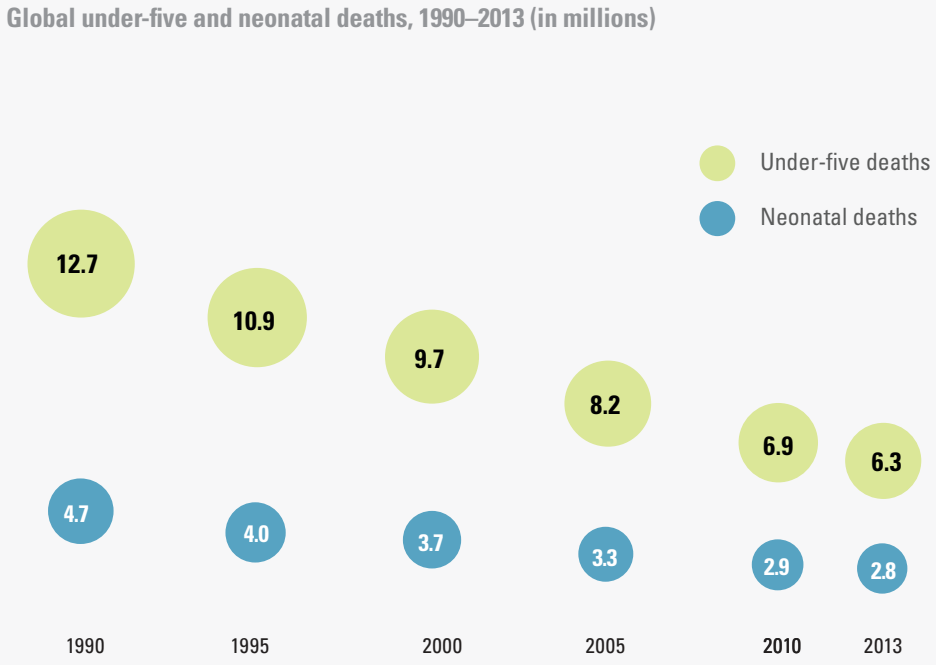
The progress is especially dramatic when viewed in terms of the decline in the number of under-five deaths (figure 2). In 1990, 12.7 million children under age five died. In 2013 by contrast, that number fell to 6.3 million, a reduction of about 50 per cent. In other words, about 17,000 children under 5 died every day in 2013 – 17,000 fewer than in 1990.

The global progress in reducing newborn deaths is almost as striking. Between 1990 and 2013, the number of newborn babies who died within the first 28 days of life declined from 4.7 million to 2.8 million.

Thanks to the accelerated progress in reducing child mortality, the world saved almost 100 million children – among them, 24 million newborns – who would have died had mortality remained at 1990 rates.

While important, these gains do not afford complacency. Despite the advances, the toll of under-five deaths over the past two decades is staggering: between 1990 and 2013, 223 million children worldwide died before their fifth birthday.

FIG. 2 **The number of under-five deaths is falling steadily**

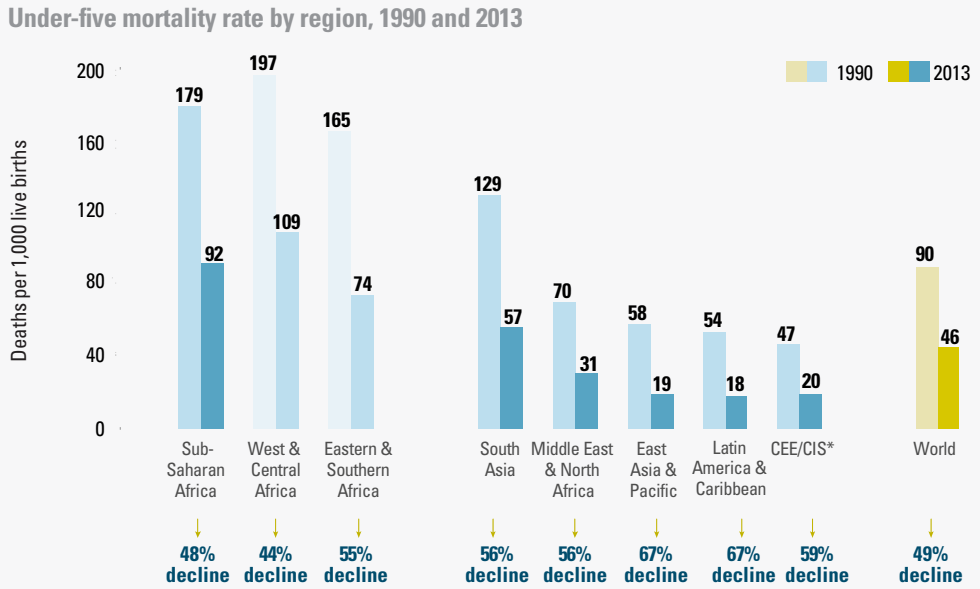


Source: UN IGME 2014.

Regional progress

Since 1990, every region has lowered its under-five mortality rate by at least 44 per cent (figure 3). However, the pace and scale of regional progress varies. The two best-performing regions, East Asia and the Pacific and Latin America and the Caribbean, reduced regional under-five mortality rates by more than two thirds since 1990. The region with the highest rate of child mortality, sub-Saharan Africa, also recorded major gains, lowering the under-five mortality rate by 48 per cent.

FIG. 3 **Under-five mortality is declining in all regions**

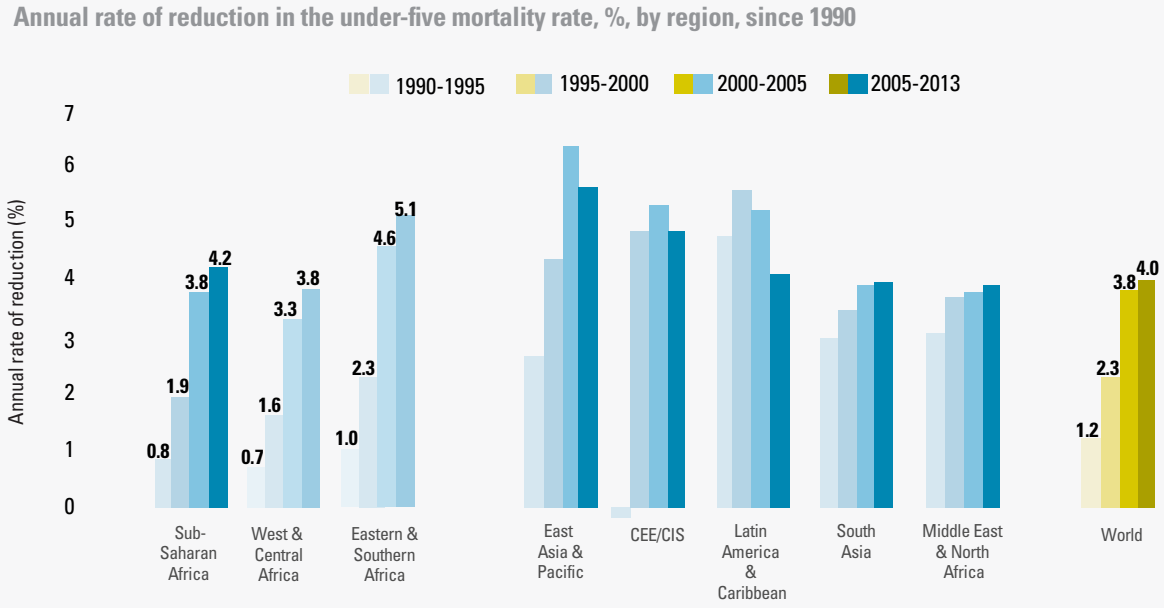


Note: All regional estimates refer to UNICEF's regional classification. Sub-Saharan Africa includes West & Central Africa, Eastern & Southern Africa, Djibouti and Sudan. For further details on this classification please refer to http://data.unicef.org/index.php?section=regional-classifications.

*Central and Eastern Europe and the Commonwealth of Independent States

Source: UN IGME 2014.

FIG. 4 **Sub-Saharan Africa continues to accelerate declines in under-five mortality**



Source: UNICEF analysis based on UN IGME 2014.

The good news is that the global under-five mortality rate is falling faster now than at any other time over the past two decades. Between 1990 and 1995, the global annual rate of reduction stood at 1.2 per cent. Since then, the rate of reduction has more than tripled, rising to 4.0 per cent between 2005 and 2013 (figure 4).

This impressive progress extends to the world's poorest regions and countries. Between 2005 and 2013, Sub-Saharan Africa as a whole reduced its regional under-five mortality rate more than five times faster than it did between 1990 and 1995. Progress is accelerating in both Eastern and Southern Africa and West and Central Africa, although declines in child mortality have been faster in Eastern and Southern Africa. The region's annual rate of reduction increased fivefold, from 1 per cent per year in 1990-1995 to 5.1 per cent in 2005-2013. Since 2005, only the East Asia and Pacific region managed a faster rate of reduction in under-five mortality.

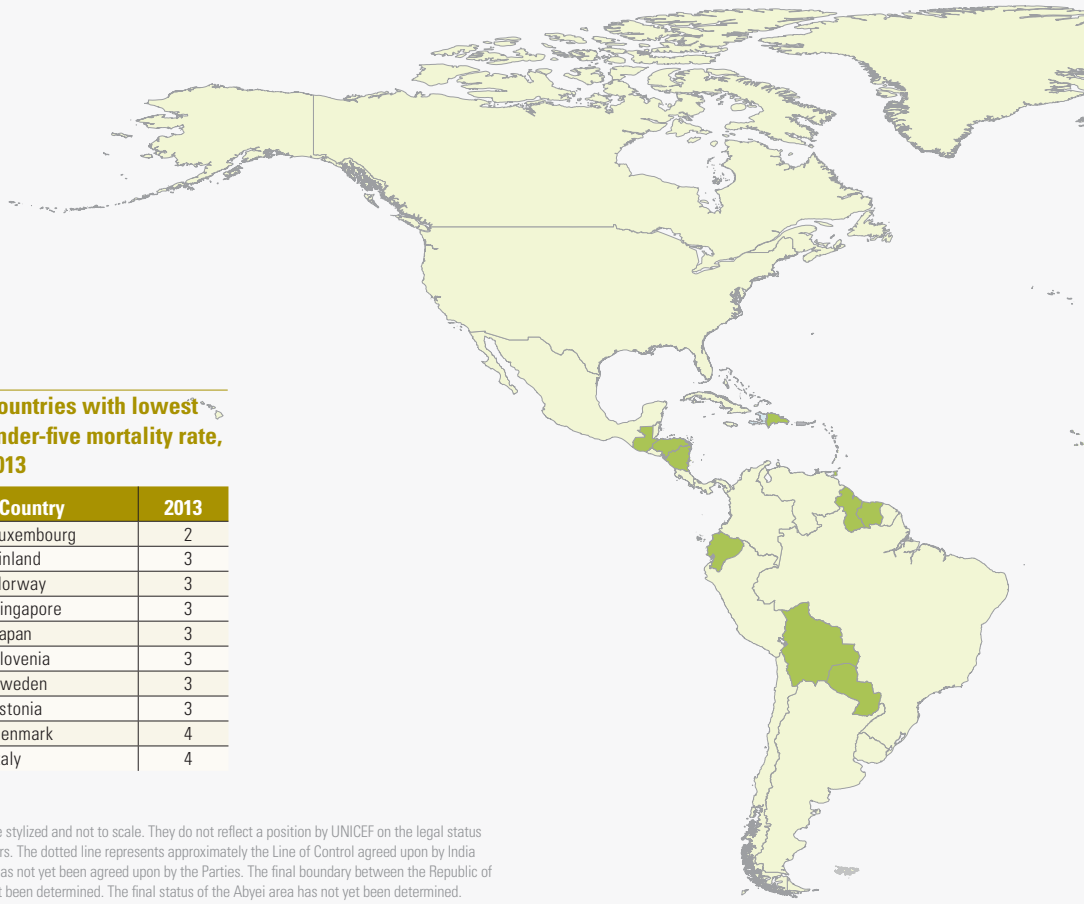
Mortality burden: concentrated in the poorest regions

Not surprisingly the burden of under-five mortality is concentrated in the world's poorest regions and countries. The latest data from 2013 show that sub-Saharan Africa shoulders the world's highest under-five mortality rates (figure 5). All 12 countries with an under-five mortality rate of 100 or more deaths per 1,000 live births are in sub-Saharan Africa, and 10 of these are in West and Central Africa. On average, 1 out of every 11 children born in sub-Saharan Africa dies before age 5. This is nearly 15 times the average rate (1 in 159) in high-income countries.

Sub-Saharan Africa and South Asia remain the regions with the greatest numbers of child deaths. In 2013, about half of global under-five deaths occurred in sub-Saharan Africa and 32 per cent in South Asia. Among the top 26 countries shouldering the burden

FIG. 5 **The highest rates of under-five mortality are concentrated in sub-Saharan Africa and South Asia**

Under-five mortality rate, by country, 2013



Countries with an under-five mortality rate of at least 100 deaths per 1,000 live births, 2013

Country	2013
Angola	167
Sierra Leone	161
Chad	148
Somalia	146
Central African Republic	139
Guinea-Bissau	124
Mali	123
Democratic Republic of the Congo	119
Nigeria	117
Niger	104
Guinea	101
Côte d'Ivoire	100

Countries with lowest under-five mortality rate, 2013

Country	2013
Luxembourg	2
Finland	3
Norway	3
Singapore	3
Japan	3
Slovenia	3
Sweden	3
Estonia	3
Denmark	4
Italy	4

Note on maps: All maps included in this publication are stylized and not to scale. They do not reflect a position by UNICEF on the legal status of any country or area or the delimitation of any frontiers. The dotted line represents approximately the Line of Control agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the Parties. The final boundary between the Republic of the Sudan and the Republic of South Sudan has not yet been determined. The final status of the Abyei area has not yet been determined.

Note: Classifications in this map are based on unrounded numbers

Source: UN IGME 2014.

of 80 per cent of the world's under-five deaths, 19 are in sub-Saharan Africa. Nearly half of the global under-five deaths occurred in only five countries: India (21 per cent), Nigeria (13 per cent), Pakistan (6 per cent), Democratic Republic of the Congo (5 percent) and China (4 per cent) (figure 6). High-income countries only accounted for nearly 2 per cent of global under-five deaths in 2013. Yet these countries accounted for around 11 per cent of all births as well as 11 per cent of all children under age 5 in the world in that year.
.

Sub-Saharan Africa faces an additional challenge: extra efforts to decrease child mortality rates are needed to outpace the projected increase in live births and population of children under age 5.If current demographic trends continue, an estimated 5 billion children will be born worldwide between 2015 and 2050, 1,6 billion of them in sub-Saharan Africa.[2] By 2050, 37 per cent of the global under-five population will be living in sub-Saharan Africa, compared to just 9 per cent in 1950.

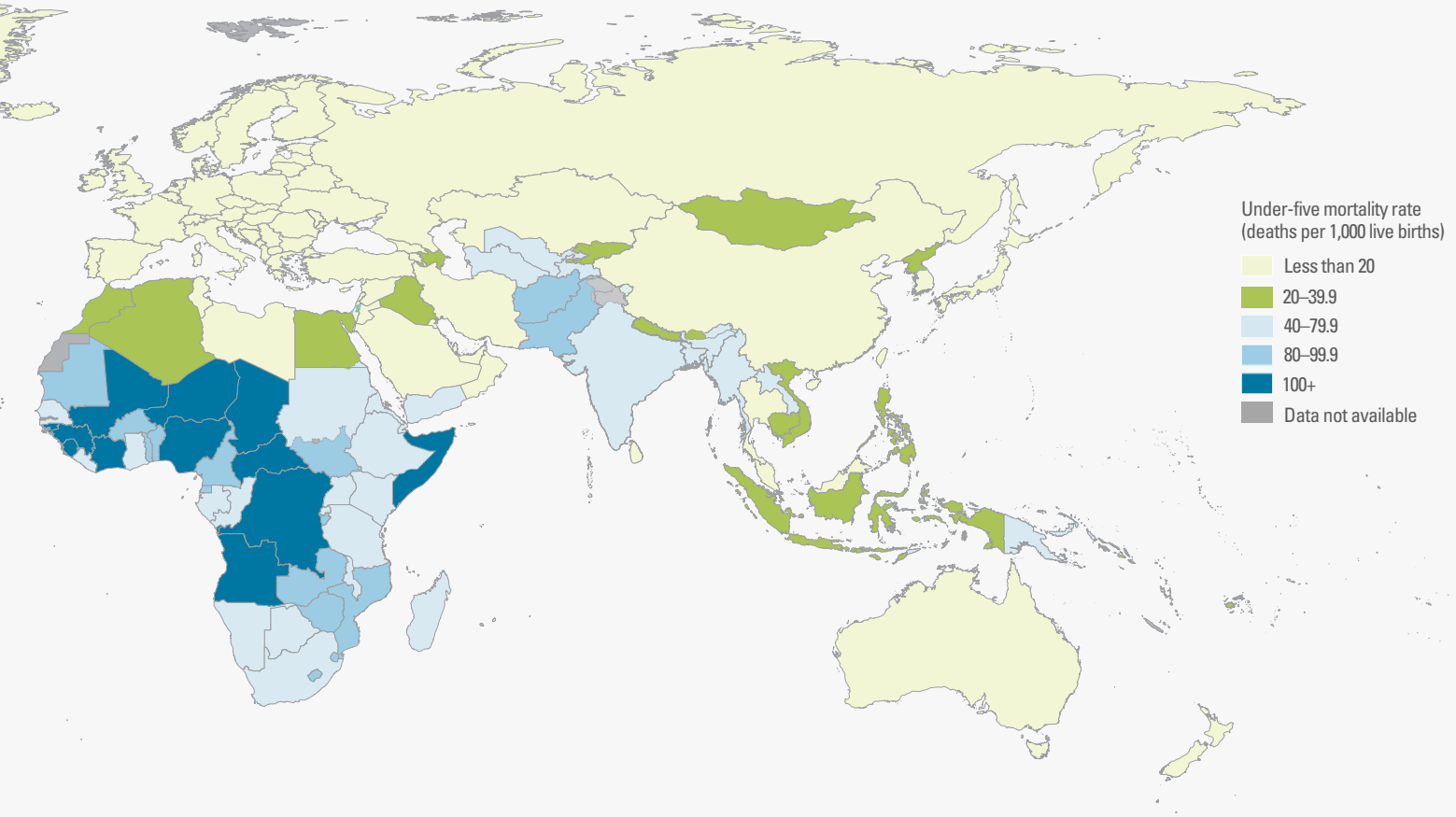


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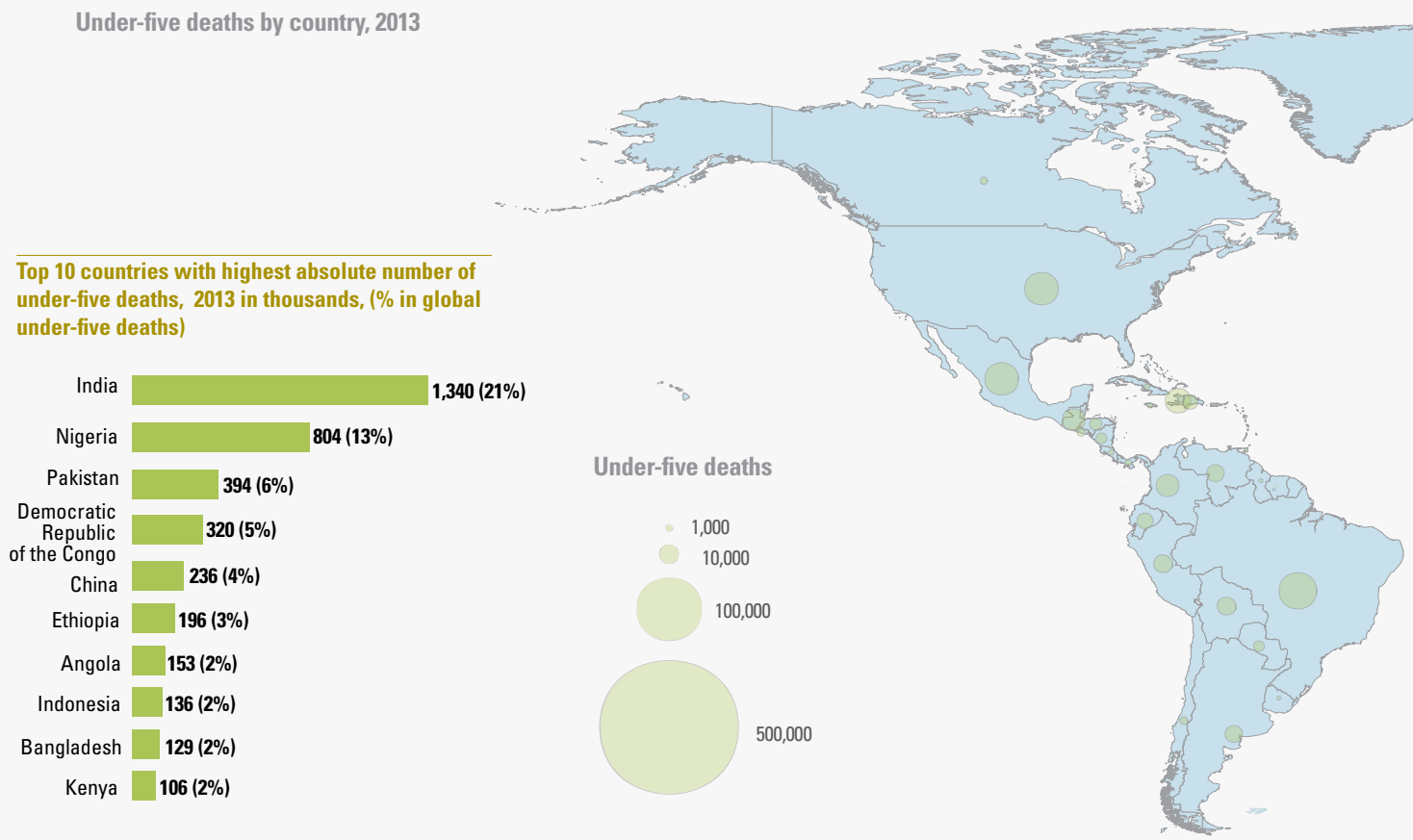
FIG. 6 **Half of under-five deaths occur in just five countries**



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Note: The first number cited for each country refers to under-five deaths in thousands, the second to its share of the global under-five deaths.

Source: UN IGME 2014.

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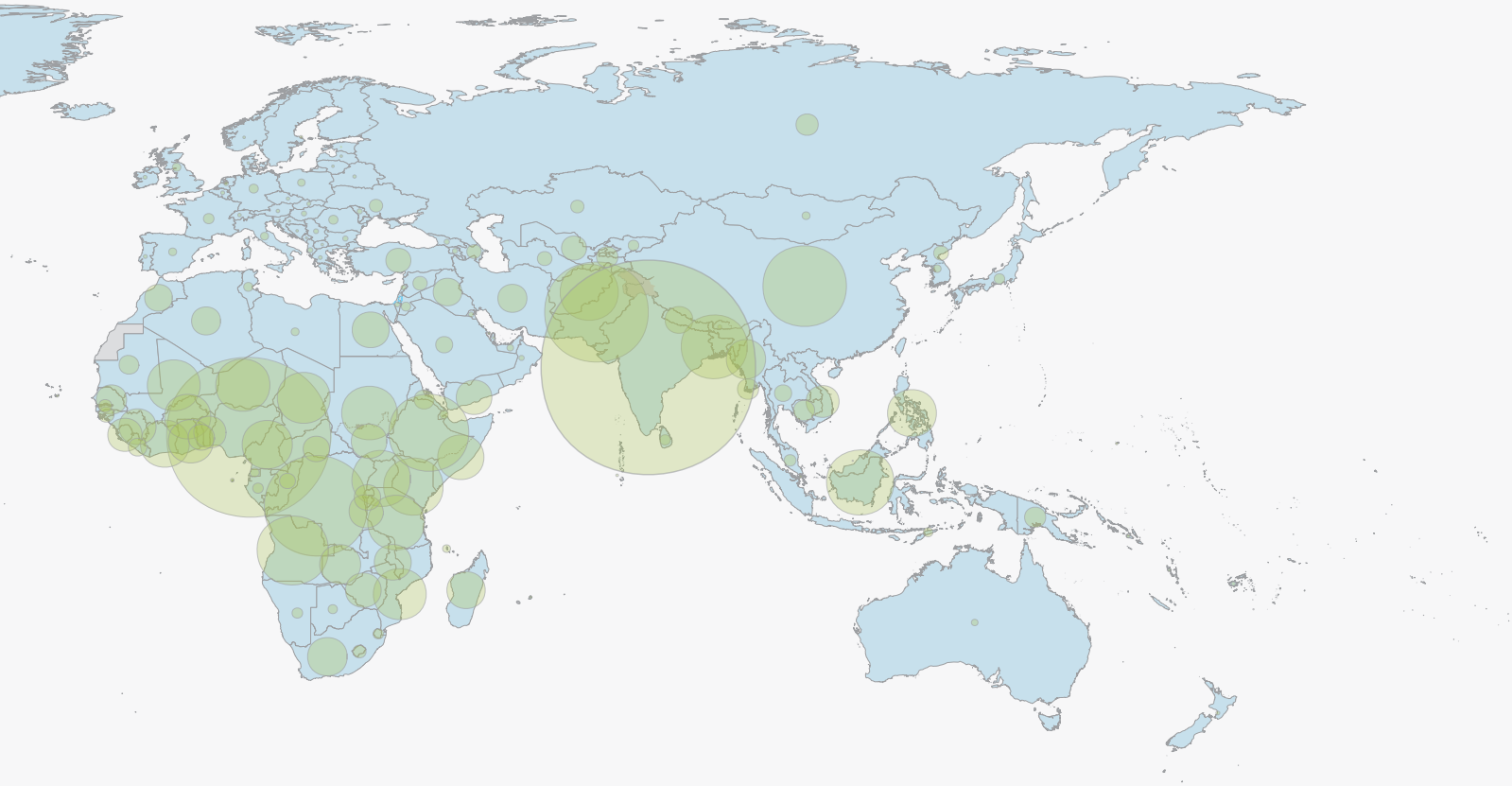
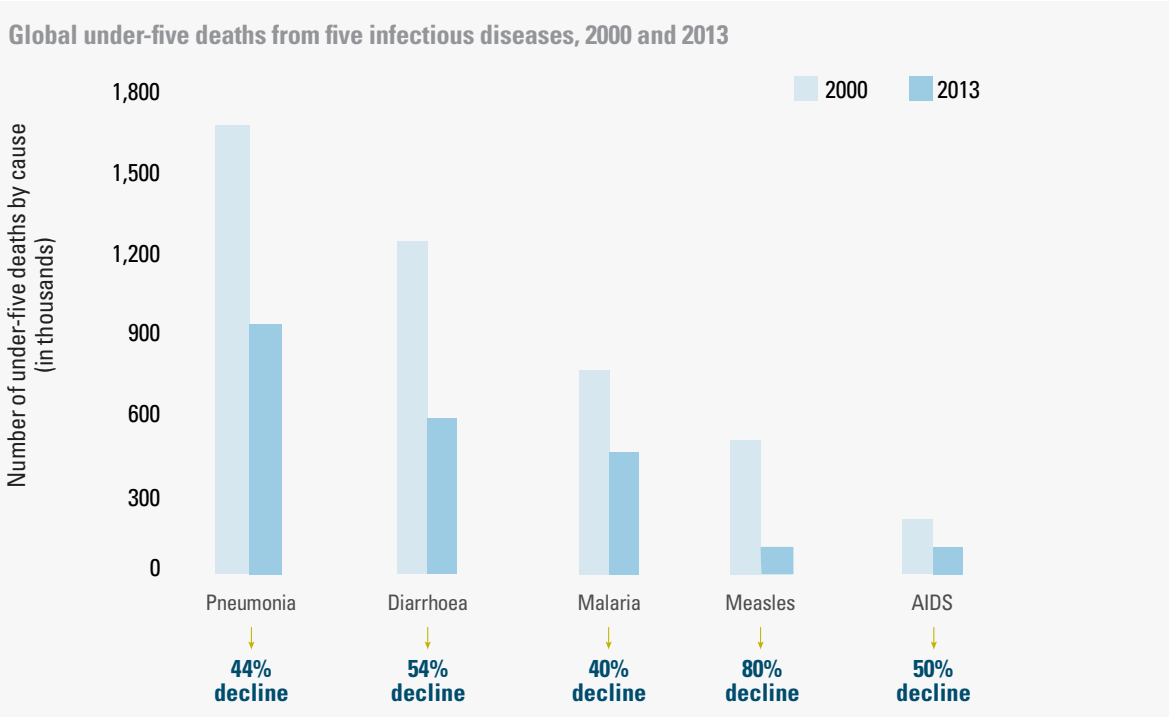


Causes of under-five deaths

The steady improvement in under-five survival is explained by a combination of advances. They include developments in science and technology (for example, oral rehydration salts that treat diarrhoeal dehydration and insecticide-treated mosquito nets for malaria prevention), improved health seeking behaviours (such as women's increasing use of antenatal care and skilled providers for care around the time of birth), and improved coverage of effective interventions to prevent or treat the most important causes of child mortality. Each one of these advances is due to the political will of committed governments and the expansion of innovative partnerships involving civil society and the public and private sectors. Taken together, these efforts are reducing the number of young lives claimed by the leading causes of under-five mortality: pneumonia, diarrhoea, malaria, measles and AIDS. As a result, 2.2 million fewer children died from these five diseases in 2013, compared to 2000 (figure 7).[3]

FIG. 7 **Child deaths from leading infectious diseases have declined dramatically during the last decade**



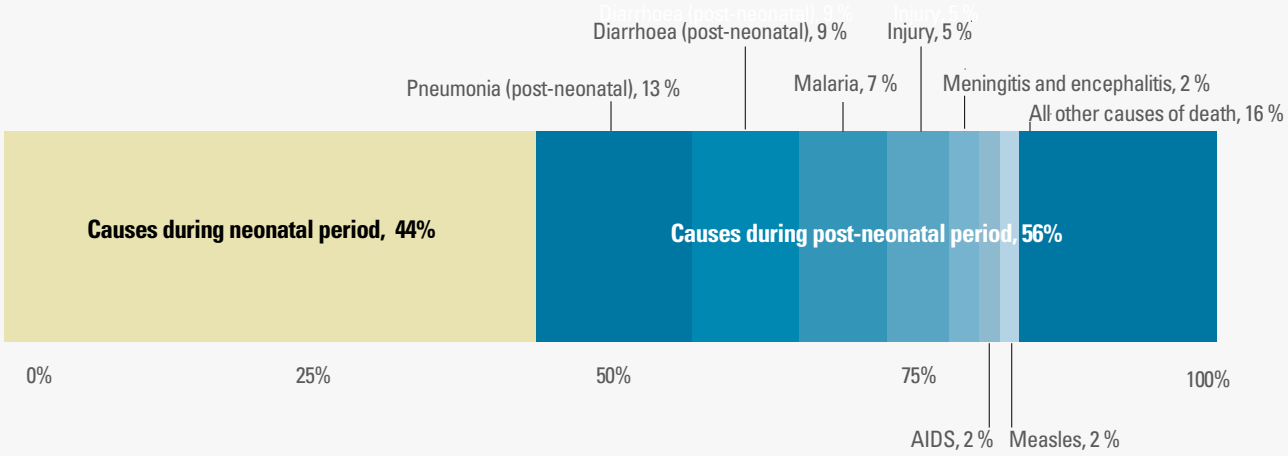
Note: For comparability across diseases, this report presents analysis based on UN IGME 2014, drawing on provisional analyses by WHO and CHERG in 2014. These estimates may differ, therefore, from those presented elsewhere.

Source: The World Health Organization (WHO) and the Child Health Epidemiology Reference Group (CHERG) provisional estimates 2014 (http://www.who.int/healthinfo/statistics/ChildCOD_method.pdf).

However, in nearly every region of the world, infectious diseases and other preventable causes of death continue to sicken and kill the youngest, poorest and most vulnerable children. Pneumonia, diarrhoea and malaria claim the lives of 3 out of every 10 children who die before the age of 5 (figure 8). Pneumonia alone accounts for 15 per cent of all under-five deaths. Many of these deaths occur in children whose immune systems are already weakened by undernutrition – globally, nearly half of all deaths among children under 5 are attributable to undernutrition.

FIG. 8 **Pneumonia, diarrhoea and malaria are the main killers of children under age 5, and 44 per cent of under-five deaths occur in the neonatal period**

Global distribution of deaths among children under 5 by cause, 2013



Globally, nearly half of all deaths among children under 5 are attributable to undernutrition

Source: WHO-CHERG provisional estimates 2014 (http://www.who.int/healthinfo/statistics/ChildCOD_method.pdf).

BOX 1| NARROWING THE GAPS IN UNDER-FIVE MORTALITY

One of the first principles of *A Promise Renewed* is a focus on the poorest and most disadvantaged regions and population groups. This focus not only represents the world's largest concentration of child deaths, but also has the greatest potential to yield substantial returns. Reaching MDG 4 and sustaining the progress until 2035 and beyond therefore requires a deeper understanding of the patterns of inequity across every region and in every country, trends that are often concealed by global averages.

A new UNICEF analysis offers fresh insight into the relationship between household wealth and outcomes for children under age 5.[1] Based on 280 Demographic Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS), the analysis shows that under-five mortality is declining among the poorest households. In every region except sub-Saharan Africa, the proportional declines in the under-five mortality rates among the poorest household tended to be larger than those in the richest households (figure A). In every region, the poorest households saw far greater absolute gains in child survival, compared to the richest households (figure B).

Encouragingly, as the pace of progress accelerates among the poorest households, the gap between the richest and poorest households is narrowing. Between 1990 and 2010, disparities in under-five mortality declined significantly. This trend occurred in all regions, with the exception of sub-Saharan Africa, which bears the greatest global burden of under-five mortality and relatively low disparities, compared to other regions (figure C).

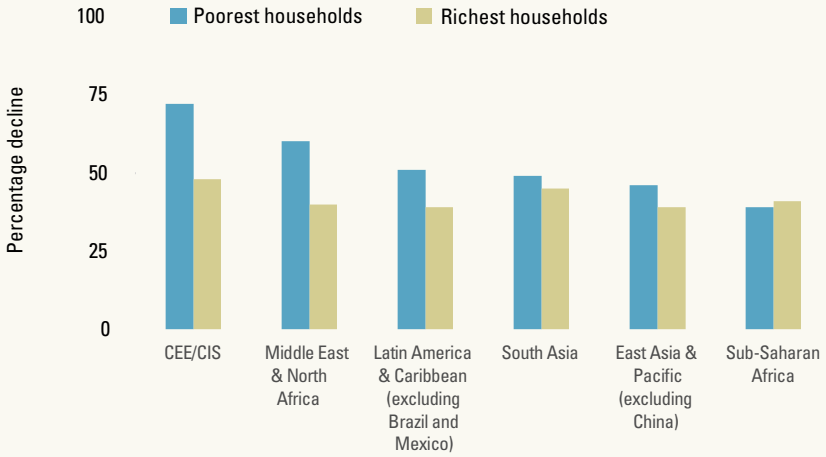
However, in most regions, the disparate rates of under-five survival remain stark, especially between the poorest and richest households. In East Asia and the Pacific, for example, the under-five mortality rate in the poorest households is more than twice that of the richest. In South Asia, children from the poorest households face double the risk of dying before age 5, compared to children from the richest households (figure C).

The findings from this important study confirm that even the poorest households are making progress on child survival. Just as important, the pace of progress in the poorest households exceeds the richest in most regions. The progress needs to be encouraged and sustained through costed strategies that target the poorest and most marginalized households, and a continued effort to monitor and report the inequities that are often concealed by global averages.

FIG. A

Under-five mortality rates declined faster among the poorest households than the richest in most regions

Percentage declines in under-five mortality among the poorest and the richest households, by region, 1990 to 2010



Source for figures A, B and C: UNICEF analysis based on J. Pedersen, L. Alkema and J. Liu. 'Levels and trends in inequity and child mortality: Evidence from DHS and MICS surveys.' Working paper, forthcoming 2014.

FIG. B **Larger absolute gains in under-five mortality rates were achieved among the poorest households in all regions**

Absolute declines in under-five mortality among the poorest and the richest households, by region, 1990 to 2010

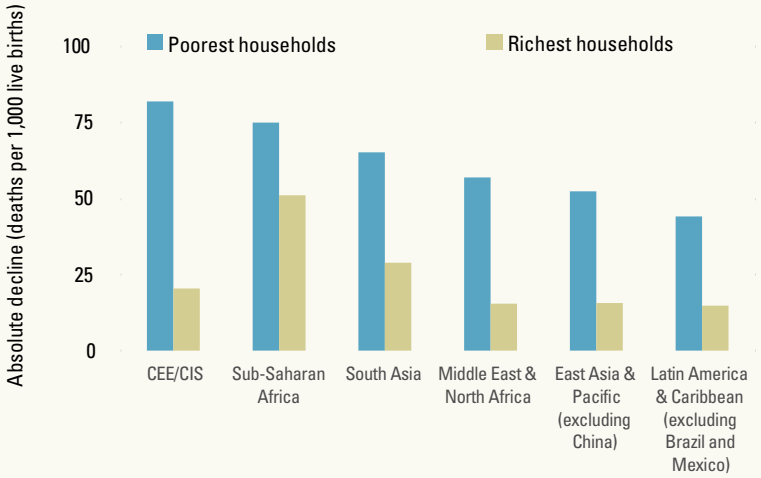
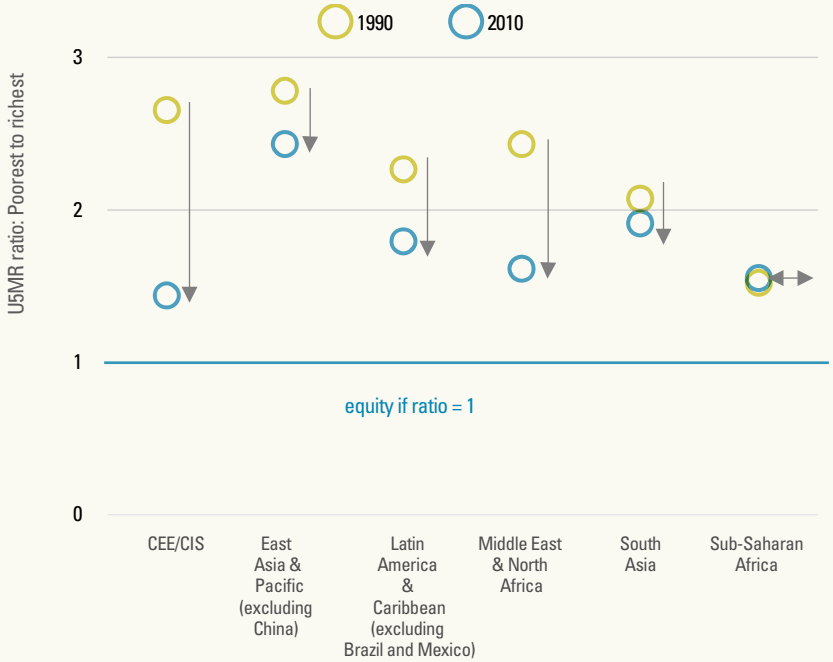


FIG. C **Disparities in under-five mortality rates between the poorest and the richest households declined significantly but remain unacceptably high in most regions of the world**

Ratio of under-five mortality of the poorest to the richest by region, 1990 and 2010



Key messages from this chart

- Disparities in under-five mortality have declined in all regions since 1990 except sub-Saharan Africa.
- Sub-Saharan Africa shows no significant changes in mortality disparities between the poorest and the richest households. However, the disparities in this region are among the lowest.
- Yet even as trends converge, disparities remain in all regions.

Note: This box summarizes the main findings of an analysis of more than 280 household surveys. The regional mortality estimates by wealth quintile included in this panel are derived from a model based on the assumption of a constant relative change within country-quintiles, i.e., linear changes in under-five mortality on a logarithmic scale at the country level per wealth quintile group, therefore not weighted by country-specific numbers of live births or under-five population. Caution should be used in interpreting these results. Results from weighted regional averages also show faster declines among the poorest households than the richest and disparities in under-five mortality have declined in most regions except sub-Saharan Africa.

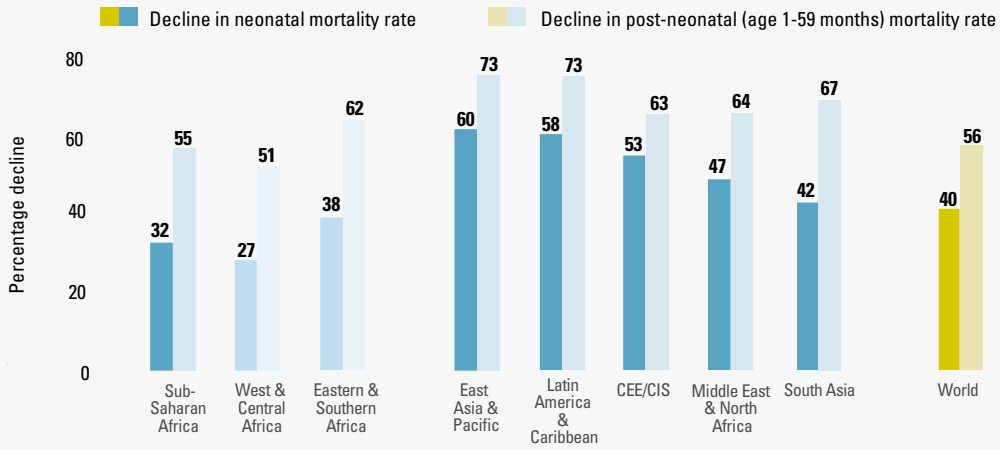
THE INCREASING BURDEN OF NEWBORN DEATHS

Among all under-five deaths in 2013, 44 per cent occurred during the neonatal period (figure 8), increasing from 37 per cent in 1990. Because mortality in the neonatal period (the first 28 days of life) tends to decline more slowly than the post-neonatal period (1–59 months), every region of the world is experiencing an increase in the proportion of under-five deaths occurring in the neonatal period (figure 9).

In four regions — South Asia, East Asia and the Pacific, Latin America and the Caribbean, and the Middle East and North Africa — half or more of all under-five deaths are now concentrated in the first month of life. Generally, there is a negative correlation between the under-five mortality rate and the share of neonatal deaths among under-five deaths — countries with low child mortality usually have a large proportion of neonatal mortality. In 40 countries with low under-five mortality rates (less than 20 deaths per 1,000 live births), at least 60 per cent of under-five deaths occurred in the neonatal period in 2013.

FIG. 9 **Declines in neonatal mortality are not keeping pace with declines in post-neonatal mortality**

Percentage decline in neonatal and post-neonatal (age 1-59 months) mortality rate by region, 1990–2013



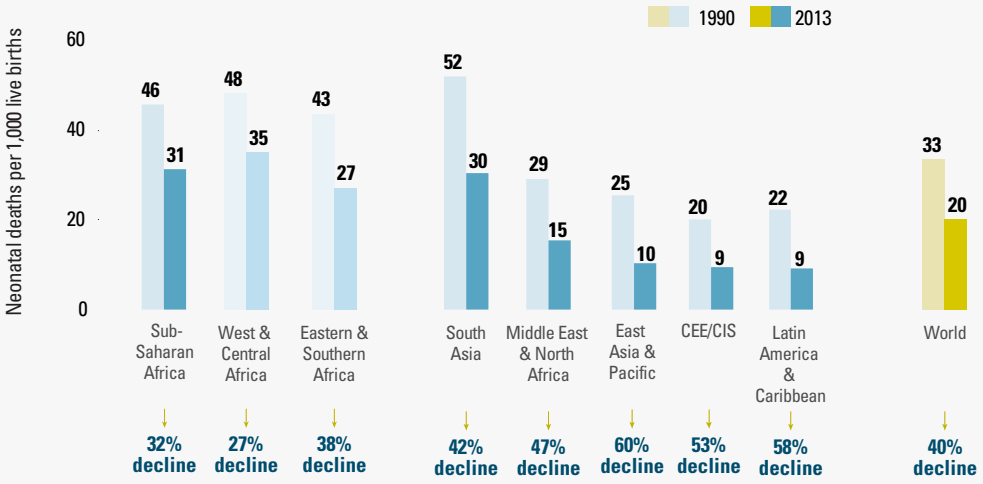
Source: UNICEF analysis based on UN IGME 2014.

Neonatal mortality: levels and trends

The good news is that, overall, neonatal mortality is on the decline worldwide. Between 1990 and 2013, the global neonatal mortality rate fell by 40 per cent, from 33 deaths per 1,000 live births to 20 per 1,000 (figure 10). This positive trend occurred in every region and across diverse socioeconomic contexts – all regions reduced the neonatal mortality rate by 27 per cent or more. East Asia and the Pacific achieved the most impressive improvement in newborn survival with a reduction of 60 per cent in the neonatal mortality rate.

FIG. 10 **Neonatal mortality rates are declining in all regions**

Neonatal mortality rate by region, 1990 and 2013

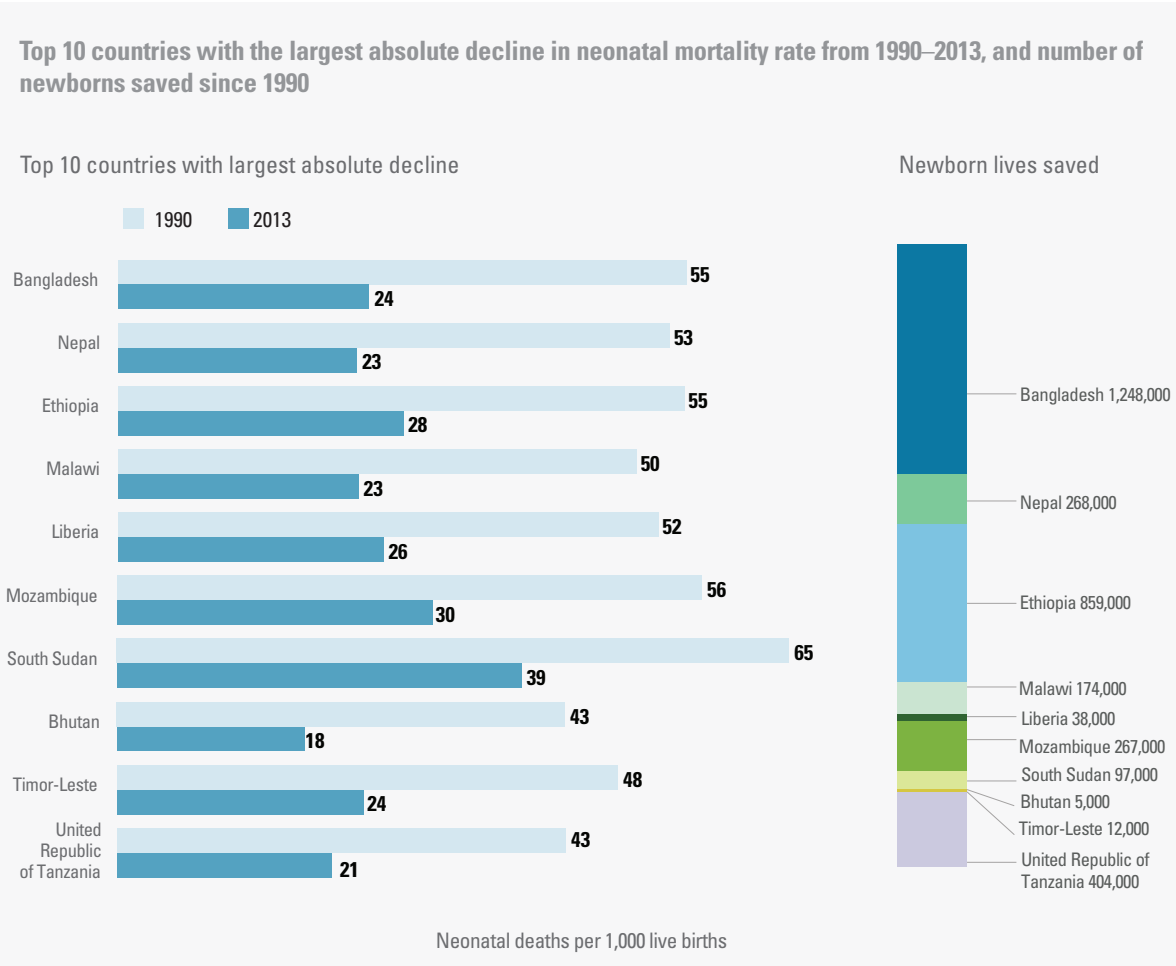


Source: UN IGME 2014.

As of 2013, 10 low-income and lower-middle-income countries across Africa and Asia recorded the highest absolute declines in neonatal mortality (figure 11). The combined efforts of these 10 countries helped to save the lives of 3.4 million newborns. The latest data show too that even countries with low neonatal mortality rates continue to make progress in reducing neonatal deaths. The largest relative gains in neonatal survival since 1990 are found in nine European countries and one Asian country (figure 12).

Globally, efforts to accelerate progress on neonatal survival helped save 24 million newborns worldwide, lives that would have been lost had mortality remained at 1990 rates (figure 13).

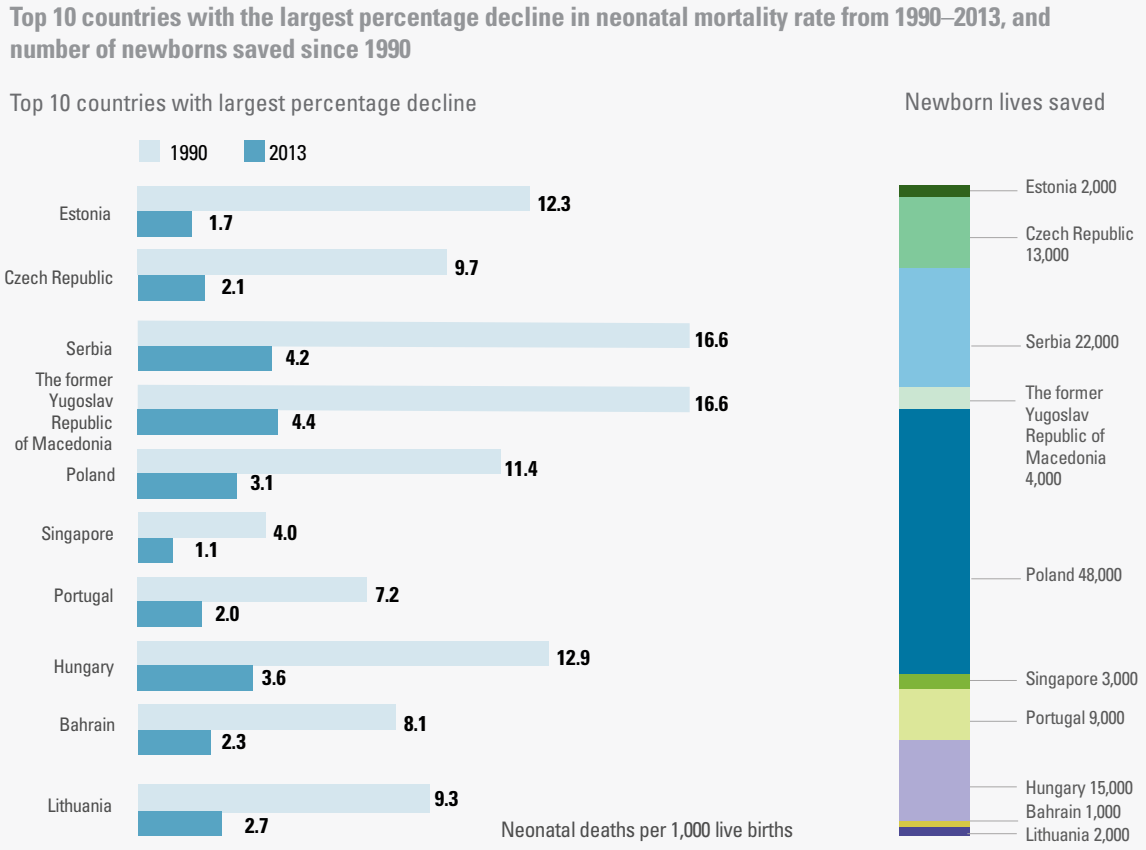
FIG. 11 **Countries with the largest absolute declines are low- and lower-middle-income countries located in Africa or Asia**



Note: Countries with fewer than 10,000 live births in 2013 are excluded.

Source: UNICEF analysis based on UN IGME 2014.

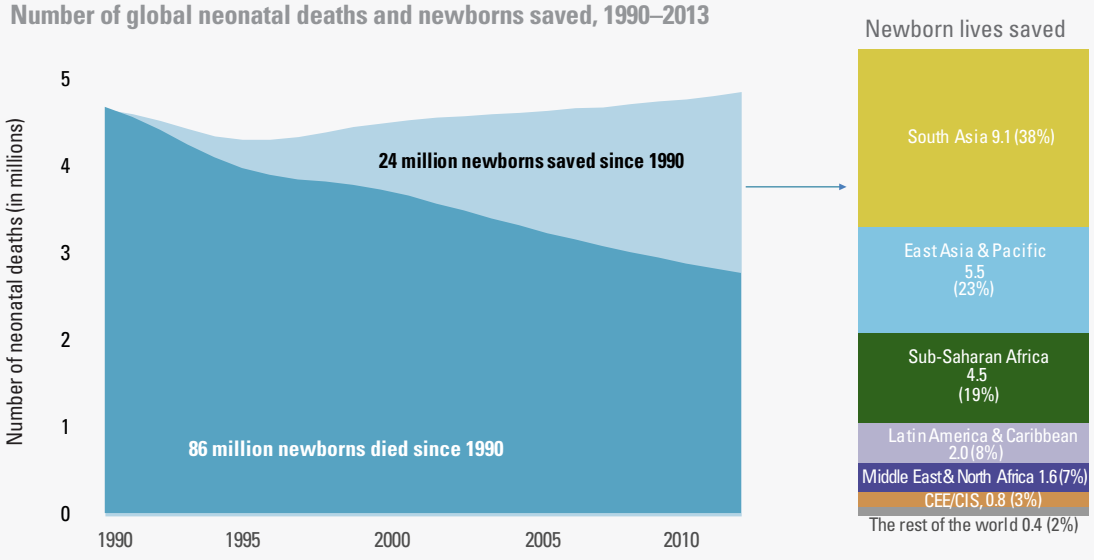
FIG. 12 Countries with the largest percentage declines are mostly located in Europe



Note: Countries with fewer than 10,000 live births in 2013 are excluded.

Source: UNICEF analysis based on UN IGME 2014.

FIG. 13 Progress in improving child survival has saved 24 million newborns since 1990



Note: In this chart, data for Djibouti and Sudan are not included in the Middle East and North Africa regional total, as they are already included in sub-Saharan Africa. Estimates are rounded, and therefore may not sum to 100%

Source: UNICEF analysis based on UN IGME 2014.

Wide disparities in global newborn survival

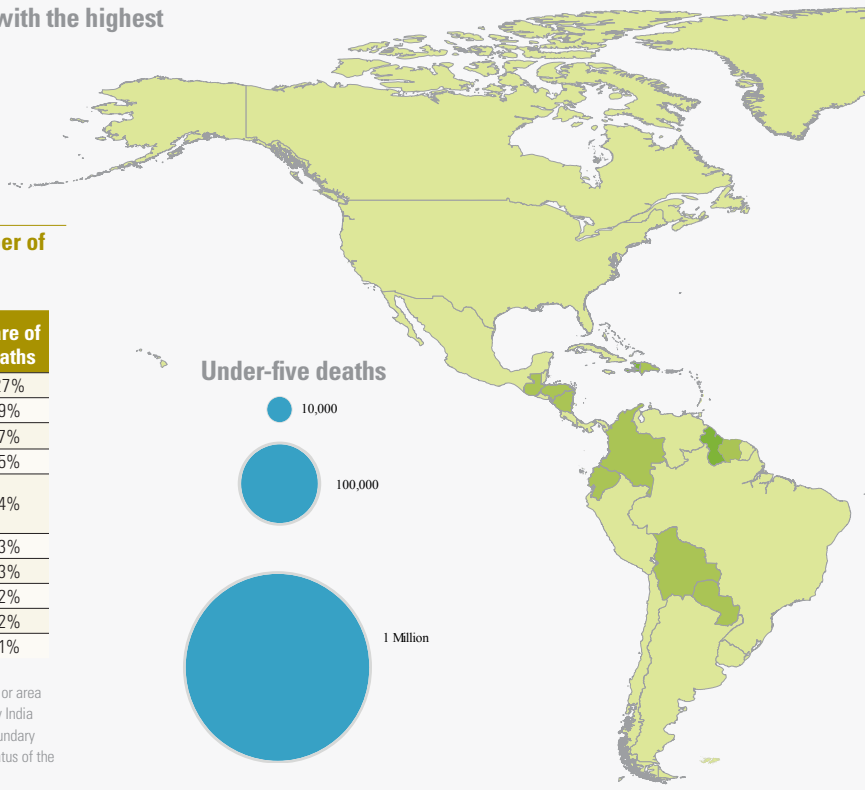
Preventable newborn deaths, like under-five deaths, are increasingly concentrated in the world's poorest countries. Together, low-income and lower-middle-income countries account for 85 per cent of all neonatal deaths, even though they are home to only 62 per cent of the world's newborns. By contrast, only 2 per cent of neonatal deaths occur in high-income countries and 13 per cent in upper-middle-income countries. The least developed countries carry 30 per cent of the global burden of neonatal deaths.

The gaps in progress in newborn survival are particularly stark when comparing the progress of individual countries. Across West and Central Africa, for example, the risk of a baby dying within the first 28 days of life is almost 10 times higher than the risk facing a baby born in a high-income country. With 47 neonatal deaths per 1,000 live births, Angola is the riskiest place to be a newborn (figure 14), while Iceland and Luxembourg have only 1 neonatal death per 1,000 live births.

Even within relatively poor regions, the progress on newborn survival varies enormously. Based on regional averages, together with South Asia, sub-Saharan Africa shoulders the largest burden of newborn death (figure 15). However, the trends differ significantly between West and Central Africa and Eastern and Southern Africa. Between 1990 and 2013, West and Central Africa saw an increase in the absolute numbers of neonatal deaths, despite modest declines in the neonatal mortality rate. As a result, that region now accounts for 22 per cent of global neonatal deaths, up from 11 per cent in 1990. In Eastern and Southern Africa, by contrast, the number of neonatal deaths began to decline slowly but steadily in the early 2000s. Nevertheless, Eastern and Southern Africa's global share of neonatal deaths continues to increase, rising from 10 per cent in 1990 to 15 per cent in 2013.

FIG. 14 **Approximately two thirds of all neonatal deaths worldwide occur in only 10 countries**

Neonatal mortality rate by country, and countries with the highest number of neonatal deaths, 2013



Ten countries with highest neonatal mortality rates in 2013

Rank	Country	2013
1	Angola	47
2	Somalia	46
3	Sierra Leone	44
4	Guinea-Bissau	44
5	Lesotho	44
6	Central African Republic	43
7	Pakistan	42
8	Mali	40
9	Chad	40
10	Zimbabwe	39

Ten countries with highest number of neonatal deaths in 2013

Rank	Country	Number of deaths	Share of deaths
1	India	748,000	27%
2	Nigeria	262,000	9%
3	Pakistan	194,000	7%
4	China	143,000	5%
5	Democratic Republic of the Congo	105,000	4%
6	Ethiopia	84,000	3%
7	Bangladesh	77,000	3%
8	Indonesia	66,000	2%
9	Angola	43,000	2%
10	Kenya	40,000	1%

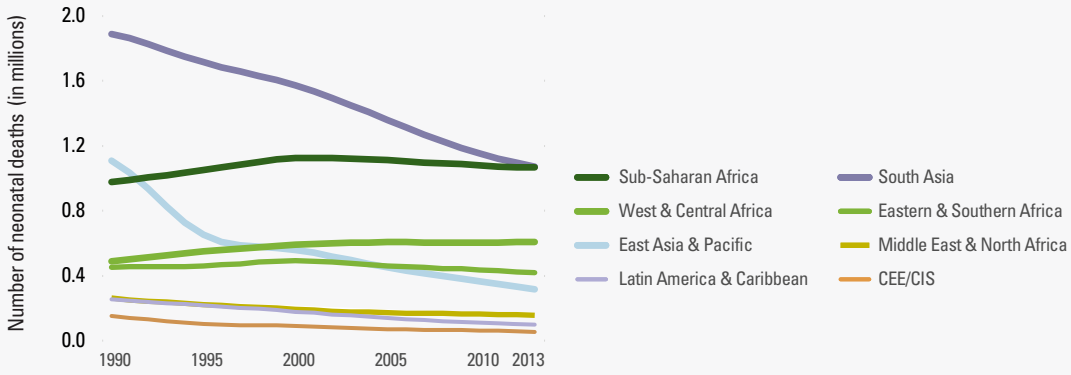
This map is stylized and not to scale. It does not reflect a position by UNICEF on the legal status of any country or area or the delimitation of any frontiers. The dotted line represents approximately the Line of Control agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the Parties. The final boundary between the Republic of the Sudan and the Republic of South Sudan has not yet been determined. The final status of the Abyei area has not yet been determined.

Note: Classifications in this map are based on unrounded numbers

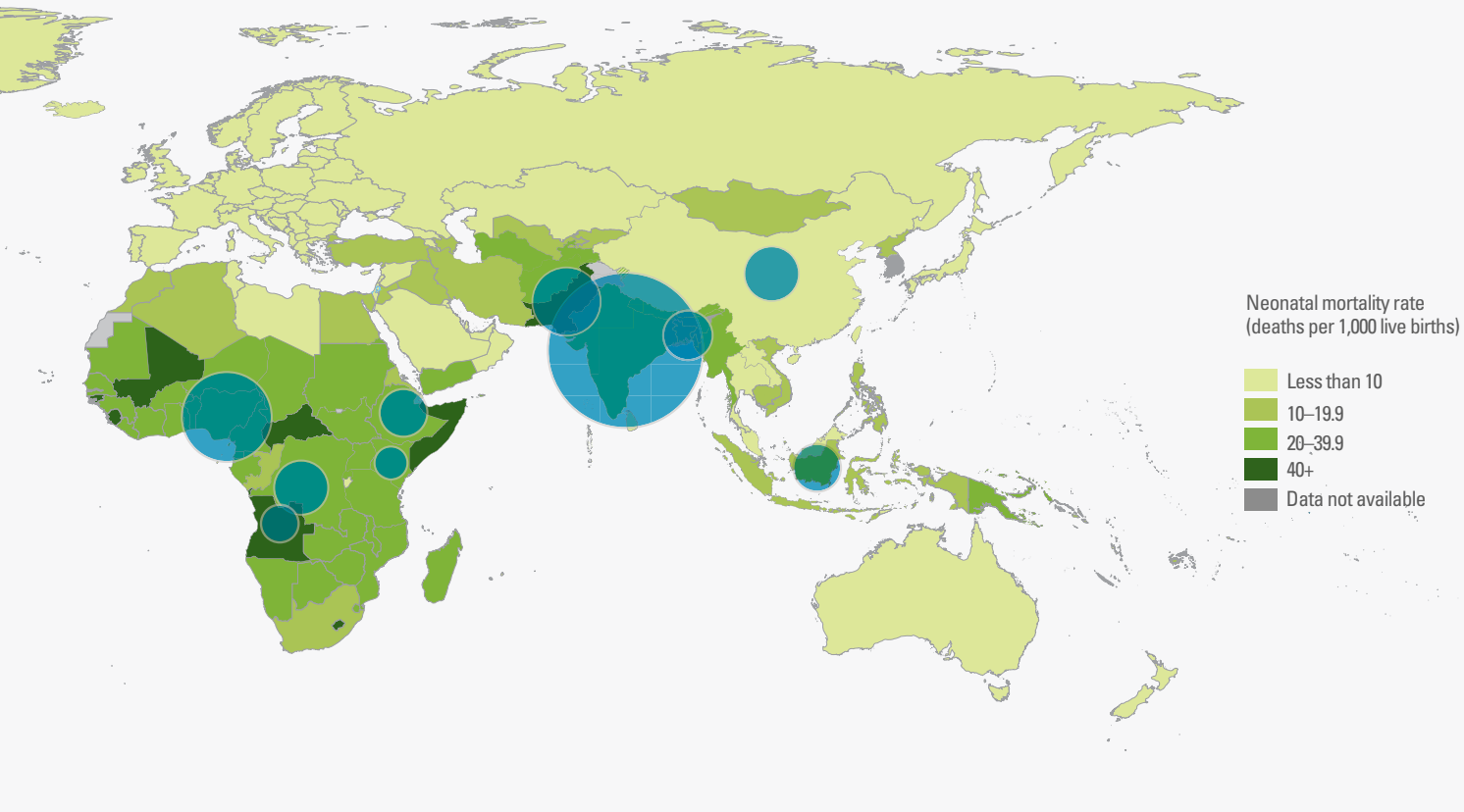
Source: UN IGME 2014.

FIG. 15 **Despite declining neonatal mortality since 1990, the number of newborns dying in sub-Saharan Africa is not falling, due to the increasing numbers of births**

Number of neonatal deaths by region, 1990–2013



Source: UN IGME 2014.



When newborns die: The most vulnerable time period

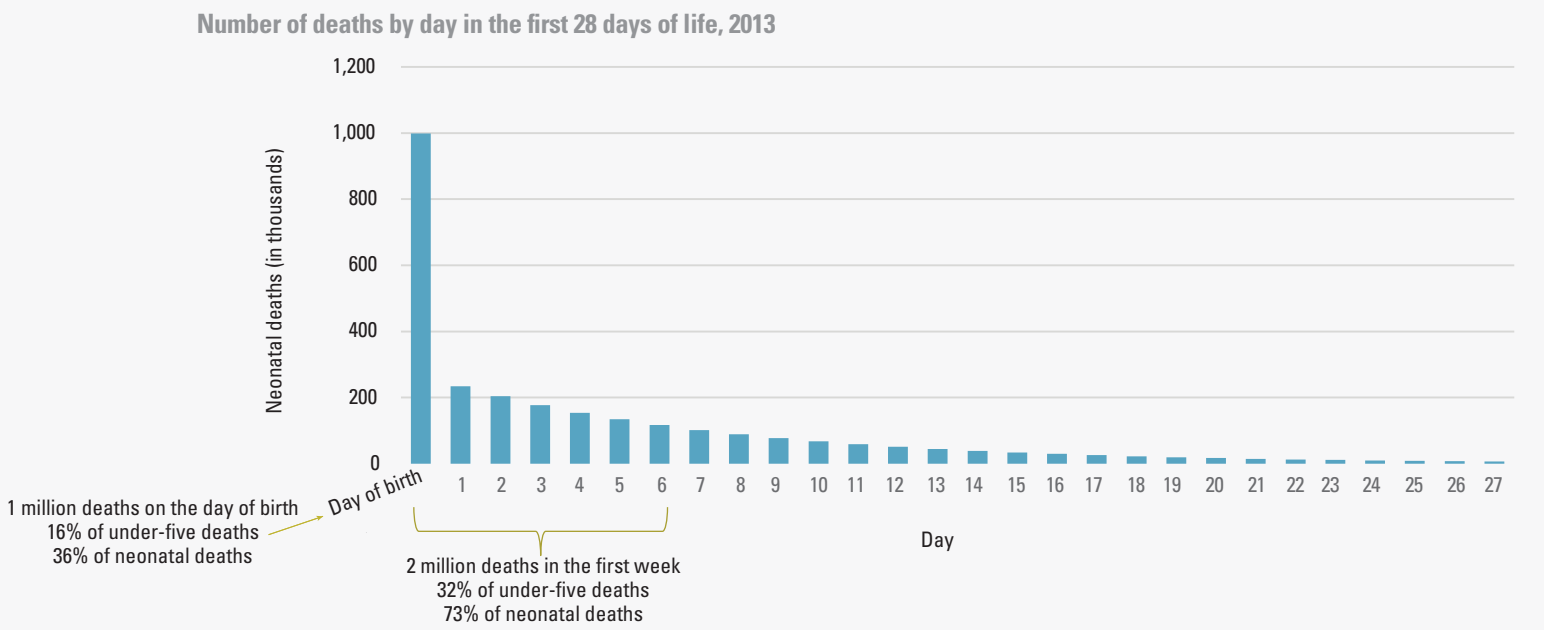
In 2013, almost 1 million newborns died on the day they were born, accounting for 16 per cent of all under-five deaths and more than a third of all neonatal deaths.[4] A total of 2 million newborns died within the first seven days after birth, representing 73 per cent of all neonatal deaths (figure 16). Between 1990 and 2013, 86 million newborn babies born worldwide died within their first 28 days of life.

Causes of neonatal deaths

Globally, the main causes of neonatal deaths are preterm birth complications (35 per cent), complications during labour and delivery (intrapartum-related complications) (24 per cent), and sepsis (15 per cent). Together, these three causes account for almost three quarters of all neonatal deaths (figure 17). Sustaining the momentum on newborn survival requires a renewed effort to build strong health services to provide high-quality prenatal care, skilled birth attendants, postnatal care for babies and mothers as well as other cost-effective interventions.

The causes of neonatal deaths vary by region. In sub-Saharan Africa and South Asia, for example, the main infectious diseases, including sepsis, pneumonia, diarrhoea and tetanus, account for approximately a quarter of all neonatal deaths. In high-income countries, by contrast, infectious diseases account for only 7 per cent of neonatal deaths (figure 18). To accelerate the progress in newborn survival, global efforts must be intensified to reduce these infectious diseases specifically in sub-Saharan Africa and South Asia.

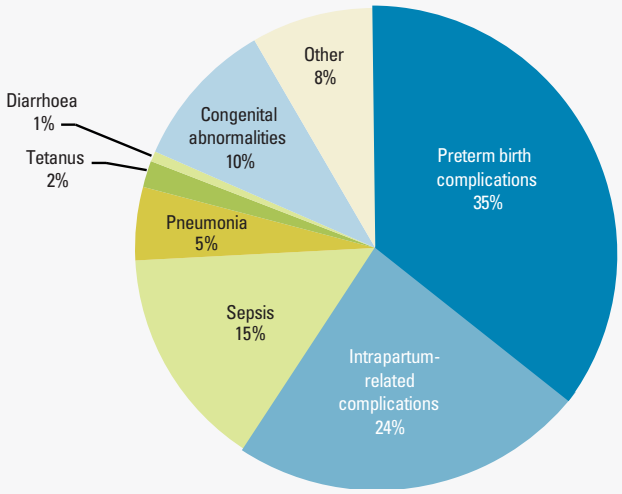
FIG. 16 **More than a third of all neonatal deaths occur on the day of birth**



Source: UNICEF analysis based on UN IGME 2014 and Lawn, Joy, et al., 'Progress, priorities, and potential beyond survival', The Lancet, Vol. 384, no. 9938, pp.189–205, 12 July 2014, doi:10.1016/S0140-6736(14)60496-7

FIG. 17 More than a third of neonatal deaths are caused by preterm birth complications and a quarter by intrapartum-related (labour and childbirth) complications

Global distribution of neonatal deaths, by cause, 2013

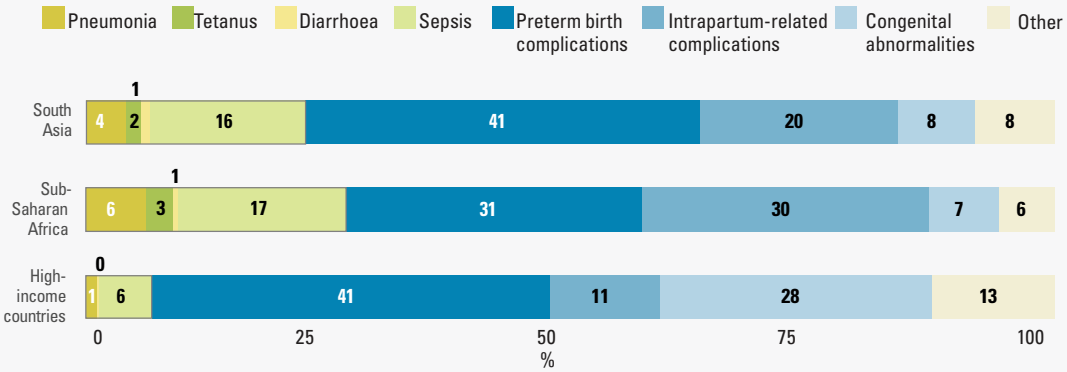


Note: Estimates are rounded, and therefore may not sum to 100%.

Source: WHO-CHERG provisional estimates 2014 (http://www.who.int/healthinfo/statistics/ChildCOD_method.pdf).

FIG. 18 Preventable infectious diseases are still a major cause of neonatal deaths in sub-Saharan Africa and South Asia

Distribution of neonatal deaths by cause and region, 2013

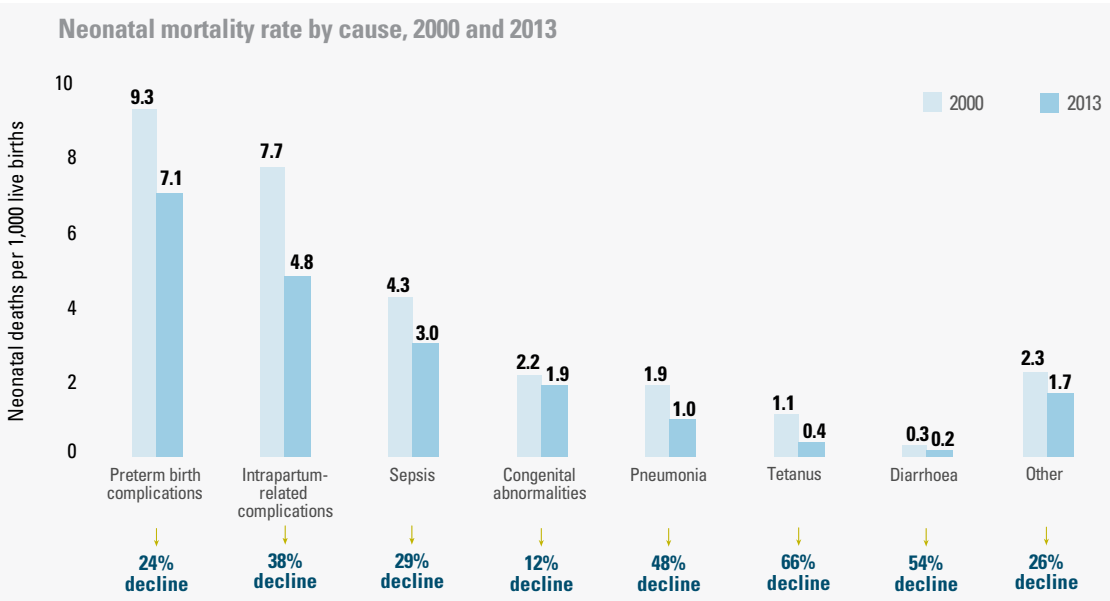


Note: Estimates are rounded, and therefore may not sum to 100%.

Source: WHO-CHERG provisional estimates 2014 (http://www.who.int/healthinfo/statistics/ChildCOD_method.pdf).

The world is witnessing a steady decline in the number of neonatal deaths caused by tetanus, diarrhoea and pneumonia. Between 2000 and 2013, the number of neonatal deaths resulting from tetanus fell by almost two thirds, from 150,000 to 50,000. Deaths caused by diarrhoea and pneumonia declined by about half. Neonatal mortality caused by complications during labour and delivery (intrapartum-related complications), the second leading cause of newborn death, declined by 38 per cent, and from sepsis by 29 per cent (figure 19).

FIG. 19 **Neonatal mortality rates are declining for all causes**

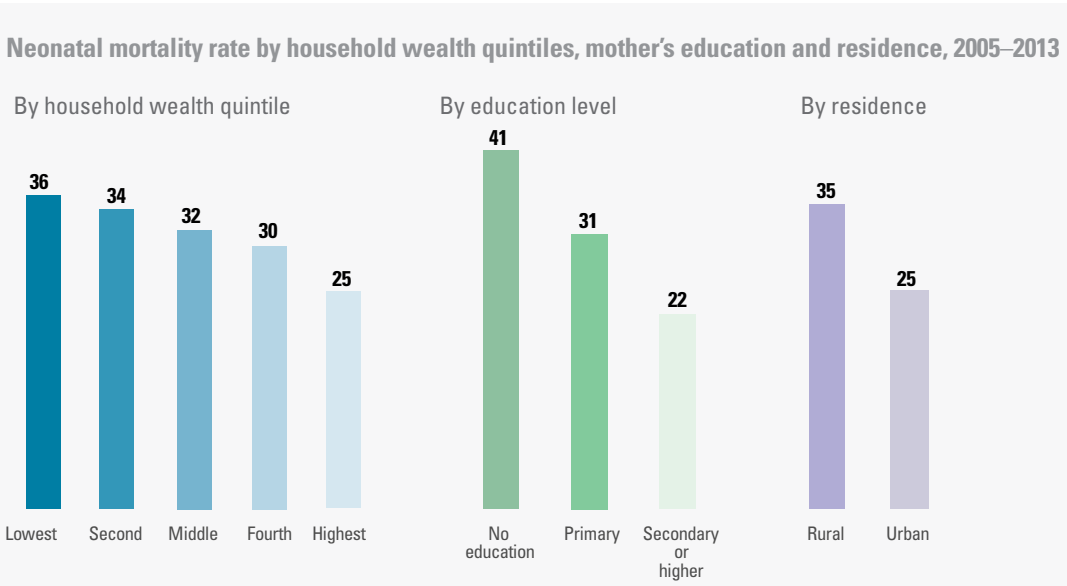


Source: WHO-CHERG provisional estimates 2014 (http://www.who.int/healthinfo/statistics/ChildCOD_method.pdf).

Critical determinants of neonatal mortality

A newborn's chances of survival are particularly dependent on income, maternal education and place of birth. Lower household wealth, an uneducated mother and birth in a rural area lower a newborn's chances of survival within the first 28 days of life, according to an analysis[5] based on data from MICS and DHS from about 60 countries, mostly in Africa and Asia (figure 20). The same analysis shows that even children born in urban areas, to the richest households and to mothers with secondary or higher education face a far greater risk of dying compared to children born into high-income and upper-middle-income countries.

FIG. 20 **Children born to poorer households, to mothers with no education and living in rural areas face a higher risk of dying in the first 28 days of life**



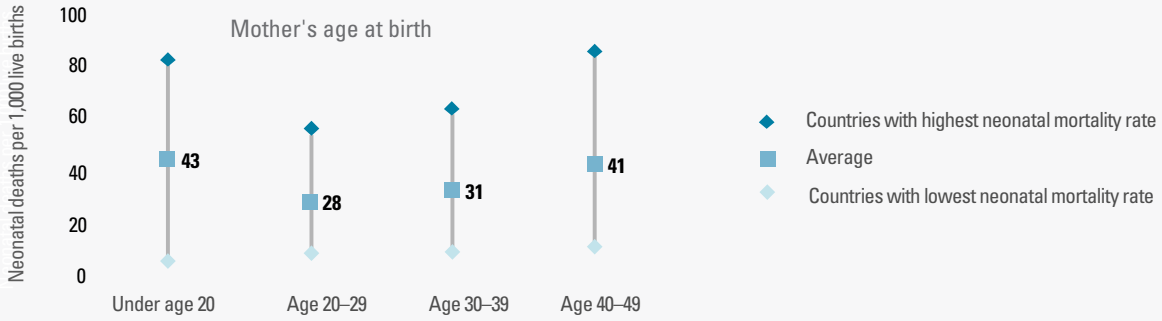
Note: Data are based on the MICS or DHS survey in a country that took place since 2005. Data from the most recent survey are used for countries with multiple surveys. Data by wealth quintile are based on 57 surveys, data by education level on 64 surveys and data by residence on 65 surveys.

Source: UNICEF analysis based on Multiple Indicator Cluster Surveys (MICS) and Demographic and Health Surveys (DHS).

Equally important is a mother's age at the time of birth. Evidence shows that babies born to mothers under the age of 20 face a 1.5 times higher risk of dying in the first 28 days of life, compared to babies born to mothers in their 20s or 30s. On the other end of the maternal age spectrum, babies born to mothers over age 40 face a higher risk of neonatal mortality compared to those born to women between ages 20 and 39 (figure 21).

FIG. 21 **Children born to mothers younger than 20 or older than 40 tend to have higher neonatal mortality rates than children born to mothers aged 20–29 or 30–39**

Neonatal mortality rate by age of mother at birth in selected countries, 2005–2013



Note: Data are based on 53 MICS or DHS survey that took place since 2005. Data from the most recent survey are used for countries with multiple surveys.

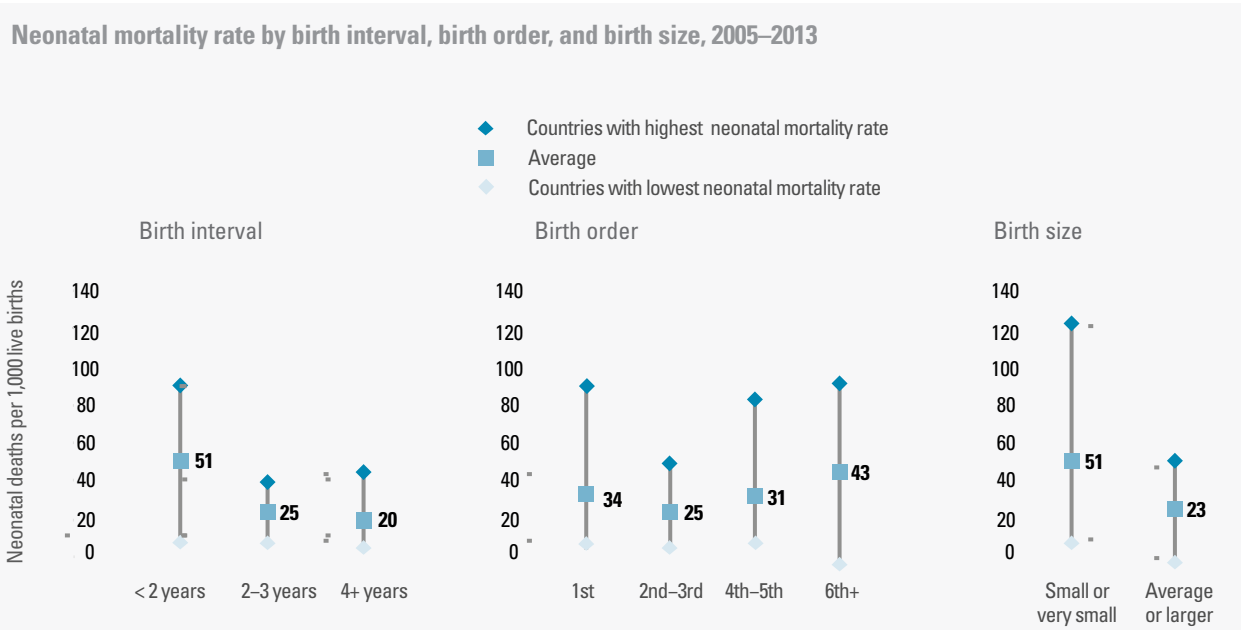
Source: UNICEF analysis based on MICS and DHS surveys.

Another important determinant of newborn survival is birth spacing. Children born less than two years after their closest older sibling are nearly twice as likely to die during the first month of life as those born two or three years later. Survey data indicate that birth order is also a predictor – the higher the birth order (especially 6 plus), the higher the risk of neonatal mortality. However, the association between high birth order and child mortality may not be physiologically driven; it can be largely attributed to the difference in the background characteristics of mothers with high fertility.[6]

Neonatal birth size is also associated with neonatal mortality. Survey data show that newborns reported as very small or small have higher neonatal mortality rates compared to newborns whose size is average or large, particularly in high-mortality countries (figure 22). This may be due to their greater susceptibility to infection.

The critical determinants of newborn mortality underscore the need for a comprehensive response to the growing proportion of neonatal deaths worldwide. While quality health care is undoubtedly important to both the mother and newborn, so too are preventative efforts to keep girls in school, stop child marriage, reduce adolescent fertility and promote the overall health, nutrition and education of adolescent girls. Protecting the basic rights of all girls and women is one of the surest ways to increase prospects for a safe pregnancy and a healthy newborn.

FIG. 22 **Short birth interval, high birth order and small birth size are important risk factors associated with high neonatal mortality**



Note: Data are based on MICS or DHS survey in a country that took place since 2005. Data from the most recent survey are used for countries with multiple surveys. Data by birth interval are based on 61 surveys, data by birth order on 63 surveys and data by birth size on 54 surveys.

Source: UNICEF analysis based on MICS and DHS surveys.

CLOSING THE GAP ON MDG 4

A growing coalition comprised of civil society, the private sector and governments is mobilizing around the goals of *A Promise Renewed*. As this chapter demonstrates, the rate of under-five mortality is falling, faster than at any time over the past two decades.

Of the 60 high-mortality countries worldwide, 27 cut their under-five mortality rate by half between 1990 and 2013. Over the same period, 8 high-mortality countries experienced a two-thirds decline in under-five mortality — meeting the MDG 4 target. If current trends continue, 63 countries are expected to meet the MDG 4 target by 2015.

Nevertheless a large number of countries are at grave risk of missing the deadline. If current trends in all countries continue, the world as a whole will only reach the target by 2026, 11 years behind schedule. To meet the goal on time, the annual rate of reduction of under-five mortality must increase to 20.8 per cent — an unprecedented rate of progress, far exceeding any regional or national rate recorded since 1990, and an additional 2.3 million children's lives above the current trend rate will need to be saved between 2014 and 2015.

The consequences of reneging on the promise of MDG 4 can only be measured in lives. Between 1990 and 2013, the world suffered the loss of an estimated 223 million children under age 5. The tragedies behind these statistics are all the more devastating because so many of these deaths are preventable.

The increased availability of simple and affordable solutions to the leading causes of under-five mortality is contributing to better outcomes for women and children around the world. Yet because of inequalities, progress often leaves in its wake the poorest and most vulnerable and disadvantaged children and newborns, who continue to miss out on the life-saving solutions they so desperately need. In every region of the world, rich and poor, disparities in the coverage and quality of critical interventions threaten to undermine the gains made on newborn and child survival over the past decade.

Intensifying the focus on newborns

To close the gap on MDG 4 and sustain the progress beyond 2015, in line with the goals of *A Promise Renewed*, every country in the world must increase the attention paid to quality care for mothers and newborns. As the global rate of under-five mortality continues to decline, newborns make up a growing proportion of the children under age 5 who die every day. The world has at its disposal the science, evidence and affordable solutions needed to save these precious lives. The greatest and most immediate gains can be made in sub-Saharan Africa and South Asia, the two regions that account for the majority of preventable newborn deaths. As discussed in chapter 2, there are readily available, cost-effective strategies that can be deployed to give every mother and child the best possible opportunity for a healthy pregnancy and a safe start in life.

BOX 2| TRACKING PROGRESS ON CHILD MORTALITY REDUCTION — THE UN INTER-AGENCY GROUP FOR CHILD MORTALITY ESTIMATION

Established in 2004, the UN Inter-agency Group for Child Mortality Estimation (UN IGME) harmonizes child mortality estimates on behalf of the UN system. Additionally, the UN IGME monitors global progress towards the Millennium Development Goals, updates the methodology to estimate child mortality, and reinforces national capacity to produce timely and accurate child mortality estimates.

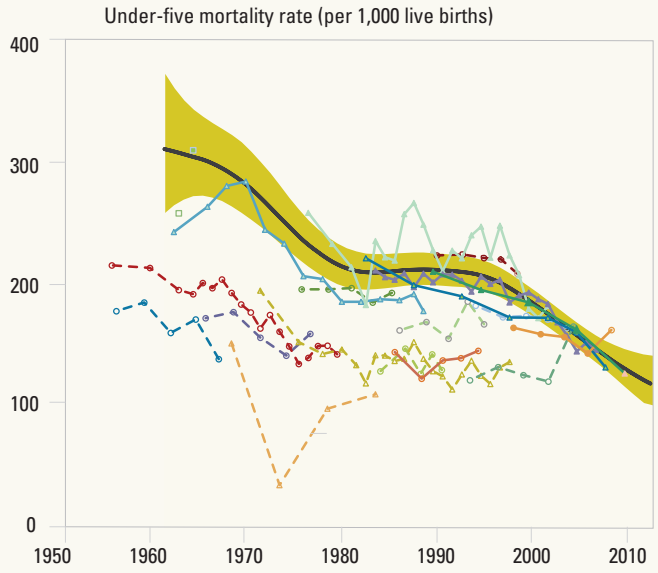
Led by UNICEF, UN IGME members include the World Health Organization, the World Bank and the United Nations Population Division of the Department of Economic and Social Affairs. The UN IGME's Technical Advisory Group consists of leading academic scholars and independent experts in demography and biostatistics. This expert group advises on estimation methods, technical issues and strategies for data analysis and collection.

Child mortality estimates are updated annually, following the UN IGME's review of the latest available quality data. These estimates are disseminated throughout UNICEF flagship publications and the Secretary-General's Millennium Development Goals report, as well as publications produced by other UN agencies, governments and donors.

Child mortality estimation is challenging in the absence of well-functioning vital registration systems, which many developing countries lack. Data sources often suffer from sampling or non-sampling errors, such as misreporting of age, and underreporting of child deaths. The UN IGME assesses the quality of underlying data sources and adjusts data when necessary. To allow for added comparability, it also generates estimates with uncertainty bounds.

The UN IGME publishes its estimates and the underlying data for all countries in its child mortality estimation database, CME Info, accessible at www.childmortality.org. CME Info is a comprehensive data portal on child mortality widely used by governments, UN agencies, donors, researchers and the general public. Launched by UNICEF as an initiative to publish the latest child mortality estimates and disclose the underlying data, CME Info serves as a platform for UNICEF, the UN IGME and national partners to collaborate in harmonizing and disseminating child mortality estimates. Using leading-edge information technology, it allows users to visualize how national data can be used to generate child mortality trend estimates. UNICEF hosts, maintains and financially supports CME Info.

Country example: wide variations in the under-five mortality rates from different data sources, Nigeria



Note: the black line is the IGME estimates; the gold range is the uncertainty range of the estimates; other lines are data from surveys.

Source: UN IGME 2014.

League table of neonatal mortality rates, 2013

Africa

Countries and areas	Neonatal mortality rate (NMR)	NMR rank	% Decline in NMR 1990–2013	% Share of neonatal deaths in under-5 deaths in 2013
Angola	**47**	1	14	28
Somalia	**46**	2	11	32
Guinea-Bissau	**44**	3	27	36
Lesotho	**44**	3	2	45
Sierra Leone	**44**	3	23	28
Central African Republic	**43**	6	11	31
Chad	**40**	8	18	27
Mali	**40**	8	32	34
South Sudan	**39**	10	40	40
Zimbabwe	**39**	10	-26	45
Côte d'Ivoire	**38**	12	22	39
Democratic Republic of the Congo	**38**	12	20	33
Nigeria	**37**	14	28	33
Mauritania	**35**	16	15	39
Equatorial Guinea	**33**	17	31	35
Guinea	**33**	17	38	33
Comoros	**31**	19	25	40
Djibouti	**31**	19	28	45
Burundi	**30**	21	35	37
Mozambique	**30**	21	46	35
Sudan	**30**	21	27	39
Swaziland	**30**	21	-1	37
Togo	**30**	21	28	37
Ghana	**29**	26	26	38
Zambia	**29**	26	33	35
Cameroon	**28**	30	20	30
Ethiopia	**28**	30	50	43
Gambia	**28**	30	39	39
Niger	**28**	30	45	27
Benin	**27**	34	35	32
Burkina Faso	**27**	34	33	28
Kenya	**26**	36	20	37
Liberia	**26**	36	51	36
Botswana	**25**	39	0	54
Gabon	**23**	45	31	41
Malawi	**23**	45	54	34
Senegal	**23**	45	45	42
Namibia	**22**	50	24	44
Uganda	**22**	50	44	34
Madagascar	**21**	54	48	39
United Republic of Tanzania	**21**	54	52	41
Rwanda	**20**	56	48	39
Congo	**19**	59	35	40
Sao Tome and Principe	**19**	59	40	38
Eritrea	**18**	62	50	36
Morocco	**18**	62	50	60
South Africa	**15**	71	27	33
Algeria	**14**	75	38	56
Egypt	**12**	84	63	54
Cabo Verde	**11**	92	48	44
Libya	**9**	102	59	60
Mauritius	**9**	102	44	61
Seychelles	**9**	102	13	64
Tunisia	**9**	102	63	59

Asia

Countries and areas	Neonatal mortality rate (NMR)	NMR rank	% Decline in NMR 1990–2013	% Share of neonatal deaths in under-5 deaths in 2013
Pakistan	**42**	7	25	49
Afghanistan	**36**	15	29	37
India	**29**	26	43	56
Lao People's Democratic Republic	**29**	26	39	41
Myanmar	**26**	36	40	51
Bangladesh	**24**	41	56	59
Timor-Leste	**24**	41	51	44
Yemen	**24**	41	44	48
Nepal	**23**	45	57	57
Turkmenistan	**23**	45	28	42
Tajikistan	**22**	50	42	47
Iraq	**19**	59	28	55
Bhutan	**18**	62	58	50
Cambodia	**18**	62	53	47
Azerbaijan	**16**	67	51	47
Democratic People's Republic of Korea	**15**	71	30	55
Indonesia	**14**	75	53	48
Philippines	**14**	75	39	46
Uzbekistan	**14**	75	31	33
Kyrgyzstan	**13**	79	53	55
Mongolia	**13**	79	57	42
Viet Nam	**13**	79	44	53
State of Palestine	**12**	84	42	56
Jordan	**11**	92	42	60
Turkey	**11**	92	64	58
Armenia	**10**	96	61	60
Georgia	**10**	96	65	73
Iran (Islamic Republic of)	**10**	96	62	62
Kazakhstan	**9**	102	61	54
Saudi Arabia	**9**	102	57	56
China	**8**	111	69	61
Syrian Arab Republic	**8**	111	54	54
Thailand	**8**	111	58	60
Oman	**7**	123	65	59
Maldives	**6**	131	83	62
Sri Lanka	**6**	131	51	62
Brunei Darussalam	**5**	138	17	53
Kuwait	**5**	138	49	50
Lebanon	**5**	138	67	58
United Arab Emirates	**5**	138	48	59
Malaysia	**4**	148	47	52
Qatar	**4**	148	57	54
Bahrain	**2**	169	72	38
Cyprus	**2**	169	68	51
Israel	**2**	169	67	50
Republic of Korea	**2**	169	48	44
Japan	**1**	189	60	35
Singapore	**1**	189	73	40

Europe

Countries and areas	Neonatal mortality rate (NMR)	NMR rank	% Decline in NMR 1990–2013	% Share of neonatal deaths in under-5 deaths in 2013
Republic of Moldova	**8**	111	46	49
Albania	**7**	123	56	50
Romania	**7**	123	58	59
Bulgaria	**6**	131	47	55
Latvia	**5**	138	59	62
Russian Federation	**5**	138	64	52
Ukraine	**5**	138	45	47
Bosnia and Herzegovina	**4**	148	62	68
Hungary	**4**	148	72	59
Malta	**4**	148	46	64
Montenegro	**4**	148	67	66
Serbia	**4**	148	75	63
Slovakia	**4**	148	65	58
The former Yugoslav Republic of Macedonia	**4**	148	73	67
Croatia	**3**	158	67	61
Greece	**3**	158	70	61
Lithuania	**3**	158	71	55
Netherlands	**3**	158	45	65
Poland	**3**	158	73	60
Spain	**3**	158	62	61
Switzerland	**3**	158	21	72
United Kingdom	**3**	158	40	60
Austria	**2**	169	49	59
Belarus	**2**	169	69	46
Belgium	**2**	169	49	52
Czech Republic	**2**	169	78	58
Denmark	**2**	169	47	68
Estonia	**2**	169	86	50
France	**2**	169	36	55
Germany	**2**	169	41	57
Ireland	**2**	169	54	60
Italy	**2**	169	65	61
Monaco	**2**	169	55	100
Norway	**2**	169	61	57
Portugal	**2**	169	72	52
Slovenia	**2**	169	70	56
Sweden	**2**	169	56	53
Andorra	**1**	189	67	50
Finland	**1**	189	67	50
Iceland	**1**	189	72	40
Luxembourg	**1**	189	78	46
San Marino	**1**	189	73	0
Holy See	–	–	–	–
Liechtenstein	–	–	–	–

League table of neonatal mortality rates, 2013

Americas

Countries and areas	Neonatal mortality rate (NMR)	NMR rank	% Decline in NMR 1990-2013	% Share of neonatal deaths in under-5 deaths in 2013
Haiti	**25**	39	34	34
Guyana	**20**	56	31	53
Bolivia (Plurinational State of)	**18**	62	53	46
Dominican Republic	**16**	67	43	57
Guatemala	**15**	71	49	48
Trinidad and Tobago	**15**	71	26	71
Honduras	**12**	84	53	52
Nicaragua	**12**	84	54	49
Paraguay	**12**	84	44	56
Saint Vincent and the Grenadines	**12**	84	20	62
Suriname	**12**	84	44	54
Ecuador	**11**	92	51	47
Colombia	**10**	96	45	61
Jamaica	**10**	96	39	63
Saint Lucia	**9**	102	32	61
Barbados	**8**	111	18	56
Belize	**8**	111	51	47
Brazil	**8**	111	70	61
Dominica	**8**	111	31	75
Panama	**8**	111	37	47
Peru	**8**	111	70	48
Venezuela (Bolivarian Republic of)	**8**	111	44	56
Argentina	**7**	123	55	53
Bahamas	**7**	123	41	54
El Salvador	**7**	123	65	42
Mexico	**7**	123	62	45
Saint Kitts and Nevis	**7**	123	60	70
Costa Rica	**6**	131	29	67
Grenada	**6**	131	43	48
Uruguay	**6**	131	48	52
Antigua and Barbuda	**5**	138	60	50
Chile	**5**	138	40	60
United States	**4**	148	30	58
Canada	**3**	158	24	65
Cuba	**3**	158	59	47

Oceania

Countries and areas	Neonatal mortality rate (NMR)	NMR rank	% Decline in NMR 1990-2013	% Share of neonatal deaths in under-5 deaths in 2013
Papua New Guinea	**24**	41	22	39
Kiribati	**22**	50	28	37
Nauru	**20**	56	28	60
Marshall Islands	**16**	67	19	42
Micronesia (Federated States of)	**16**	67	27	43
Solomon Islands	**13**	79	18	44
Tuvalu	**13**	79	39	50
Niue	**12**	84	-63	0
Fiji	**10**	96	18	43
Palau	**9**	102	45	40
Vanuatu	**9**	102	43	50
Samoa	**8**	111	36	42
Tonga	**6**	131	43	53
Cook Islands	**5**	138	60	67
New Zealand	**3**	158	30	47
Australia	**2**	169	49	60

DEFINITIONS OF INDICATORS

Neonatal mortality rate (NMR) — Probability of dying in the first month of life, expressed per 1,000 live births.
NMR rank: Countries and areas are ranked in descending order of their NMRs. All calculations are based on unrounded numbers.

EXPLANATION OF SYMBOLS

– Data are not available

Source: UN IGME 2014.

2|The Promise: Reaching every newborn with quality care

2 | The promise: Reaching every newborn with quality care

KEEPING MOTHERS AND NEWBORNS ALIVE

No woman should die giving life. Nor should any mother endure pregnancy and childbirth, only to go through the agony of having her child born dead or watching the baby die minutes after birth. Yet, for countless women around the world, this scenario remains a tragic reality. Despite two decades of steady progress in saving mothers and newborns, every year an estimated 289,000 mothers die, mainly due to inadequate care, during pregnancy and delivery.[1] The lack of sufficient quality care also contributes to an estimated 2.6 million stillbirths every year and claims the lives of 2.8 million babies in the first month of life.[2]

The statistics for maternal and newborn mortality are all the more staggering because so many of these deaths can be prevented. There is no debate about what is needed. Simple, proven, high-impact interventions — skilled care during the antenatal, labour and delivery and postnatal periods — protect the health and well-being of mother and baby. This care before, during and after birth also starts the child on the road to healthy physical, emotional and intellectual development. But despite this wealth of global knowledge, too many mothers and babies do not receive proven, cost-effective interventions.

This chapter presents the latest data and analysis on the coverage and quality of maternal and newborn care across the continuum from pregnancy through childbirth and the postnatal period.

An analysis of key interventions across 10 high-mortality countries shows that most mothers and newborn babies do not receive many, if any, of the crucial maternal and newborn care interventions. Moreover, even expectant mothers who have one or more antenatal visits with a skilled health professional, or a skilled attendant at birth, still do not receive a set of recommended interventions. In addition, there are sharp inequities in the coverage and quality of maternal and newborn care between the richest and poorest households.

Increasing the coverage of high-impact maternal and newborn interventions and the quality of care available to every mother and baby, everywhere, must remain at the forefront of the global agenda. Only by doing so will the world deliver on its promise to give every newborn the best possible start in life.

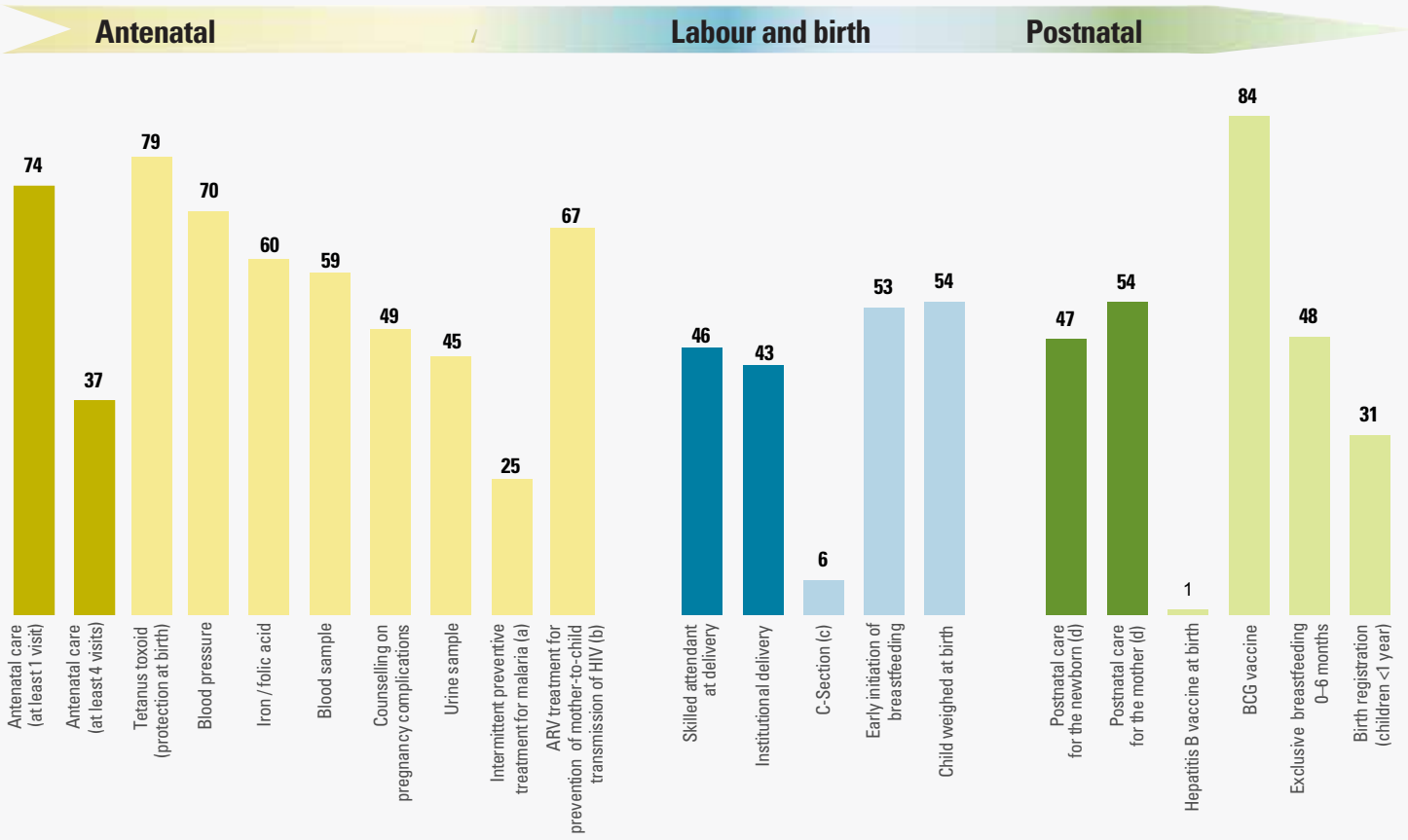
CRITICAL INTERVENTIONS THAT PROTECT MOTHERS AND NEWBORNS

The single most important factor in the decline of maternal and newborn deaths worldwide is access to quality care for mothers and newborns, which is increasingly commonplace in the world's richest communities but still too rare among the poorest. Globally, the coverage of maternal and newborn interventions varies tremendously across the continuum of care from pregnancy through the postnatal period (figure 23). In the group of least developed countries, (LDCs) while around three quarters of women (74 per cent) have at least one antenatal care visit with a skilled health professional, for example, less than half (46 per cent) of deliveries are attended by a doctor, nurse or midwife. Coverage of individual interventions ranges from a low of 25 per cent of pregnant women in malaria-endemic countries receiving intermittent preventive treatment for malaria to a high of 84 per cent of newborns receiving a BCG vaccine against tuberculosis. Notably, across the poorest countries, the coverage of these interventions remains relatively low, even among women in the richest households.

The interventions needed to save women and newborn girls and boys from dying of preventable causes are simple, affordable and based on evidence. This body of knowledge is outlined in the Every Newborn Action Plan (ENAP). As illustrated in box 3, the ENAP highlights a series of high-impact interventions that address the needs of women and newborns across the continuum of care, with an emphasis on care around the time of birth. This is important, given that preterm birth and complications during labour and delivery account for an estimated 60 per cent of all newborn deaths.[3]

FIG. 23 Coverage of key maternal and newborn interventions is generally low across the continuum of care in least developed countries

Coverage of maternal and newborn interventions across antenatal, childbirth and postnatal periods, least developed countries, 2007–2013 (%)



Estimates calculated for the group of LDCs unless otherwise stated.

Note: Indicators along the continuum of care cover different population groups, including mothers and babies at different stages, therefore they are based on different denominators. The denominator for indicators on ANC1 and ANC4 differs from the denominator for indicators on the content of ANC visits (light yellow bars) as the former refers to all women age 15-49 with a live birth in the two to five years preceding the survey and the latter refers to those who received antenatal care visits. Comparison should be made with caution.

Darker coloured bars refer to indicators related to contact with skilled health personnel or facility while lighter coloured bars refer to the content of the services provided.

(a) Refers to malaria-endemic countries in sub-Saharan Africa only.

(b) Calculated for all low- and middle-income countries. Data refer to 2013.

(c) Both very low and very high rates of caesarean section can signal a problem, but the optimum rate is unknown. Caesarean rates below 5 per cent may indicate that not all women in need receive an emergency c-section. See Figure 34.

(d) Unweighted average of coverage of postnatal care for newborns (22 countries) and mothers (42 countries), spanning across low- and middle-income countries with available data.

Source: UNICEF global databases 2014, based on MICS and DHS and other national sources. Data on ARV for PMTCT is from UNAIDS, UNICEF and WHO, Global AIDS Response Progress Reporting, and UNAIDS HIV and AIDS estimates, July 2014. Data on postnatal care for newborns and mothers compiled by Saving Newborn Lives, as presented in *Countdown to 2015 Report* (2014) based on national household surveys.

BOX 3| EVERY NEWBORN ACTION PLAN

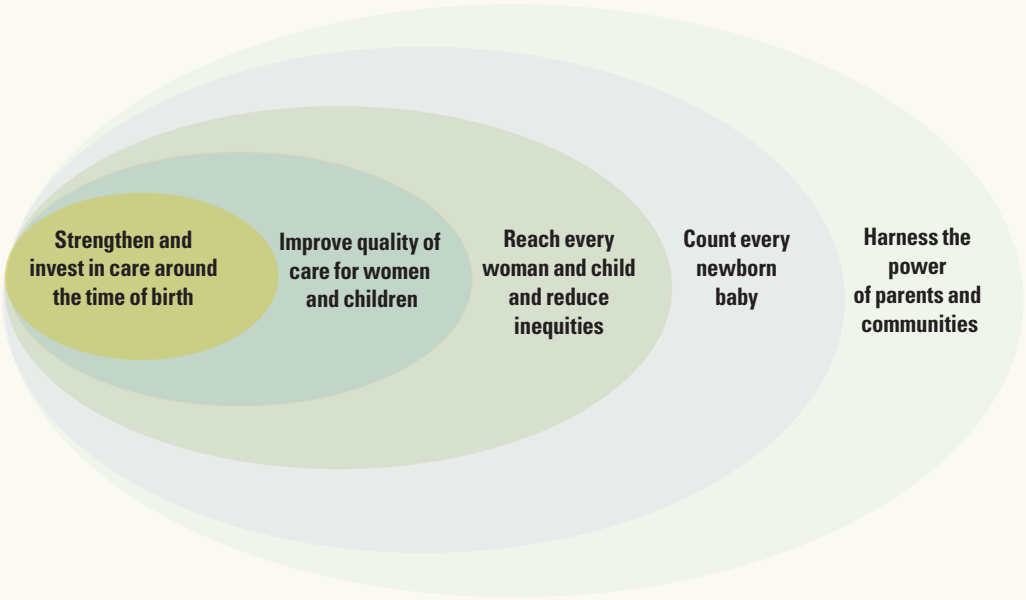
In line with the goals of *A Promise Renewed*, the Every Newborn Action Plan (ENAP)[1] proposes five strategic objectives (see figure A) for achieving two clear and measurable targets:

1) **Ending preventable newborn deaths:** By 2035, all countries reach a national target of 10 or fewer newborn deaths per 1,000 live births and continue to reduce death and disability;
2) **Ending preventable stillbirths:** By 2035, all countries reach the target of 10 or fewer stillbirths per 1,000 total births and continue to narrow gaps in equity.

Developed under the leadership of WHO and UNICEF, and endorsed by Member States at the 67th World Health Assembly in May 2014, the ENAP recommends the integrated delivery of high-impact interventions across the full continuum of maternal and newborn care, including care during labour, newborn care during the first week of life, and care for small and sick newborns (see figure B). Evidence shows that if these life-saving interventions are implemented at sufficient scale and with adequate quality, they can save the lives of millions of women and newborns around the world.

For an estimated additional cost of US $1.15 per capita, the ENAP's strategies generate triple return on investments in maternal and newborn care, saving an estimated 3 million women, newborns and stillbirths by 2025. These are women and children who would otherwise die in the 75 countries that carry the greatest share of global maternal and newborn mortality. Quality of care and equity are critical to optimizing the returns on investments in the ENAP, as are the principles of country leadership, human rights, accountability and innovation.

FIG. A Every Newborn Action Plan: Five strategic objectives



- Effective care at time around labour, childbirth, and the first days after birth has the highest effect on stillbirth, newborn, and maternal mortality.
- Quality care along the continuum of care, delivered by skilled health-care workers with access to essential commodities, including family planning.
- Universal coverage to expand access to and use of interventions for the most vulnerable and hardest to reach populations.
- Data for action and to achieve equity, including birth and death registration, health service performance data, and mortality audits with response.
- Parents, families, and communities that are empowered and engaged to demand quality care and not accept preventable newborn and maternal deaths.

Source: Mason et al. 'From evidence to action to deliver a healthy start for the next generation'. The Lancet, Volume 384, Issue 9941, Pages 455 - 467, 2 August 2014

FIG. B Packages of interventions in the continuum of care

Focus of the *Every Newborn* action plan

The time around birth results in the majority of maternal and newborn deaths and stillbirths as well as human capital loss. These packages have the highest impact yet some of the lowest coverage of equitable and quality care across the continuum.

REFERRAL AND TERTIARY LEVEL FACILITY	Reproductive health, including family planning	Management of pregnancy complications	Skilled care at birth	Essential newborn care Emergency care of small and sick newborns	Hospital care of childhood illness
FIRST AND SECONDARY LEVEL FACILITY	Reproductive health, including family planning	Pregnancy care	Skilled care at birth Basic emergency obstetric and newborn care	Essential newborn care Postnatal visits Care of small and sick newborns	Prevention and management of childhood illness
COMMUNITY	Adolescent and pre-conception health care and nutrition Gender violence prevention	Counselling and birth preparedness	Home birth with skilled care and clean practices	Essential newborn care Postnatal home visits for mothers and newborns	Ongoing care for the child at home

INTERSECTORAL: Improved living and working conditions, including housing, water and sanitation, and nutrition; education and empowerment, especially of girls; folic acid fortification; safe and healthy work environments for women and pregnant women

ADOLESCENCE AND BEFORE PREGNANCY | **PREGNANCY** | **LABOUR AND BIRTH** | **LABOUR, BIRTH AND FIRST WEEK** | **POSTNATAL** | **CHILD**

3 MILLION LIVES SAVED EACH YEAR

With an additional investment of US$ 1.15 per capita.

Source: Mason et al. 'From evidence to action to deliver a healthy start for the next generation'. The Lancet, Volume 384, Issue 9941, Pages 455 - 467, 2 August 2014

THE ANTENATAL PERIOD: A CRUCIAL TIME FOR SKILLED HEALTH CARE

Regular, high-quality monitoring throughout pregnancy is an important step towards delivering a healthy baby. Through careful, periodic checks of the expectant mother, a skilled health care professional can detect and address risks such as inadequate foetal growth and other issues that raise the likelihood of preterm birth and jeopardize the baby's health.

As recommended by WHO, every pregnant woman should receive at least four antenatal care visits with a skilled health professional — a doctor, nurse or midwife. These visits provide an opportunity for the health care provider to administer a series of interventions to ensure the safe delivery of a healthy baby.

Antenatal check-ups should include, at minimum, screening for maternal illnesses and infections (urine and blood tests), hypertensive disorders (blood pressure assessment) and anaemia (blood test); consumption of iron and folic acid to prevent maternal anaemia and serious birth defects respectively; tetanus immunization; counselling on family planning, birth and emergency preparedness; smoking cessation; prevention and management of HIV for children born to women living with HIV, including antiretroviral treatment (ART) for HIV infected children and lifelong ART for their mother's own health. In malaria-endemic countries an additional intervention is the prevention and management of malaria with insecticide-treated mosquito nets and antimalarial medicine.[4]

Taken together, the data on the coverage of these core maternal and newborn interventions serve as the proxy for assessing quality of antenatal care. A woman's prospects for a safe and healthy pregnancy increase dramatically when she receives the full set of interventions during routine antenatal care.[5]

Far too many women and newborns miss out on antenatal care

Globally, 83 per cent of pregnant women had at least one antenatal care visit with a skilled health provider (referred to as ANC1) in 2012 (figure 24). Yet, only half (53 per cent) had the recommended minimum of four antenatal visits (ANC4). In the least developed countries, 74 per cent of pregnant women reported at least one antenatal care visit, and just 37 per cent reported four or more visits.

Since 1990, global progress in antenatal care coverage has been modest, with an average increase of only 15 percentage points in ANC4, from 37 per cent to 52 per cent. Between 1990 and 2012, only East Asia and the Pacific saw a significant increase in ANC4, with the percentage of pregnant women who attended four or more antenatal care visits increasing from 45 per cent to 80 per cent. Latin America and the Caribbean, the region with the highest coverage in ANC4, also improved coverage, with rates rising from 70 per cent in 1990 to 90 per cent in 2012.[6]

BOX 4| QUALITY DATA: STRENGTHENING ACCOUNTABILITY FOR WOMEN AND NEWBORNS HEALTH

A Promise Renewed is anchored in the principle that bold, ambitious targets for maternal, newborn and child survival are achievable when policymakers demonstrate leadership and accountability in equal measure, along with quality data on levels and trends in child mortality. Without these data, it is difficult, if not impossible, for policymakers to formulate evidence-based strategies, such as the ENAP, and demonstrate progress against costed-targets. Yet, a mere 60 countries have in place either viable or complete vital registration systems.[1]

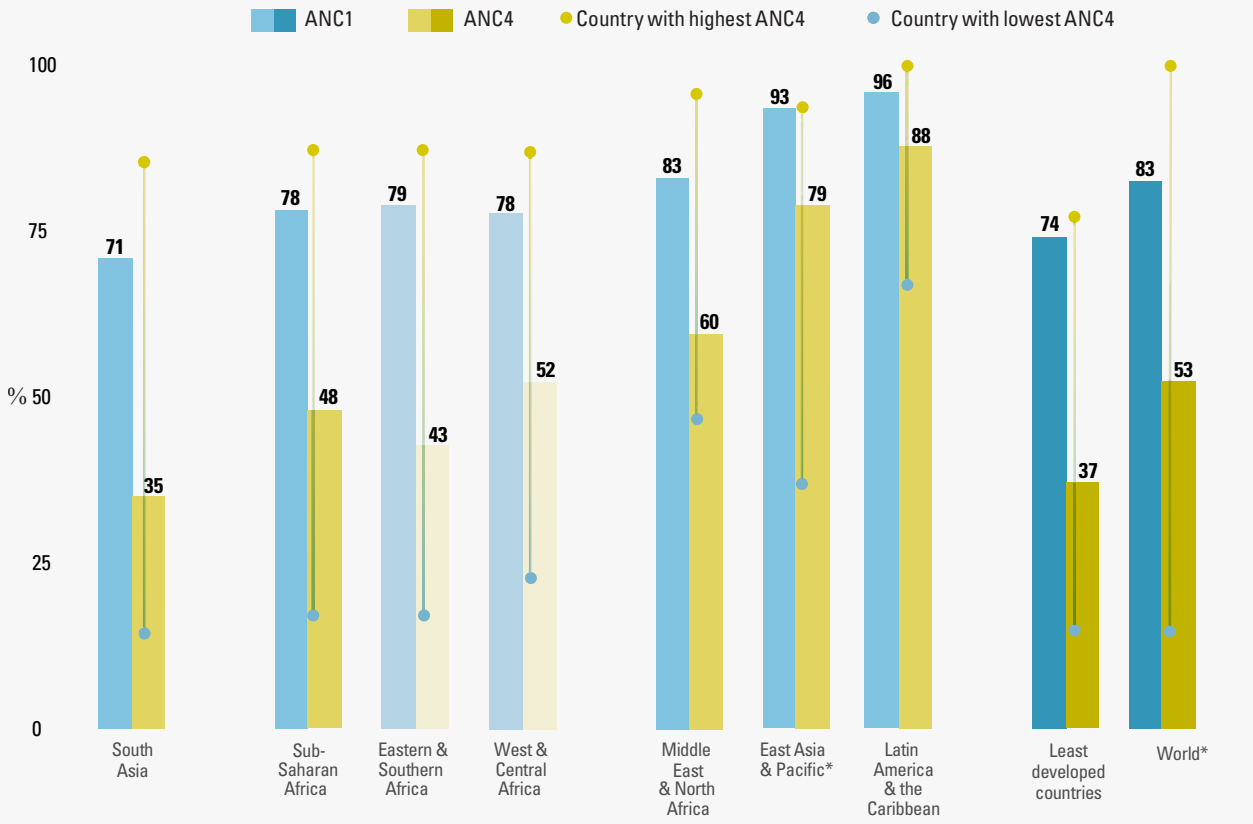
Despite continuing data gaps, a wealth of data have become available over the last couple of decades. Standardized household surveys, such as the UNICEF-supported MICS and the USAID-supported DHS provide high-quality data on mortality but also enable governments to track key indicators such antenatal care or delivery with a skilled birth attendant. Some national surveys have begun to collect data on newborn care practices, such as thermal care (immediate drying and wrapping, delayed first bath) and cord care (use of a sterile cutting tool, cord cleansing with antiseptic), although availability of these data are still limited.

For all of their multiple benefits, household surveys are not the best tool to provide insight into all aspects of care that women and children receive. For example, data on small and sick newborns — those at the highest risk of death —are ideally obtained from a health facility, yet few countries with high-neonatal mortality produce robust estimates.

To strengthen the scope of data collected through national surveys, MICS recently introduced targeted questions on the postnatal care received by mothers and newborns. These questions are designed to differentiate between the immediate after-birth care provided by health facilities or birth attendants, and the postnatal care visits provided in facilities or households. Answers to these questions will offer fresh new insight into the contact that mothers and newborns make with health care providers, helping policymakers to better gauge progress, correct gaps in service delivery and, ultimately, hold true on their commitments to reach national targets for maternal, newborn and child survival.[2]

FIG. 24 **Most pregnant women access skilled antenatal care at least once, but only about half receive the recommended minimum of four antenatal care visits**

Per cent of women aged 15–49 attended at least once during pregnancy by skilled health personnel (ANC1) and per cent attended by any provider at least four times (ANC4), by region, least developed countries and world, 2008–2012



*Data for China were available for the estimates of ANC1 but not for the estimates of ANC4.

Note: Estimates are based on a subset of countries with available data for the period 2008–2012. The ANC1 analysis includes 107 countries covering 80% of births worldwide, and the ANC4 analysis includes 81 countries covering 62% of births worldwide. For more information on regional estimates see notes on page 89.

Estimates represent data from countries covering at least 50% of regional births. Data coverage was insufficient to calculate the regional average for CEE/CIS.

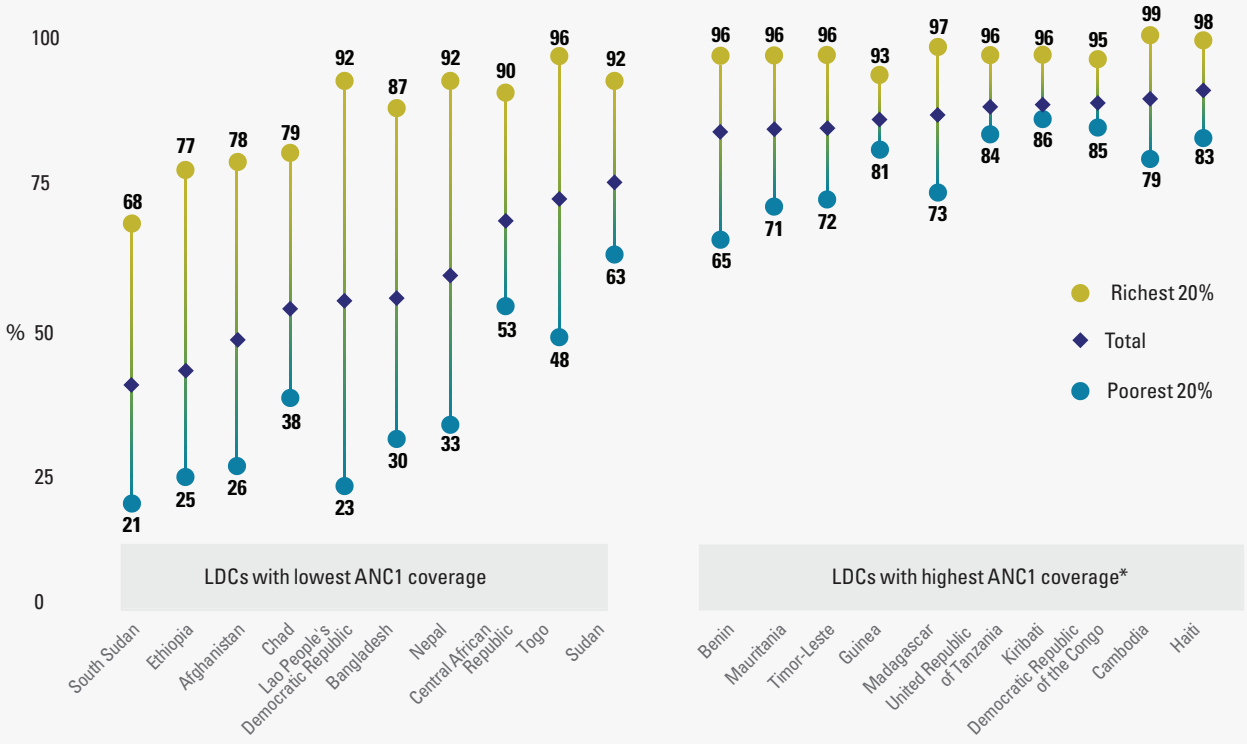
Source: UNICEF global databases 2014, based on MICS, DHS and other national sources.

Globally, almost all women (95 per cent) in the richest quintile receive at least one antenatal care visit with a skilled health provider, compared to only 61 per cent in the poorest quintile.[7] Not surprisingly, the coverage gap between rich and poor is particularly stark among countries with the lowest coverage of antenatal care (figure 25). South Asia registers the largest equity gap in ANC1 coverage, with 95 per cent of the richest quintile reporting at least one antenatal care visit, compared to 50 per cent in the poorest quintile.[8]

The global picture, then, is one of mothers who are missing out on the benefits of antenatal care. First, there are mothers — usually those in the poorest countries and the poorest households within those countries — who do not receive skilled antenatal care at all. Beyond that, there is a substantial proportion of expectant mothers who do see a skilled professional during pregnancy, but do not maintain contact with the health system for the recommended minimum number of visits.

FIG. 25 **Least developed countries with lowest coverage of antenatal care have the highest disparities in coverage between the poorest and the richest quintiles**

Percentage of women aged 15–49 attended at least once during pregnancy by skilled health personnel, selected least developed countries, by household wealth quintile, 2008–2012



*Countries categorized as LDCs with available data for the period 2008–2012 and ANC1 coverage level 90% or less. Bottom 10 and top 10 countries based on ANC1 coverage.

Source: UNICEF global databases 2014 based on MICS, DHS and other national sources.

Quality of care analysis: Visiting a skilled health care provider does not guarantee quality care

A visit with a skilled health care provider, either at home or in a facility, is only the first step towards quality antenatal care. Equally important is the health worker's ability to provide the full range of necessary interventions, an ability affected by structural weaknesses and lack of resources in health systems.

Far too little is known about the quality of care that mothers and newborns receive worldwide. In the absence of representative health facility data, household survey programmes such as MICS and DHS yield some insight into the basic aspects of care that pregnant women receive (see box 4). Drawing on these household survey data, an analysis conducted for this report across 10 countries with high neonatal mortality and available data illustrates the danger of focusing on ANC visits without also assessing quality of care, measured through the interventions provided during those visits. This analysis assesses whether women who saw a health care provider at least once during pregnancy received eight recommended interventions, which are a subset of the full package of interventions a pregnant woman should receive (see figure 26). The results of this analysis indicate that the quality of antenatal care women received varies dramatically by country and by intervention. While an average of 86 per cent of women across the 10 countries had their blood pressure checked, only 18 per cent of women in these malaria-endemic countries received preventive treatment for malaria.

FIG. 26 **Coverage of specific antenatal interventions is relatively low, especially for interventions requiring multiple visits, such as intermittent preventive treatment of malaria (IPTp)**

Percentage of women who received selected interventions during antenatal care visits, with skilled health personnel, 2007–2013

Country and survey year	Selected interventions received during antenatal care by women with at least one antenatal visit with skilled health personnel							
	Urine sample taken	Blood pressure measured	Blood sample taken	Took iron tablet /folic acid	Protected from tetanus	Received IPTp for malaria	Counselled on pregnancy complications	Counselled on HIV*
Burkina Faso (2010)	84	97	64	97	88	11	52	67
Congo (2011–2012)	94	98	93	89	76	26	63	61
Côte d'Ivoire (2011–2012)	82	91	74	83	69	19	35	59
Democratic Republic of the Congo (2007)	49	72	58	52	43	6	38	45
Guinea (2012)	72	85	58	93	86	24	35	25
Mozambique (2011)	56	86	87	58	58	8	63	92
Niger (2012)	32	70	43	94	81	41	56	44
Nigeria (2012–2013)	84	92	84	91	79	24	67	71
Sierra Leone (2008)	41	89	47	84	85	12	62	44
Zimbabwe (2010–2011)	56	86	87	58	58	8	63	92
Average	**65**	**86**	**70**	**80**	**72**	**18**	**53**	**60**
Sub-Saharan Africa	**52**	**72**	**63**	**62**	**74**	**22**	**50**	**..**
LDCs	**45**	**70**	**59**	**60**	**79**	**25**	**49**	**..**

Note: Figures in the table are recalculated from the DHS datasets and are based on women with a last birth within two years preceding the survey, who had at least one antenatal care visit within a skilled provider. Hence the estimates will differ from those presented in the DHS survey report. Countries were selected based on high neonatal mortality rates and available data.

*The current guidelines recommend that pregnant women are tested, receive the results of the test, and counselled. Counselling alone is insufficient to prevent mother-to-child transmission of HIV.

.. Data coverage was insufficient to calculate regional estimates.

Source: UNICEF analysis based on DHS data in 10 high neonatal mortality countries. The source for the aggregates for sub-Saharan Africa and LDCs is UNICEF global databases 2014 based on data for the periods 2008–2012.

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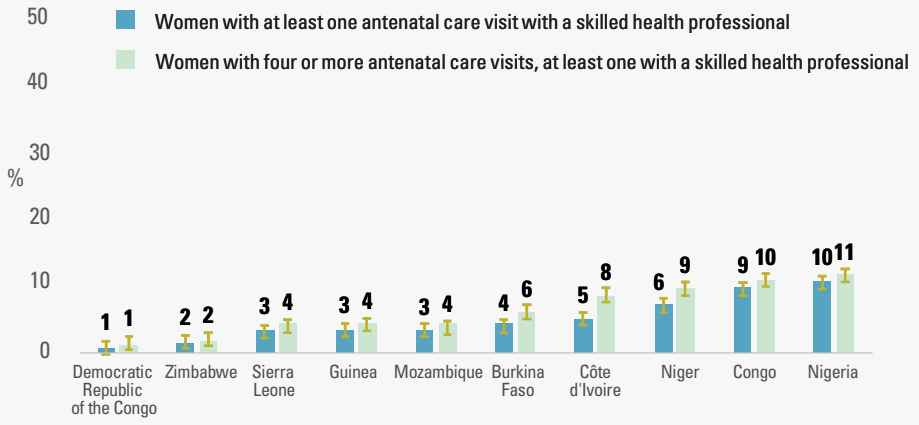
Expectant mothers who receive antenatal care are not receiving required interventions. Across the 10 countries, 10 per cent or fewer women who reported at least one antenatal care visit received all eight interventions (figure 27), signalling a catastrophic failure of the health system.

Of particular concern is that quality of care does not necessarily increase with repeat visits to a skilled health care provider. Among the women who received antenatal care on four or more occasions, only between 1 and 11 per cent received all eight interventions.

FIG. 27 Women receiving antenatal care do not get all the interventions they need

Percentage of women who received all eight selected interventions during antenatal care visits with skilled health personnel, 2007–2013



Note: All calculations based on women whose last birth was within the two years preceding the survey; selected countries with high neonatal mortality. The vertical lines represent 95% confidence intervals. Analysis based on eight selected interventions (see figure 26.)

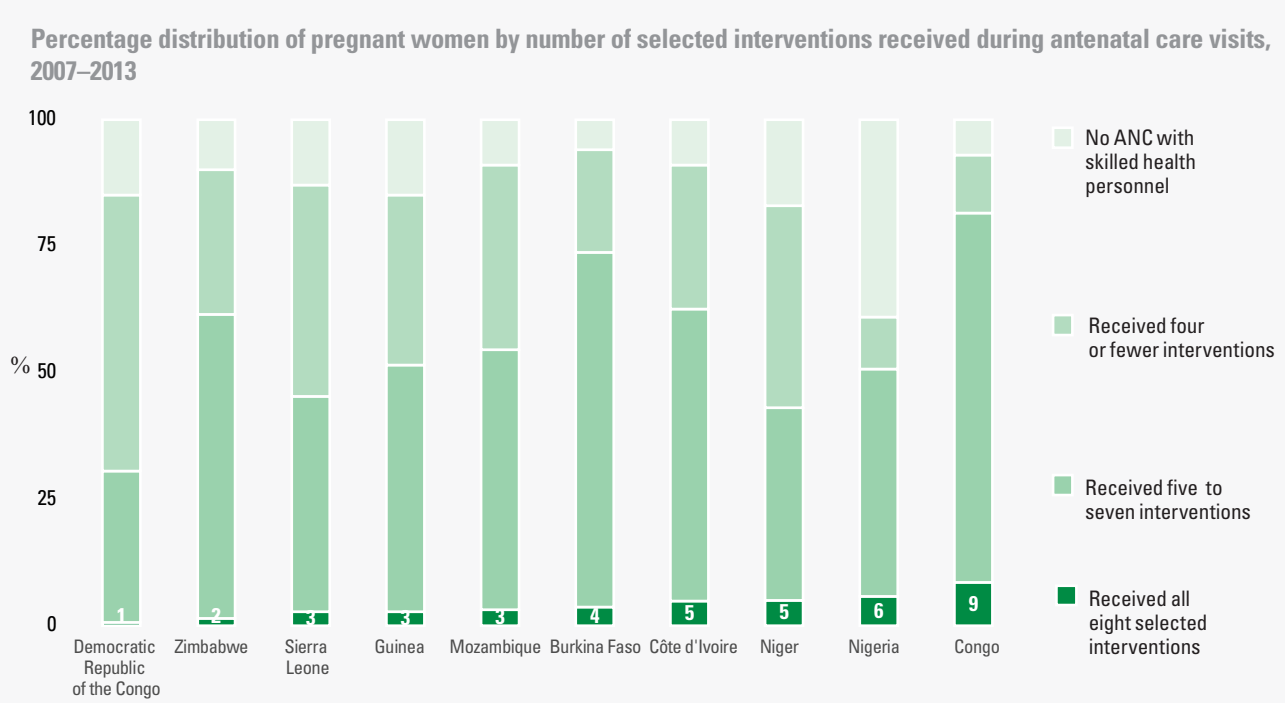
Source: UNICEF analysis based on DHS data.

The situation is especially grim given the fact that substantial proportions of women in these countries do not receive any antenatal care to begin with. So although 10 per cent of Nigerian women with one ANC visit receive the package of eight interventions, this translates into just 6 per cent of all pregnant women (figure 28). Indeed, among all pregnant women across the studied countries, substantial proportions receive half of the measured interventions or fewer. Thus, some of the most critical interventions are seldom made available.

Across all country contexts, women who are the poorest and least educated and who live in rural areas are the least likely to receive antenatal care. Even if these women manage to have a visit with a skilled health care provider, our analysis shows that they are less likely than the richer, more educated or urban women to receive all eight antenatal interventions.

When any woman, rich or poor, makes contact with a skilled health care provider yet fails to receive quality antenatal care, it represents a missed opportunity and a promise broken to protect the health and well-being of both the mother and her unborn child.

FIG. 28 **Too few pregnant women receive the quality of care they need during antenatal care visits**



Note: All calculations based on women whose last birth was within the two years preceding the survey; selected countries with high neonatal mortality. Analysis based on eight selected interventions (see figure 26).

Source: UNICEF analysis based on DHS data.

BOX 5| KEEPING AFRICA'S EXPECTANT MOTHERS AND NEWBORNS SAFE FROM MALARIA

Across much of sub-Saharan Africa, malaria remains endemic, posing grave danger to mothers and children and making the prevention of malaria a vital intervention for maternal and newborn care.

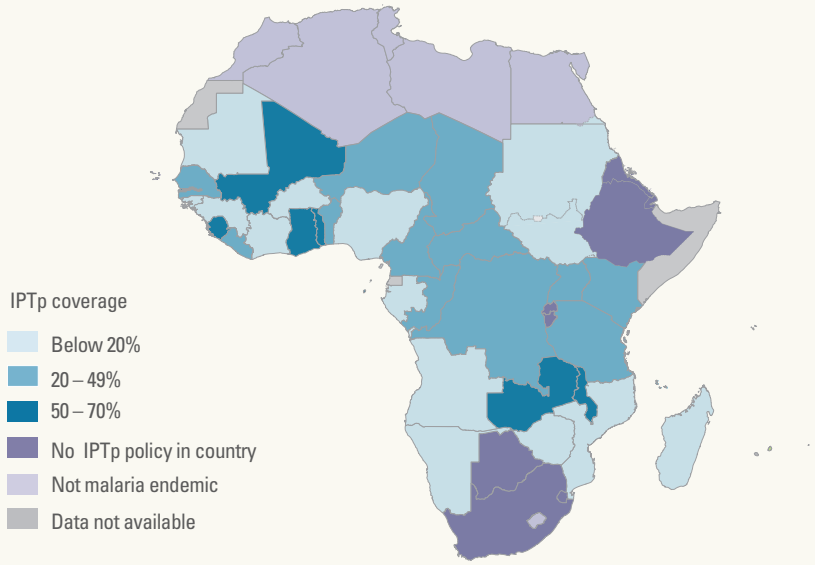
Each year, as many as 200,000 infants under age 1 die because of malaria in utero.[1] In malaria-endemic countries, an estimated 11 per cent of these neonatal deaths are attributable to low birthweight caused by malaria infections during the mother's pregnancy.[2]

In countries with moderate to high rates of malaria transmission, WHO recommends intermittent preventive treatment (IPTp) during pregnancy, with sulfadoxine-pyrimethamine (SP) dispensed to all pregnant women at each scheduled antenatal visit, starting in the second trimester.[3] Evidence shows that this simple, affordable intervention can reduce the risk of neonatal mortality by 32 per cent, and a newborn's low birthweight by a further 29 per cent.[4]

Delivering these life-saving interventions to the women and newborns who need them most requires a focused and determined effort to scale up coverage, especially in the most disadvantaged communities. Evidence shows that between 2009 and 2012, a sharp rise in the coverage of IPTp, coupled with an increase in the use of insecticide-treated mosquito nets, helped avert 94,000 deaths among newborns.[5] At current rates, however, just over 20 per cent of pregnant women living in malaria-endemic countries in sub-Saharan Africa receive IPTp.

Coverage of intermittent preventive treatment for malaria during pregnancy is below 50% in most malaria-endemic countries in sub-Saharan Africa

Percentage of women aged 15–49 who received intermittent preventive treatment for malaria during last pregnancy (at least two doses of SP/Fansidar, at least one during antenatal care visit), 2008–2012



This map is stylized and not to scale. It does not reflect a position by UNICEF on the legal status of any country or area or the delimitation of any frontiers. The final boundary between the Republic of the Sudan and the Republic of South Sudan has not yet been determined. The final status of the Abyei area has not yet been determined.

Source: UNICEF global databases 2014 based on MICS and DHS, and World Health Organization, *World Malaria Report 2013*, for information on IPTp policy and malaria endemicity.

QUALITY CARE DURING AND AFTER CHILDBIRTH — A MATTER OF LIFE AND DEATH

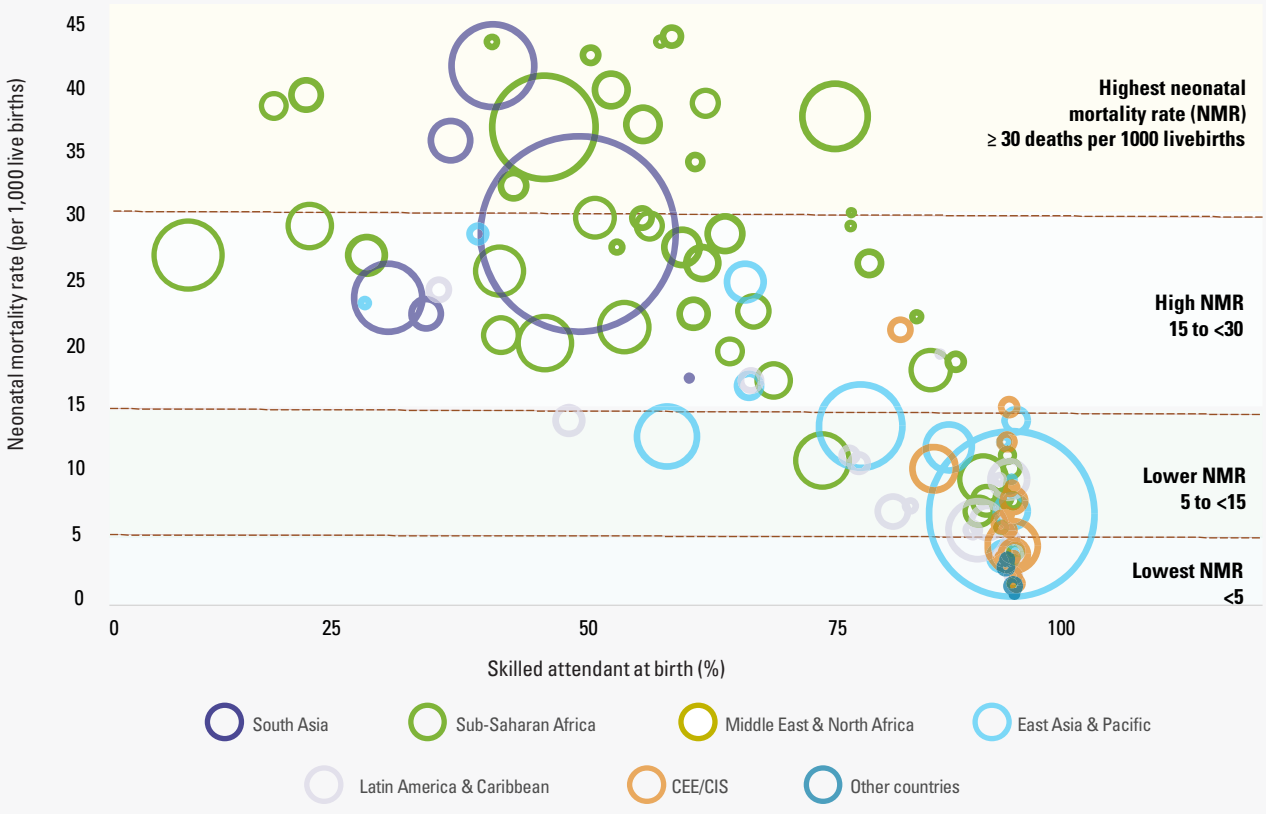
Complications during labour and delivery contribute to approximately one quarter of all neonatal deaths worldwide.[9] Many of these complications are easily preventable. What is needed is universal implementation of the full package of labour and delivery interventions, starting with skilled attendance at birth. Every birth should be attended by a competent doctor, nurse or midwife with proper supplies and equipment in order to assist the mother during labour and delivery, as well as provide immediate care for the newborn. In addition, this health provider must be able to recognize the warning signs of complications and be able to refer the mother and the newborn for emergency obstetric care if complications arise. Furthermore, once the mother comes into contact with a health care professional during delivery, this should be just one step in a continuum of care for mother and baby.

Data from around the world show how important skilled birth attendance is to reducing neonatal mortality. Experts agree that the risk of stillbirth and neonatal death falls by about 20 per cent if a skilled health provider is present to assist a woman in labour.[10, 11] Referring mothers facing complications to basic emergency obstetric care can avert approximately 40 per cent of childbirth-related neonatal deaths. In more serious cases, when the mother needs an emergency Caesarean section or a blood transfusion, she must have access to comprehensive emergency obstetric care facilities. Access to emergency care can reduce the stillbirth rate by 75 per cent.[12, 13]

Yet in many of the world's poorest countries, an alarmingly low proportion of women in labour are assisted by a skilled birth attendant. Even among those mothers who are attended by a doctor, nurse or midwife, the data suggest that they may not be receiving quality care. Although skilled attendance at birth is strongly associated with neonatal mortality rates, this association is much weaker among countries with high neonatal mortality (figure 29). This is likely the result of the poor quality of the health care systems available to support women in labour.

FIG. 29 **Skilled attendance at birth is strongly associated with neonatal mortality rates – except among high-mortality countries, where the association is much weaker**

Relationship between skilled attendance at birth and neonatal mortality



About the chart:

- Each bubble represents a country.
- The size of each bubble represents the number of estimated live births in each country in 2013.
- The horizontal axis shows the percentage of births attended by a skilled health provider (doctor, nurse, midwife).
- The vertical axis shows the neonatal mortality rate in the given country.
- For more information on regional classification see notes on page 89.

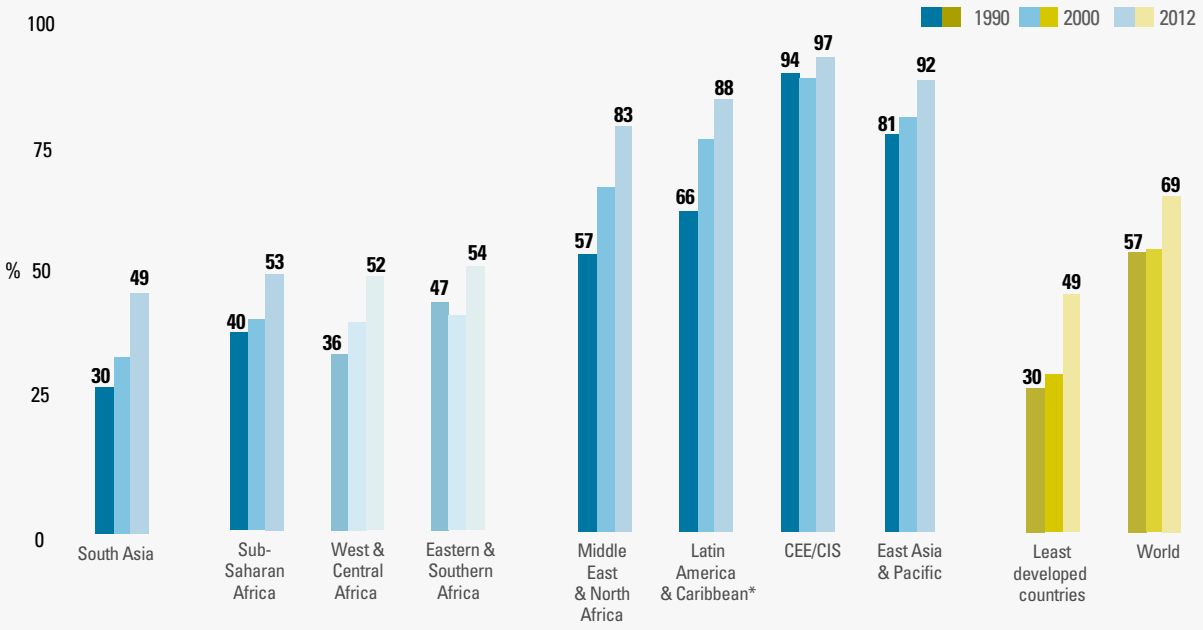
Source: UNICEF analysis based on UN IGME 2014, UNICEF global databases 2014 based on MICS, DHS, other national sources and UN Population Division.

Too many babies are born without the support of a skilled health professional

Although access to skilled birth attendance is improving, progress is far too slow. Between 1990 and 2012, the global rate of skilled attendance at delivery rose by a mere 12 percentage points – from 57 per cent of births to 69 per cent (figure 30). The good news is that progress has accelerated since 2000 across all regions, although coverage is still inadequate. In 2012, an estimated 44 million of the 138 million babies whose births were recorded worldwide were born without the assistance of a doctor, nurse or midwife.

FIG. 30 **Progress in provision of skilled birth attendance has accelerated since 2000 across all regions, but coverage is still inadequate**

Percentage of births attended by skilled health personnel, by region, least developed countries, and world, 1990, 2000, 2012



* Data for Latin America and the Caribbean refer to institutional deliveries.

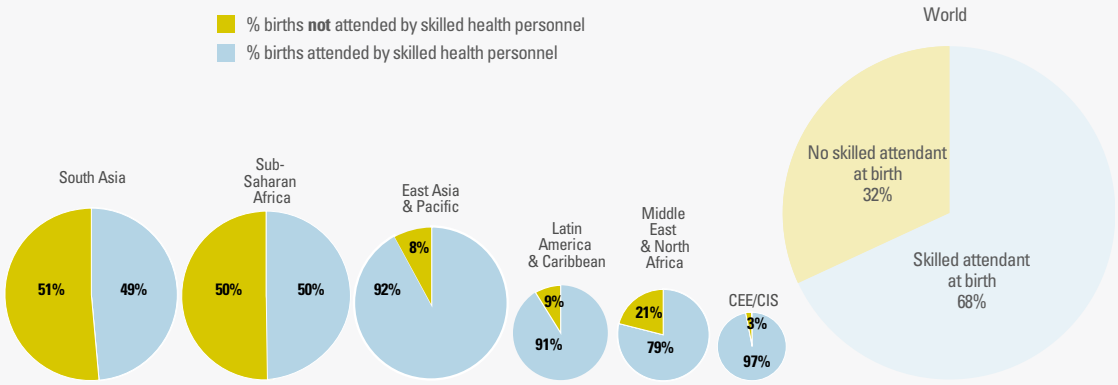
Note: Estimates are based on a subset of 114 countries with available trend data for 1990–2012 covering 75 per cent of births worldwide. Regional estimates represent data from countries covering at least 50% of regional births. For more information on regional estimates see notes on page 89.

Source: UNICEF global databases 2014 based on MICS, DHS, other national sources and UN Population Division.

It is unacceptable that approximately one in three babies enter the world without any medical support — but even this low global average conceals the large disparities between regions and among countries. Expectant mothers going into labour in sub-Saharan Africa and South Asia face the greatest challenge in accessing a skilled attendant. In 2012, over 80 per cent of the world's unassisted births were concentrated in these two regions, where only half of all women (50 per cent in sub-Saharan Africa, 49 per cent in South Asia) delivered with a skilled health attendant (figure 31).

FIG. 31 South Asia and sub-Saharan Africa, which have the largest number of births, are also the regions where fewer women receive skilled attendance at birth

Live births (millions) and percentage and number of births attended and not attended by skilled health personnel, by region and world, 2008–2012



	South Asia	Sub-Saharan Africa	East Asia & Pacific	Latin America & Caribbean	Middle East & North Africa	CEE/CIS	World
Live births (millions)	35.4	35.3	30.9	10.9	10.3	5.9	138.7
Births **not** attended by skilled personnel (millions)	18.2	17.7	2.4	0.9	2.2	0.2	44.2

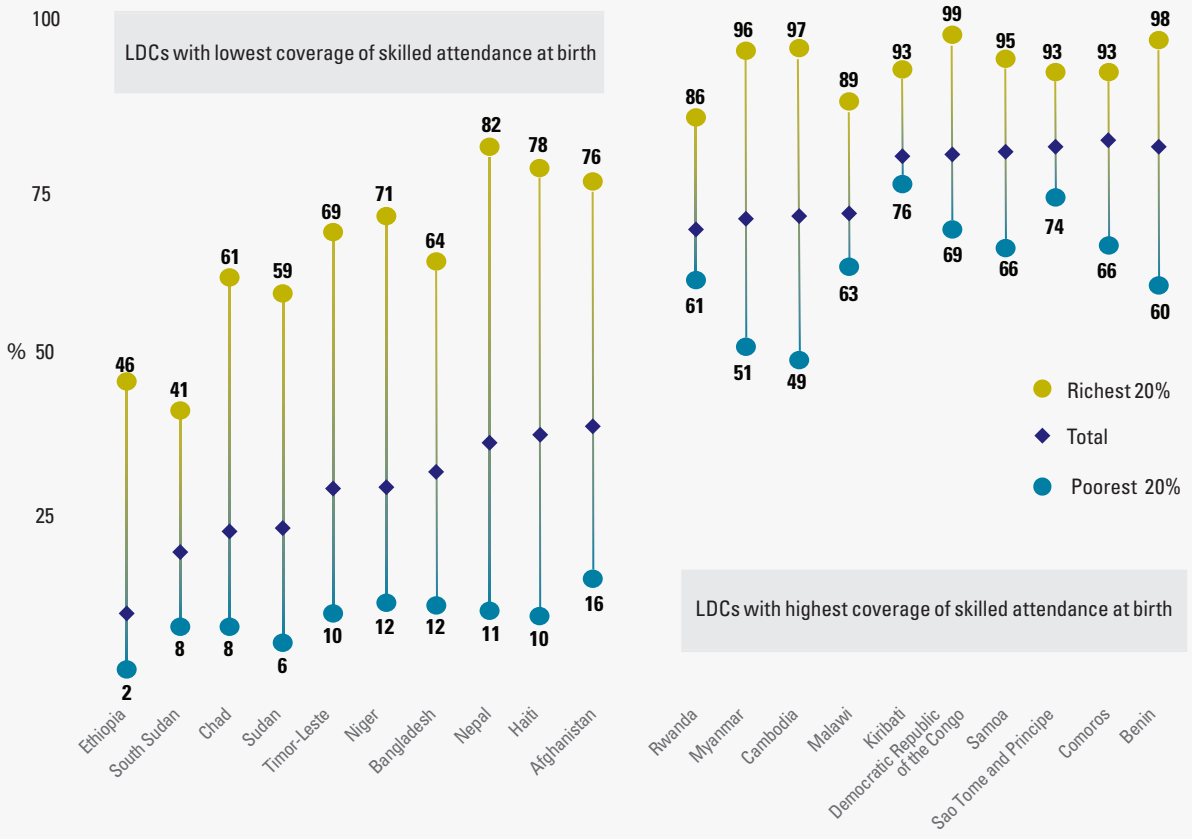
Note: The size of each pie chart represents the number of births in each region in 2013. Estimates are based on a subset of 125 countries with available data for the period 2008–2012 covering 86% of births worldwide. Regional estimates represent data from countries covering at least 50% of each region. For more information on regional estimates see notes on page 89.

Source: UNICEF global databases 2014 based on MICS, DHS, other national sources and UN Population Division.

Across all regions of the world, poor, rural and uneducated women face the greatest barriers to delivering with the help of a doctor, nurse or midwife. They also face the highest risk of maternal and newborn deaths. Inequities in access are high in the least developed countries, where the wealthiest women are almost three times as likely to deliver with a skilled attendant, compared to the poorest.[14] Furthermore, the inequities between richest and poorest are the greatest in countries with low coverage of skilled birth attendance (figure 32). These disparities are even more vast in terms of access to specialized forms of support, such as emergency obstetric and newborn care.

FIG. 32 **In countries with the lowest coverage, disparities in access to skilled birth attendance are wider between rich and poor**

Percentage of births attended by skilled health personnel, selected least developed countries, by household wealth quintile, 2008–2012



Note: Countries categorized as LDCs with available data for 2008–2012. Bottom 10 and top 10 countries based on national skilled attendance at birth' coverage.

Source: UNICEF global databases, 2014, based on MICS, DHS and other national sources.

Data on access to emergency obstetric care are incomplete but suggest low coverage

When complications arise during delivery, the lives of the mother and the baby depend on immediate access to emergency care. To increase the chances of saving both lives, international guidelines for maternal and newborn care recommend that countries have five emergency obstetric facilities for every 500,000 people, one of which should be a comprehensive facility.[15]

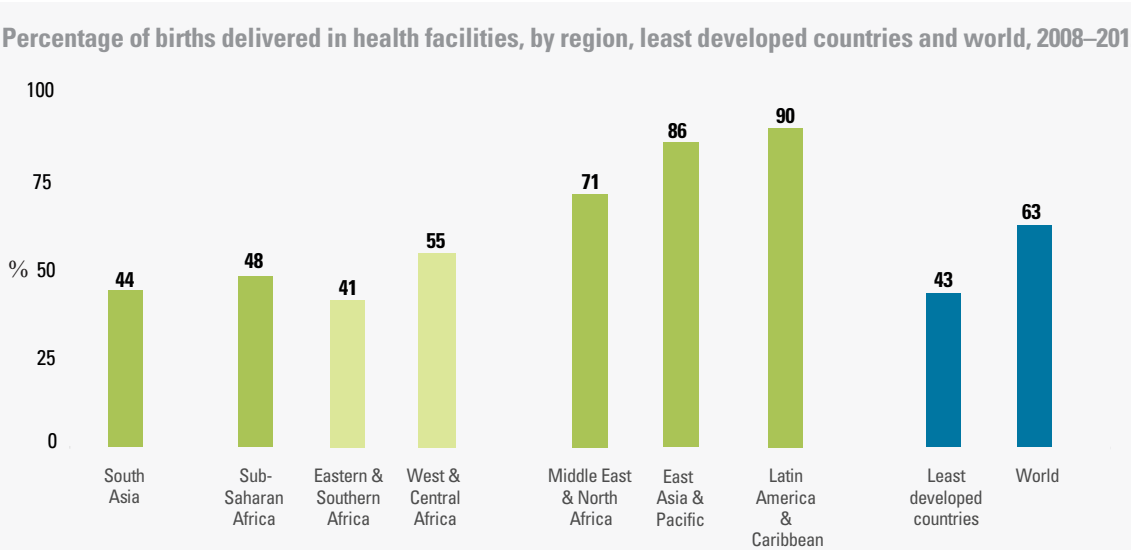
Incomplete data make it difficult to determine the degree of compliance with this recommendation. Available data indicate, however, that an alarming proportion of women with obstetric complications do not get life-saving emergency care. In 15 studied countries in sub-Saharan Africa and Asia, a low of 3 per cent and a high of only 56 per cent of women with obstetric complications were treated in an emergency obstetric and neonatal care facility.[16] This illustrates the lack of availability of these services for the women and newborns facing the highest risk.

In 14 of the 15 countries studied, at least half of pregnant women with direct obstetric complications did not receive care from any facility. They and their babies were left without appropriate treatment to face the highest risk of morbidity and mortality. It is imperative to scale up emergency obstetric and newborn services nationwide in every country to reach every mother and newborn and end preventable maternal and newborn death.

Data on delivery in health facilities, referred to as institutional delivery, are more widely available and can serve as a proxy indicator for measuring global access to basic emergency obstetric care. Similarly, the rate of Caesarean sections serves as a proxy for global access to comprehensive emergency obstetric care.[17]

It is encouraging to note that the number of institutional deliveries is increasing worldwide. The proportion of women delivering in a health facility rose 26 percentage points, from 37 per cent in 1990 to 63 per cent in 2012.[18] East Asia and the Pacific, South Asia and Latin America and the Caribbean registered the largest increases between 1990 and 2012. Yet in the two regions with the highest birth rates, fewer than half of births take place in a health facility: In South Asia the rate is 44 per cent and in sub-Saharan Africa, 48 per cent (figure 33).

FIG. 33 **In South Asia and sub-Saharan Africa, fewer than half of births take place in health facilities**

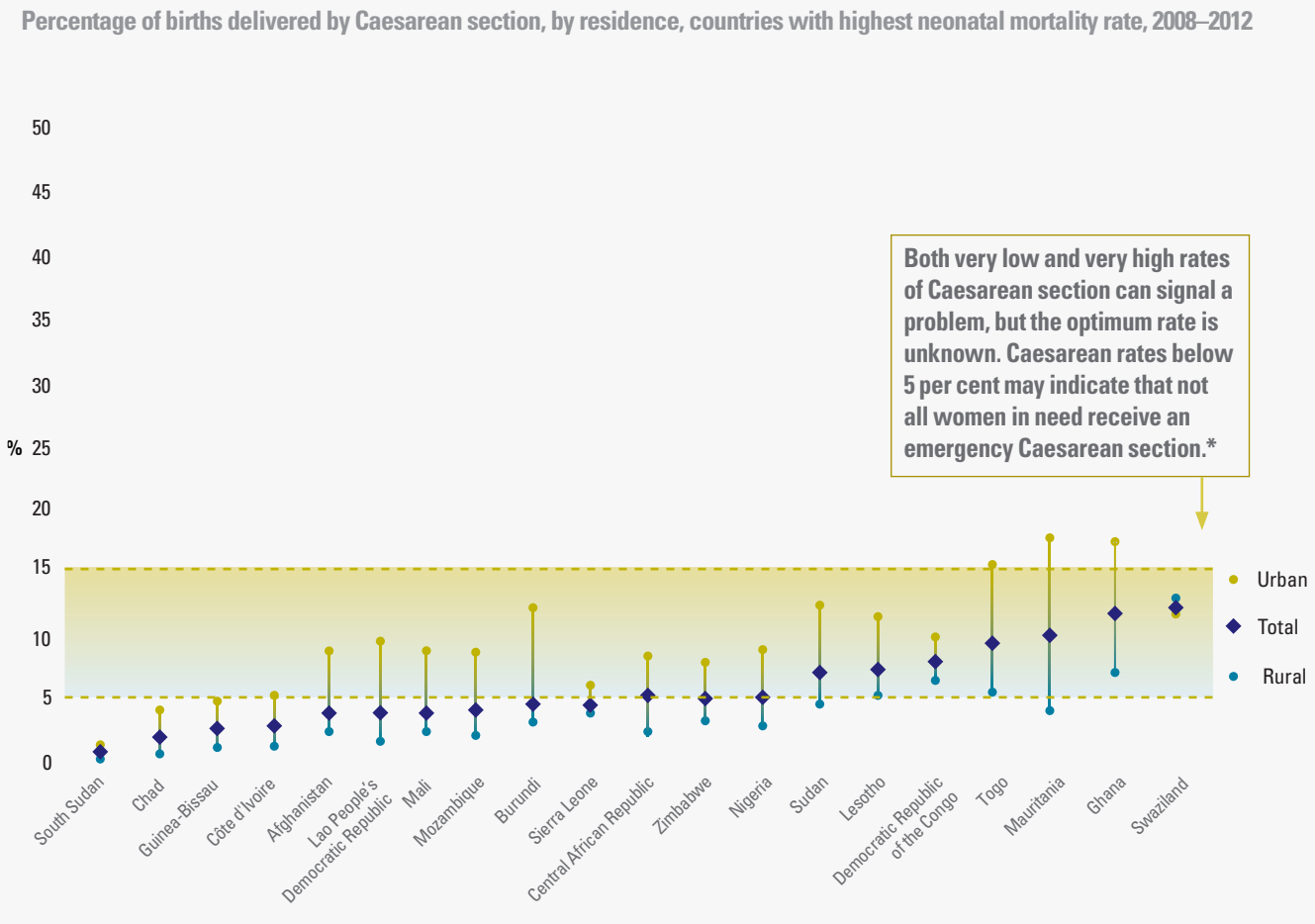


Note: Estimates are based on a subset of 108 countries with available data for the period 2008–2012 covering 82% of births worldwide. Regional estimates represent data from countries covering at least 50% of regional births. Data coverage was insufficient to calculate the regional average for CEE/CIS. For more information on regional estimates see notes on page 89.

Source: UNICEF global databases 2014, based on MICS, DHS and other national sources.

According to WHO, Caesarean section rates below 5 per cent may suggest poor access to comprehensive emergency care, while rates above 15 per cent may indicate unnecessary Caesarean sections are being performed.[19] Between 2008 and 2012, several countries with the highest neonatal mortality rates had a Caesarean section rate of less than 5 per cent, suggesting that some women who needed such emergency care did not receive it (figure 34). The data also show that in most of these countries, women living in rural areas are much less likely to receive this comprehensive emergency obstetric care than their urban counterparts.

FIG. 34 **Very low Caesarean section rates, particularly in rural areas, suggest inadequate emergency obstetric care in countries with high neonatal mortality**



Countries with highest neonatal mortality rate and available data on c-section for the period 2008–20012. Countries with less than 10,000 births are not included.

C-section rate is a proxy for access to Comprehensive Emergency Obstetric Care (CEmOC).

* Although a panel of experts at a meeting organized by WHO in 1985 concluded "there is no justification for any region to have a Caesarean section rate higher than 10-15 per cent", there is no empirical evidence for an optimum percentage or range of percentages. It should be noted that the proposed upper limit of 15 per cent is not a target to be achieved but rather a threshold not to be exceeded and that this recommendation refers to rates at population level. To enforce it at facility level would not be appropriate due to differences in the obstetric populations (WHO 2014).

Source: UNICEF global databases 2014, based on MICS, DHS and other national sources.

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Quality of care for newborns: an understudied topic

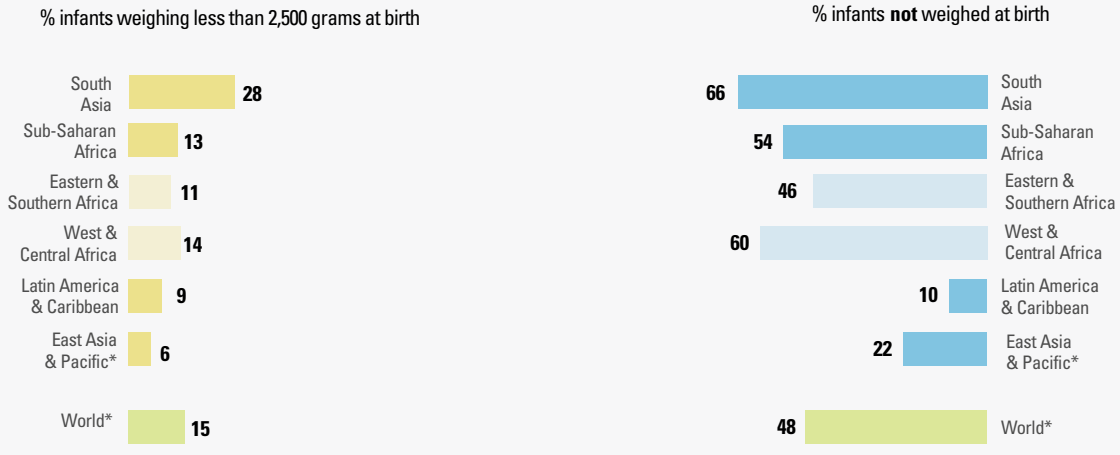
Despite the growing international consensus on the importance of quality of care during labour, delivery and the postnatal period, it remains an understudied topic. This is especially true in the countries that shoulder the world's greatest burden of neonatal mortality, which typically lack good quality facility data. The following is a global assessment of key newborn interventions that are typically measured in standardized household surveys.

Weighing the baby at birth: A baby's weight at birth is a strong indicator of maternal and newborn health and nutrition. Being undernourished in the womb increases the risk of death in the early months and years of a child's life. Undernourished babies who survive tend to have an impaired immune function and a higher risk of disease. They are likely to remain undernourished, with reduced muscle strength and cognitive abilities throughout their lives. As adults, they suffer a higher incidence of diabetes and heart disease.

Weighing babies at birth enables health care providers to identify newborns with low birthweights (less than 2500 grams) and to establish a baseline for monitoring their future growth. Globally, 15 per cent of babies are born with a low birthweight, and require immediate intensive care to set them on a trajectory of strong and rapid growth. Despite the uncontested importance of weighing babies at birth, in 2012 only half of newborns worldwide were weighed at birth. South Asia recorded the lowest average, with only an estimated one third of newborns weighed at birth, while in sub-Saharan Africa, slightly less than half of all newborns were weighed (figure 35).

FIG. 35 **Incidence of low birth weight is highest in South Asia and in regions where the fewest babies are weighed**

Percentage of infants weighing less than 2,500 grams at birth and percentage of infants not weighed at birth, by regions and world, 2008–2012



* Excludes China

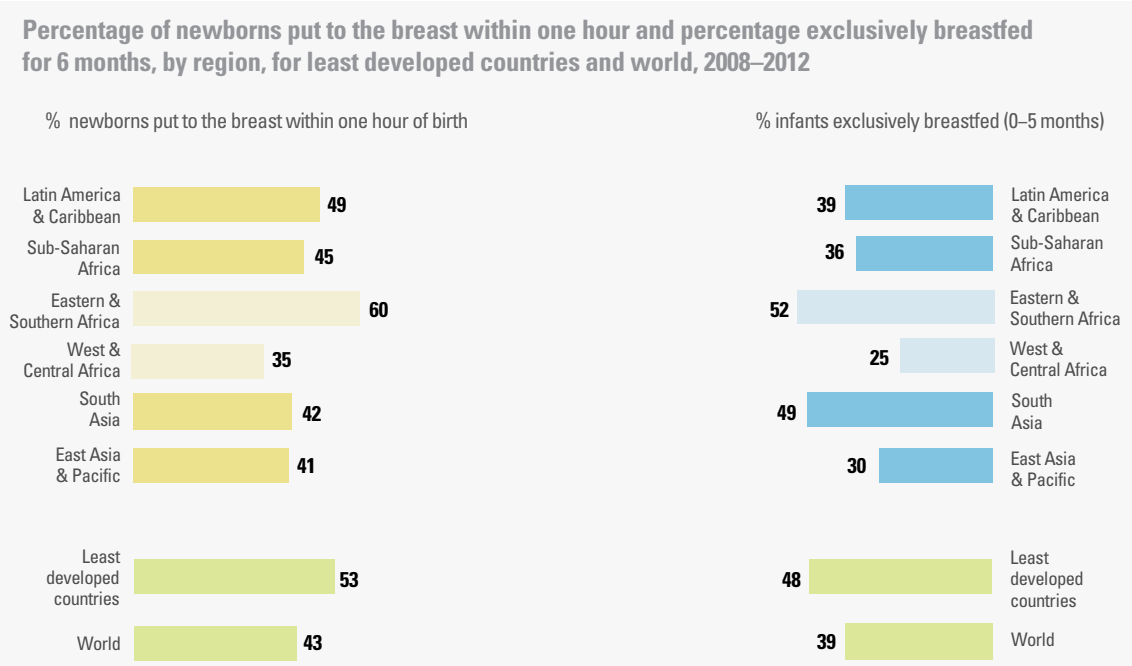
Note: Estimates are based on a subset of 84 countries (infants weighing less than 2,500 grams at birth) and 63 countries (infants not weighed at birth) with available data for the period 2008–2012, covering 65% and 60% of the births worldwide, respectively. Data for India and Indonesia refer to earlier years. Regional estimates represent data from countries covering at least 50% of regional births. Data coverage was insufficient to calculate the regional average for CEE/CIS and Middle East and Northern Africa. For more information on regional estimates see notes on page 89.

Source: UNICEF global databases 2014, based on MICS, DHS and other national sources.

Supporting immediate breastfeeding: Evidence shows that when mothers initiate breastfeeding within one hour of birth, the baby's risk of neonatal death is reduced by 44 per cent.[20] Breastfeeding supports infants' immune systems and protects them from diarrhoea and pneumonia early in life, and may protect them from chronic conditions, such as obesity and diabetes, later in life. Breastmilk alone is sufficient for a baby's nutritional needs—no supplementation is necessary during the first six months of life.

Recent data show that less than half of newborn babies (43 per cent) worldwide receive the benefits of immediate breastfeeding (figure 36). Global evidence shows that fewer than 40 per cent of babies breastfeed exclusively for the first six months of life.

FIG. 36 **Globally, fewer than half of newborns are put to the breast immediately after birth, and even lower proportions are exclusively breastfed during their first six months of life**



Note: Estimates are based on a subset of 67 countries (early initiation of breastfeeding) and 79 countries (exclusive breastfeeding) with available data for 2008–2012, covering 70% and 75% of the births worldwide respectively. Data for India refer to earlier years. Regional estimates represent data from countries covering at least 50 per cent of regional births. Data coverage was insufficient to calculate the regional average for CEE/CIS and Middle East and Northern Africa. For more information on regional estimates see notes on page 89.

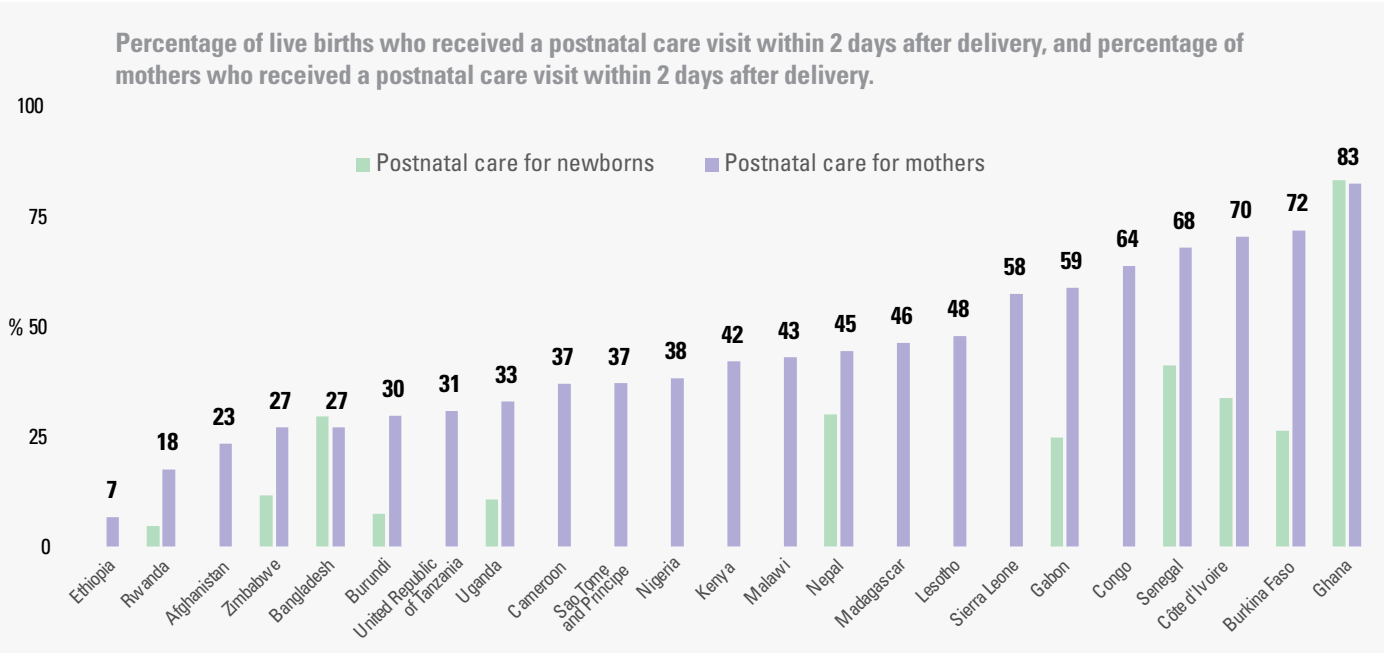
Source: UNICEF global databases 2014, based on MICS, DHS and other national sources.

Providing postnatal care for the mother and baby: Newborns face the greatest risk of death within the first few days of life. Of the 2.8 million newborns who died in 2013, more than one third (36 per cent) died on the day they were born.[21] To reduce this risk, WHO recommends postnatal care within 24 hours of birth, regardless of where the baby is born. Mothers and newborns should benefit from at least three additional postnatal care visits by a skilled provider, ideally on day 3, between day 7 and day 14, and again 6 weeks after birth.[22]

Postnatal care for the baby is an important opportunity to check for danger signs, such as insufficient feeding, lethargy, fever or jaundice. At the same time, mothers can receive advice on how to identify and respond to these symptoms, as well as on the benefits of exclusive breastfeeding and immunization.

Despite the critical importance of postnatal care for mother and baby, household survey programmes such as DHS and MICS only recently included indicators to track the coverage of this important component of care. In the limited number of low- and middle-income countries with data, only about half of mothers and newborns receive postnatal care, with significant variations across countries (figure 37).

FIG. 37 **In many countries, a majority of mothers and newborns are missing out on the benefits of postnatal care visits**



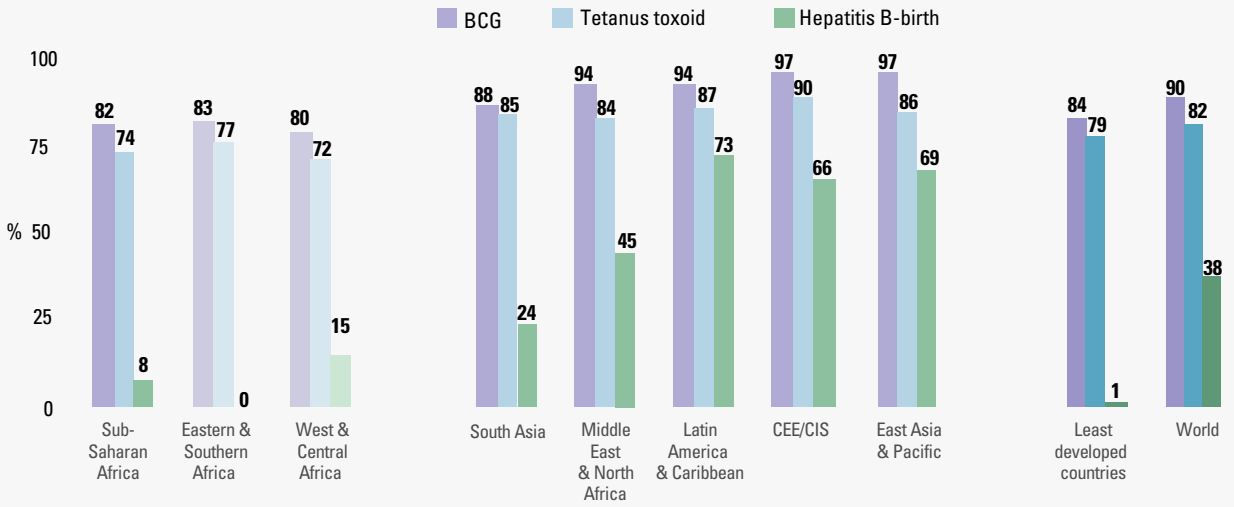
Source: UNICEF global databases 2014 and Saving Newborn Lives, as presented in *Countdown to 2015 Report* (2014) based on MICS and DHS.

Providing immunizations: Early immunization provides children with lifelong protection against life-threatening diseases. Vaccination coverage also serves as a reliable indicator of a functioning health care system. Enormous efforts have been made to expand immunization coverage in recent decades, and the results show: Throughout the world, the large majority of newborns receive protection from tuberculosis (90 per cent) and from neonatal tetanus (82 per cent) (figure 38). In 2009, WHO recommended giving all newborns a dose of hepatitis B within 24 hours of birth.[23] Many countries are still scaling up this intervention, which explains the variable rates of coverage across regions.

Infant testing for HIV: Babies born to mothers living with HIV need to be tested for HIV infection and, if positive, cared for appropriately. Yet, in low- and middle-income countries, in 2013, fewer than 40 per cent (37%) of HIV-exposed infants receive a virological test for HIV within the first two months of life. In South Asia, the testing rate is only 4 per cent, and it is only slightly better in West and Central Africa (10 per cent) and the Middle East and North Africa (19 per cent). In Eastern and Southern Africa, by contrast, 49 per cent of exposed infants are tested, reflecting the massive global effort to combat HIV in this high-burden region.[24]

FIG. 38 **Immunization coverage: BCG (tuberculosis) and tetanus toxoid immunization levels are relatively high while hepatitis B immunization at birth is much lower**

Percentage of newborns who received BCG, tetanus toxoid and hepatitis B vaccines at birth, by region, least developed countries and world, 2013



Notes: For information on regional estimates see notes on page 89.

BCG coverage: Percentage of live births who received bacille Calmette-Guérin (vaccine against tuberculosis)
Hepatitis B-birth coverage: Percentage of newborns who received Hepatitis B vaccine within 24 hours of birth.
Tetanus toxoid: Percentage of newborns protected at birth against tetanus.

Source: WHO and UNICEF estimates of national routine immunization coverage, 2013 revision (completed July 2014). Population data obtained from United Nations, Department of Economic and Social Affairs, Population Division (2013). *World Population Prospects: The 2012 Revision.*

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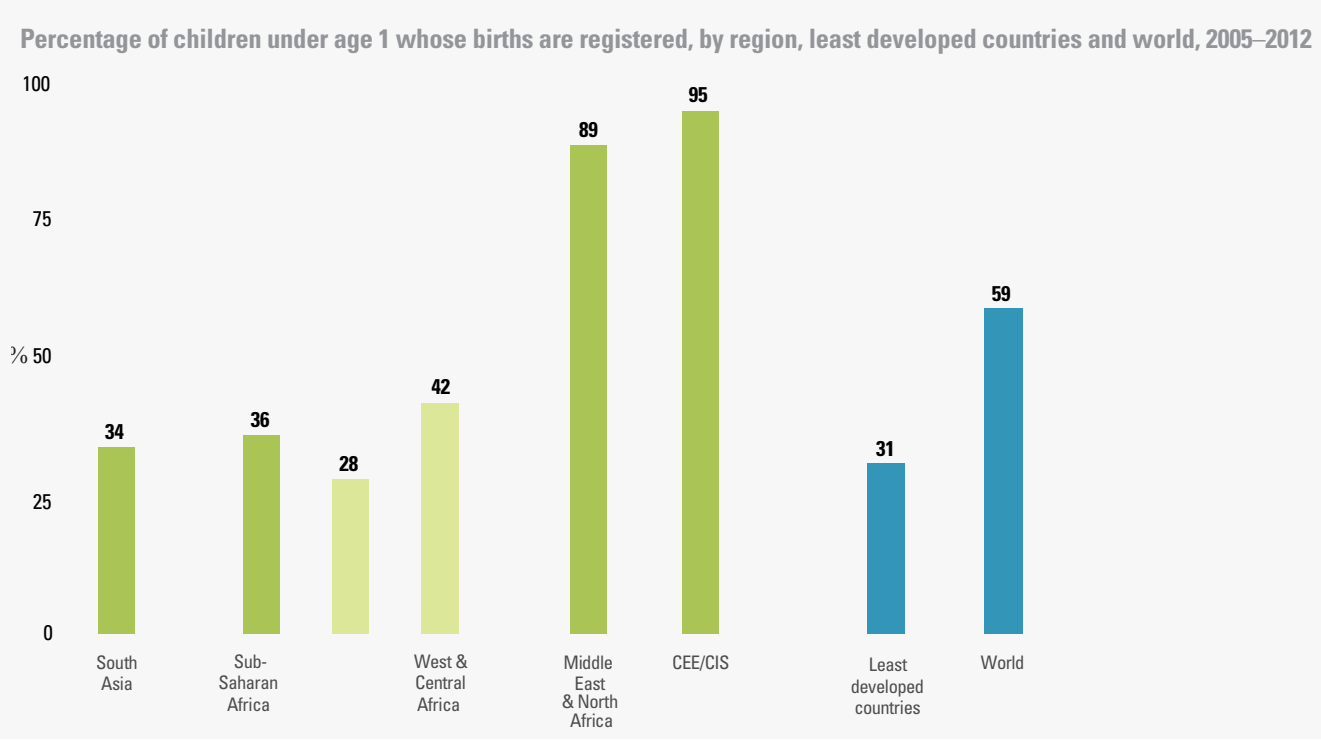
Birth registration—a ticket to citizenship: Birth registration opens the door to the privileges and safeguards of citizenship. Having a birth certificate helps children obtain the health, education, protection and other services to which they are entitled. The importance of counting every newborn is highlighted in the fifth objective of the ENAP, which calls on countries to increase investments in birth and death registration.

Among the many factors that influence national birth registration is families' knowledge of how to register a child; contact with the health system at the time of delivery provides an opportunity to communicate the importance of birth registration.[25] Despite global efforts to improve vital registration systems, a large proportion of births are unregistered and undocumented. Globally, only 59 per cent of children under age 1 are registered (figure 39). In South Asia and sub-Saharan Africa, only about one third of infants under age 1 are registered.

FIG. 39 **Only around a third of infants are registered within their first year of life in South Asia and sub-Saharan Africa**



Notes: Estimates are based on a subset of 138 countries with available data for the period 2005–2012 covering 73% of the global population of children under age 1. Regional estimates represent data from countries covering at least 50% of children in each region. Data coverage was insufficient to calculate a regional estimate for Latin America and the Caribbean and for East Asia and the Pacific (due to lack of comparable data on birth registration for China). For information on regional estimates see notes on page 89.

Source: UNICEF global databases, 2013, based on DHS, MICS, censuses and vital registration systems and other national sources, 2005–2012.

Quality of care during the period after birth: coverage of interventions for the newborn varies widely and is insufficient everywhere

In this report the quality of care analysis for the time after birth is based on 10 countries with high neonatal mortality with data available on 7 key interventions (a subset of the full package of interventions that should be received by the newborn soon after birth). In these countries, many millions of women and babies cannot access even the most basic, cost-effective interventions in the first hours and days after birth.[26] The prospects for quality postnatal care are slim, even for women who give birth in the presence of a skilled health care professional.

The analysis shows that the coverage of individual interventions varies widely (figure 40). For instance, on average fewer than 30 per cent of newborns delivered with skilled birth attendance in these countries received the recommended postnatal health check within 48 hours of birth, while at least 8 in 10 newborns each are weighed at birth, received BCG vaccination and received first polio vaccination.

FIG. 40 **Coverage of selected postnatal care interventions is low in countries with high neonatal mortality**

Percentage of mothers or newborns who received selected postnatal interventions, 2008–2013

Country and survey year	Selected interventions received for births attended by skilled health professional						
	Newborn weighed at birth	Early initiation of breastfeeding	No prelacteal feed	BCG vaccination	First polio vaccination	Postnatal health check for the newborn within two days	Postnatal health check for the mother within two days
Burkina Faso (2010)	97	45	70	93	92	31	88
Burundi (2010)	90	74	91	93	87	8	42
Congo (2011–2012)	97	24	60	90	78	29	70
Côte d'Ivoire (2011–2012)	95	31	38	85	79	37	89
Guinea (2012)	84	16	48	87	82	40	63
Lesotho (2009)	97	52	74	92	84	5	69
Niger (2012)	83	69	58	81	70	25	79
Nigeria (2012–2013)	53	40	52	76	70	28	76
Pakistan (2012–2013)	29	17	24	81	73	57	84
Sierra Leone (2008)	74	46	45	81	74	14	70
AVERAGE	**80**	**41**	**56**	**86**	**79**	**27**	**73**
Sub-Saharan Africa	**46**	**45**	**..**	**82**	**..**	**..**	**..**
LDCs	**54**	**53**	**..**	**84**	**..**	**47***	**54***

Note: Figures in the table are recalculated from the DHS datasets and are based on women with a last birth within two years preceding the survey, delivered by a skilled health provider. Hence the estimates will differ from those presented in the DHS survey report. Countries were selected based on high neonatal mortality rates and available data.

*Unweighted average of coverage of postnatal care for newborns (22 countries) and mothers (42 countries), spanning across low- and middle-income countries with available data.

.. Data coverage was insufficient to calculate regional estimates.

Source: UNICEF analysis based on DHS data in 10 high neonatal mortality countries. The source for the aggregates for sub-Saharan Africa and LDCs is UNICEF global databases 2014 based on data for the periods 2008–2012. The source for postnatal data is UNICEF and Saving Newborn Lives, as presented in *Countdown to 2015 Report* (2014) based on MICS and DHS.

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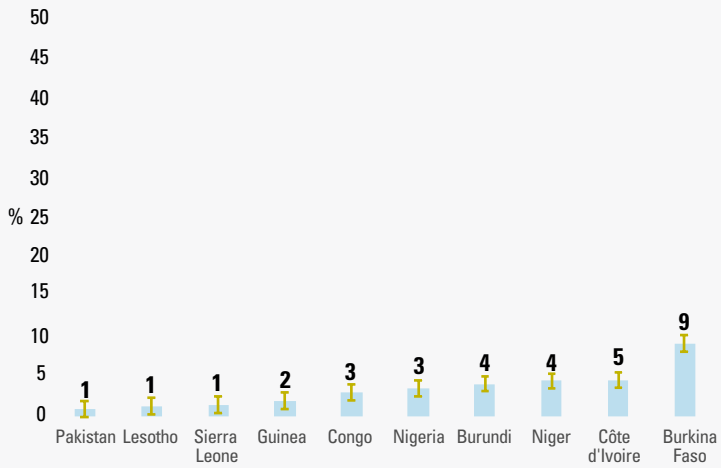
Assessing all seven interventions as a package indicative of quality care in the immediate postnatal period results in a disturbing finding: Of the babies born to mothers who delivered with a doctor, nurse, or midwife, just 1 to 9 per cent received all seven interventions (figure 41).

FIG.41 **Despite contact with a skilled health professional during delivery, newborns and mothers are not receiving needed quality care**

Percentage of women delivering with a skilled health professional whose newborns received seven selected postnatal interventions, 2008–2013



Note: All calculations based on women whose last birth was within the two years preceding the survey; selected countries with high neonatal mortality. The vertical lines represent 95% confidence intervals. Analysis based on seven selected interventions (see figure 40).

Source: UNICEF analysis based on DHS data.

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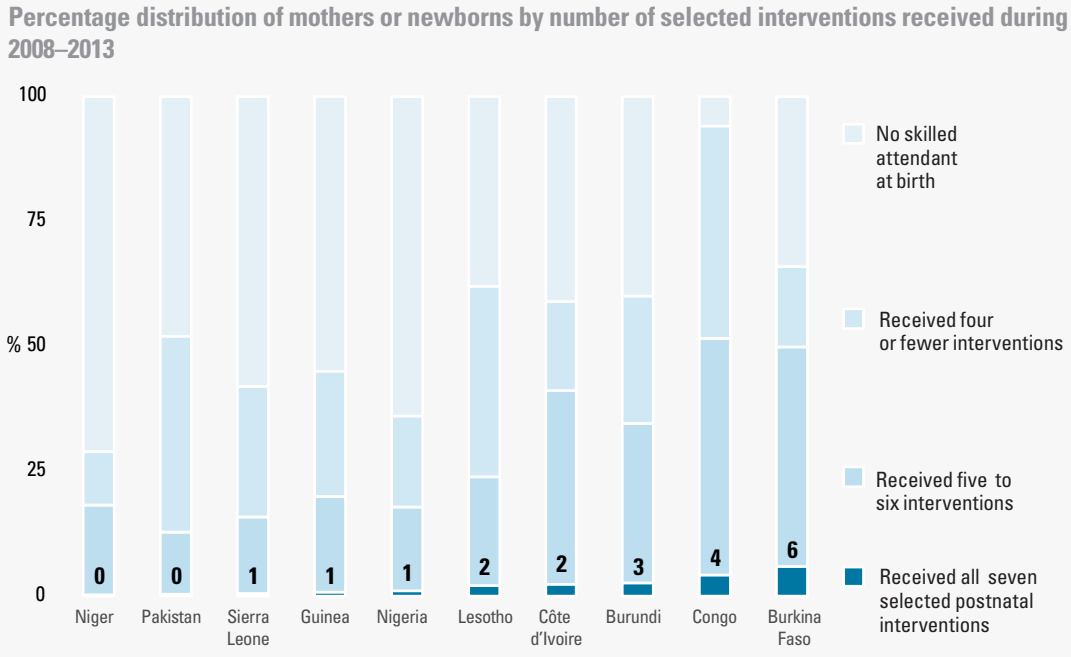
Because of the substantial proportion of deliveries that do not occur with a skilled attendant, the total proportion of newborns who receive the subset of seven key interventions is very low (figure 42).

Thus millions of women and babies receive inadequate care in the early postnatal period, putting these babies at risk during the precarious first month of life.

FIG. 42 Too few newborns receive the quality care they need



Note: All calculations based on women whose last birth was within the two years preceding the survey; selected countries with high neonatal mortality. Analysis based on seven selected interventions (see figure 40).

Source: UNICEF analysis based on DHS data.

BOX 6| PROVIDING SPECIAL CARE FOR PREMATURE AND SICK BABIES

As of 2013, nearly half of under-five deaths take place in the first 28 days of life, compared to 37 per cent in 1990. The newborns at greatest risk are those born premature or sick. With a greater effort to save these infants, the world can spare the lives of more than half a million newborns annually by 2025.[1]

In the world's poorest countries, health systems are hindered by staff shortages, capacity gaps and an uneven distribution of resources between urban and rural areas.[2] As a result, far too many facilities lack the capacity to provide adequate treatment for babies born prematurely, with low birthweight or a severe infection, or unable to breathe or feed without assistance.

Simple, affordable, effective interventions for treating premature and sick babies exist:

- **Recognition and management of severe infections:** Quality newborn care involves the early detection of infections such as pneumonia and sepsis and the steady continuation of breastfeeding, when possible. Babies with infections need antibiotics, intravenous fluids and intensive care.

- **Prevention and management of jaundice:** Premature infants and babies born small for their age face a greater risk of jaundice and infection. Both conditions together worsen the risk of death and disability. The most effective and increasingly common treatment for jaundice is phototherapy, exposing the baby to safe fluorescent light, which is absorbed by the skin.[3]

- **Management of respiratory distress syndrome:** Babies born with breathing problems need safely administered oxygen and supportive care, monitored continuously throughout the intervention. A less intensive treatment is continuous positive airway pressure, in which air pressure is delivered through a small mask that fits over the baby's nose, helping to keep newborn lungs inflated. This procedure is feasible in low-income countries with well-equipped and well-staffed referral hospitals. Also in such hospitals, another treatment for respiratory distress is administration of surfactant to premature babies' lungs to replace the missing natural surfactant.

- **Thermal care, kangaroo mother care and skin care innovations:** Simple interventions, such as keeping the baby in skin-to-skin contact with the mother ('kangaroo care'; see box 12), application of topical emollients and massage therapies have the potential to protect preterm newborns from infections.

Despite the evidence base behind many of these affordable interventions, most remain out of reach of the poorest families around the world. Scaling up quality care requires expanding access to the critical care required to save even the smallest and most vulnerable newborns.

IMPROVING CARE FOR NEWBORNS AND MOTHERS

As this chapter shows, progress to date in having skilled health personnel reaching every mother and child has been modest, and levels reached are not high enough. Even those babies and mothers who do receive care from a medical professional during pregnancy or delivery may not receive quality care. Too many pregnant women and newborns do not receive the full range of interventions that are needed.

The poor and marginalized people in a country, those who face the greatest risks of morbidity and death, are even worse off than the national numbers would suggest. Not only are vulnerable mothers and babies less likely to have contact with the health system, the evidence indicates that when they do they are less likely to receive high-quality care.

Increased emphasis must be given to the time immediately around birth and to small and sick newborns; this is where we can have the greatest impact in saving lives. To support continued progress better data are needed to help guide programmes. We have proven high-impact solutions to end preventable deaths, and the world needs to deliver on its promise.

3| Delivering on the Promise of Newborn Survival

3 | Delivering on the promise of child survival

Since the launch of *A Promise Renewed*, more than 178 governments have pledged to do everything possible to meet both MDG 4 and MDG 5 on time and sustain the progress beyond 2015.

As this report shows, the world is making impressive advances on maternal, newborn and child survival (see box 7). The global rate of under-five mortality is falling faster than at any other time over the past two decades. Between 1990 and 2013, the total number of under-five deaths fell by nearly half, from approximately 12.7 million in 1990 to 6.3 million in 2013. This global progress means that more children are living to celebrate their fifth birthday. This year's data and analysis also demonstrate, however, that the global progress benefiting so many children continues to elude millions of the world's youngest and most vulnerable.

In 2013 alone, 6.3 million children died before reaching their fifth birthday, 2.8 million within the first 28 days of life, mostly from preventable causes. These numbers represent more than a statistic. Each and every death is the untold story of a family's grief and a promise broken by the global community.

Under the banner of *A Promise Renewed*, a growing coalition encompassing governments, civil society and the private sector is bolstering the effort to uphold the promise of MDG 4. In nearly all regions of the world, governments are launching national movements to scale up action and advocacy for women and children. In collaboration with UNICEF, WHO, USAID, and hundreds of national civil society and private sector organizations, governments are sharpening national strategies for reproductive, maternal, newborn and child health. They are setting costed targets and mobilizing citizens around the goal of ending preventable maternal, newborn and child deaths. The accelerated effort to close the gap on MDG 4 is saving lives every day.

ACCELERATING PROGRESS TO MDG 4 IN 500 DAYS

The world has less than 500 days to keep the promise it made with MDG 4 — to reduce by two-thirds, between 1990 and 2015, the under-five mortality rate. If current trends continue, however, the target will only be reached by 2026, 11 years behind schedule. To achieve the goal on time, child mortality must fall at a rate faster than any country has yet achieved.

As reported in the first annual progress report for *A Promise Renewed*, countries are accelerating progress to MDG 4 by implementing five priority actions:

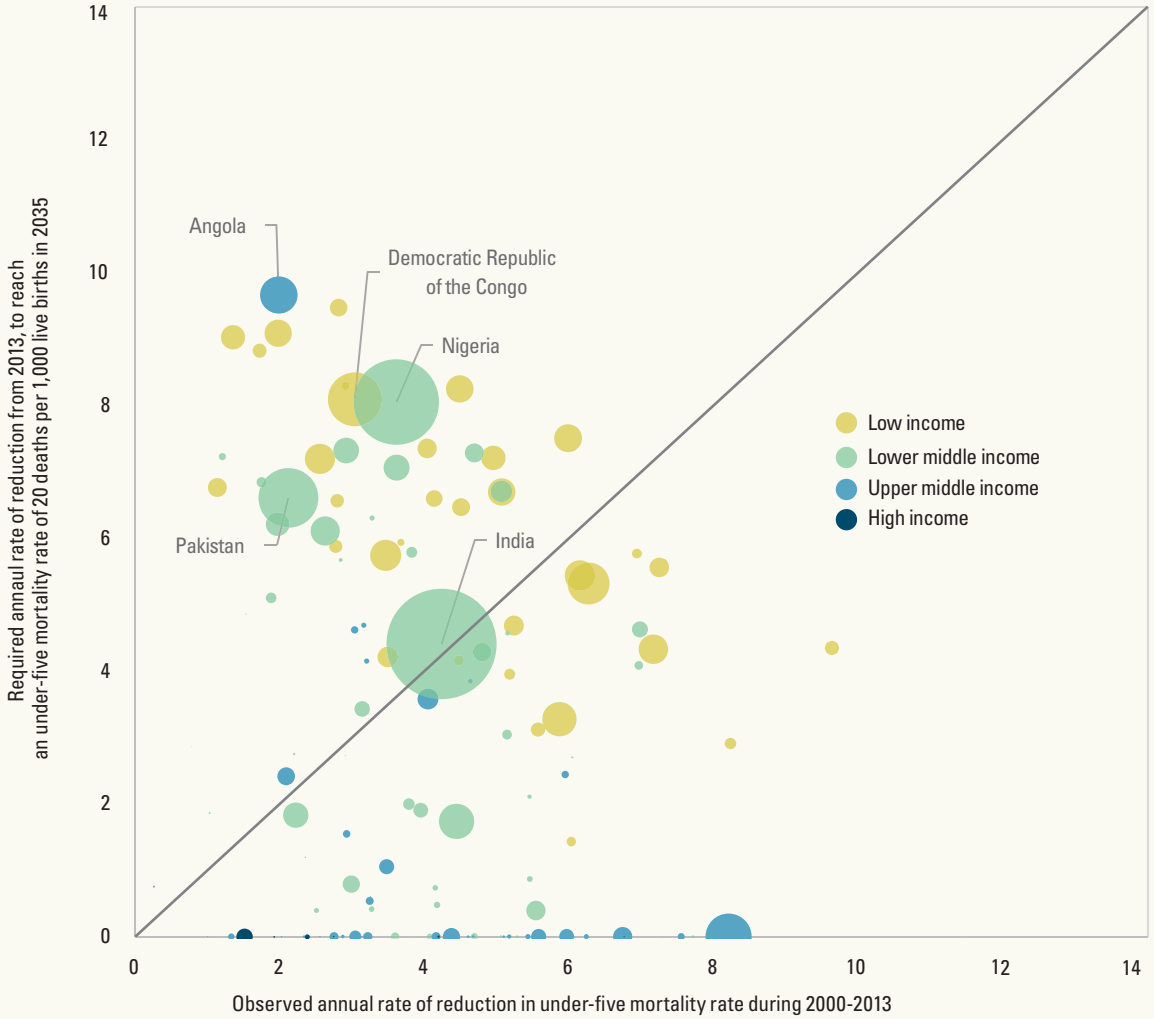
1. Target the geographical concentration of under-five deaths
2. Scale up access to underserved populations
3. Prioritize the leading causes of under-five mortality
4. Support women's education and empowerment
5. Promote mutual accountability for maternal, newborn and child survival.

Over the past two years, more than 20 countries have embarked on the process of sharpening national strategies, according to these five priority actions. It is still too early to quantify the results of these efforts. However, the findings presented in this year's progress report underscore their importance and affirm that in introducing the five priority actions, governments are positioning their countries on a trajectory towards significant gains in maternal, newborn and child survival. Just as important, the evidence shows that the five priority actions can benefit all countries, and all children, everywhere.

BOX 7| GLOBAL PROGRESS TOWARDS THE TARGET OF *A PROMISE RENEWED*

Two years ago, a modelling exercise presented at the Child Survival Call to Action showed that countries that scale up action and advocacy can reach a mortality rate of 20 or fewer under-five deaths per 1,000 live births. As of 2013, 102 countries have achieved this rate. An additional 43 countries are expected to achieve the target, based on current trends. The remaining 50 countries are off track for the 2035 target. For 26 countries, reaching the target will require at least doubling the current annual rate of reduction.

Figure A. What is needed to reach an under-five mortality rate of 20 deaths per 1,000 live births by 2035



About these charts

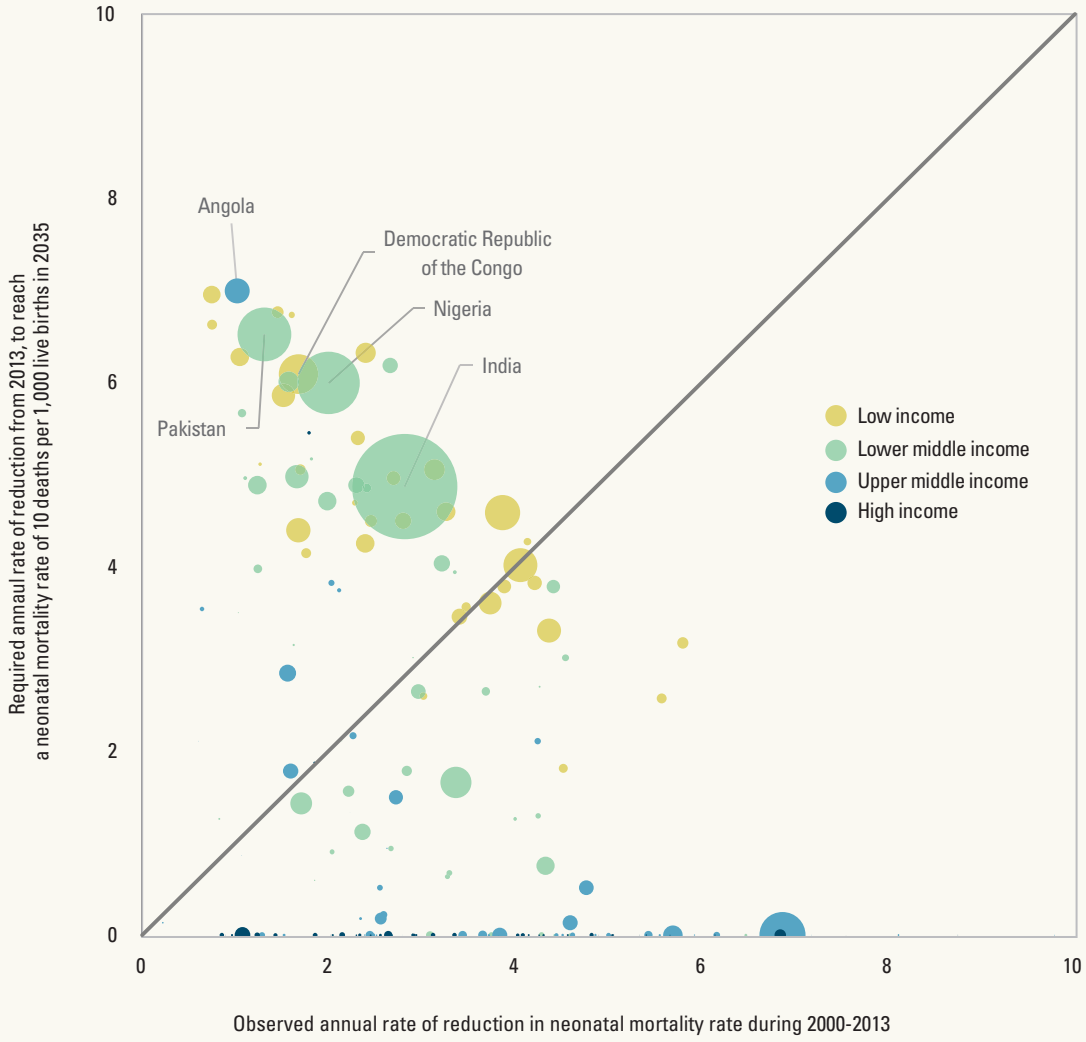
Figure A and B illustrate the mortality rate reductions needed by individual countries to achieve the specific targets

- Each bubble represents a country. The size of the bubble represents the number of deaths in 2013.
- The color of the bubble represents national income level.
- The horizontal axis shows the observed rate of reduction in mortality rate per year over 2000-2013.
- The vertical axis shows the required rate of reduction per year from 2013 to 2035 to meet the target.
- Countries above the diagonal line need faster rates of reduction (i.e., accelerated progress) to achieve the target.
- Countries below the diagonal line will be able to achieve the target at their current rates of reduction.
- Countries on the horizontal axis have already reached the target, as of 2013.

GLOBAL PROGRESS TOWARDS THE TARGET FOR THE EVERY NEWBORN ACTION PLAN

Modelled on the target for *A Promise Renewed*, 20 under-five deaths per 1,000 live births, the ENAP advocates a target of 10 or fewer neonatal deaths per 1,000 live births in all countries by 2035.The latest data, featured in this year's report, shows that 96 countries have a neonatal mortality rate of 10 or fewer deaths per 1,000 live births as of 2013. An additional 41 countries are expected to achieve the target if current trends continue. Of the 58 countries that need to accelerate progress to achieve the target, 39 are in sub-Saharan Africa, reinforcing the need to focus the world's attention on scaling up high impact interventions in this high-burden region.

Figure B. What is needed to reach a neonatal mortality rate of 10 deaths per 1,000 live births by 2035



FIVE PRIORITY ACTIONS FOR FULFILLING THE WORLD'S PROMISE TO CHILDREN

1. TARGET THE GEOGRAPHICAL REGIONS THAT CARRY THE HIGHEST BURDEN OF UNDER-FIVE MORTALITY

Within any country, rich or poor, accelerating declines in under-five mortality requires policymakers to prioritize the geographical regions most in need. Worldwide, the burden of under-five mortality is increasingly concentrated in the poorest, most disadvantaged regions. Findings from this year's progress report single out two high-priority regions, sub-Saharan Africa and South Asia, which together account for four out of five under-five deaths globally. Sub-Saharan Africa continues to register the highest under-five mortality rate, with 1 in 11 children dying before age 5. This is nearly 15 times the average in high-income countries.

A geographical focus on high-burden areas carries implications for the type, intensity and scale of the strategies deployed. As highlighted in chapter 1, the causes of under-five mortality vary by region. Although child deaths due to leading infectious diseases are on the decline worldwide, pneumonia, diarrhoea and malaria are still among the leading killers of children in sub-Saharan African and South Asia. Combatting these and other infectious diseases in the poorest, hardest-to-reach regions requires creative strategies, steadfast political commitment and innovative partnerships that deliver simple, affordable solutions, such as antibiotics and immunizations, at scale (see box 8).

The recent launch of *A Promise Renewed* in the Philippines illustrates how fresh thinking and dynamic collaboration can result in innovative strategies targeting the hardest-to-reach children.

Focusing on the hardest-to-reach regions of the Philippines
The Government of the Philippines is redoubling efforts to reach women and children in the country's most remote communities. In April 2014, the government launched *A Promise Renewed for Kalusugan Pangkalahatan* (universal health care), a nation-wide strategy that aims to reach every woman and every child with quality care. To demonstrate their shared accountability for the strategy, the government and partners, including UNFPA, UNICEF, USAID and WHO, signed a Declaration of Commitment to maximize the efficiency and effectiveness of collaborative efforts to extend access to life-saving health services.

2. PRIORITIZE HIGH BURDEN POPULATIONS

Another game-changing strategy proven to accelerate declines in under-five mortality is scaling up access for underserved populations, especially rural and low-income groups. As this year's progress report shows, the world's attention to the poorest households is yielding results. In all regions, the poorest quintiles are making substantial progress in reducing under-five mortality. Between 1990 and 2010, the gap in child survival between the

BOX 8| IMMUNIZATION: A POWERFUL TOOL FOR SAVING LIVES AND HELPING CHILDREN THRIVE

One of the greatest achievements in global public health, immunization reaches more than 80 per cent of the world's children and protects the lives of millions of mothers and newborns every year. Innovative partnerships between the public and private sectors are making immunizations increasingly affordable and available, with impressive results.

For example, only two decades ago, maternal and neonatal tetanus was a major cause of newborn deaths. Working together, the GAVI Alliance, UNICEF and a global coalition of partners, including civil society networks such as Kiwanis International, led a robust effort to combat the deadly and preventable disease. An estimated 40 million women in over 30 low-income countries received two doses of the vaccine. By June 2014, 35 countries had eliminated tetanus, with 24 others yet to achieve the goal.

As more countries declare eradication against maternal and neonatal tetanus and other preventable diseases, the burden of disease is concentrating among the poorest countries. For example, rubella, a disease eliminated by many of the wealthiest countries, continues to threaten the world's poorest pregnant women and newborns. When a woman is infected with the disease in early pregnancy, she risks a miscarriage, stillbirth, or the chance that her baby will be born with congenital rubella syndrome, which can result in deafness, blindness or other conditions. Of the estimated 112,000 babies born with rubella, 80 per cent (90,000) are born mostly in Africa and South-East Asia.

Through innovative financing, the GAVI Alliance is closing the equity gap by helping countries procure and deliver vaccines against measles and rubella through routine immunization programmes. Immunization programmes also create a delivery system for isolated and underserved communities to receive other vital services, including nutrition screening and anti-malarial mosquito nets.

Sustaining the gains against diseases such as rubella and maternal and neonatal tetanus requires continued vigilance in rich and poor countries alike. Health systems need to include the vaccines in routine immunizations and parents need to be aware of the importance of the vaccine to the health and well-being of mothers and newborns.

richest and poorest households decreased in all regions except sub-Saharan Africa. Sustaining these gains and narrowing the deep disparities that remain requires a concerted effort to scale up access for underserved populations, especially rural and low-income groups. Sustaining these gains also requires a focus on the youngest, those in their first month of life. This year's report shines a light on newborns, who account for a growing proportion of all under-five deaths.

Globally, mothers and newborns in the poorest countries remain the least likely to access quality care. In the poorest countries, even women who make contact with a skilled health care provider are too often deprived of quality antenatal and postnatal care. As this report shows, available data indicate that fewer than half of the newborns born into some of the world's poorest countries received postnatal care. For a mother and a newborn to walk away from a health care worker without receiving the interventions that could save their lives is a missed opportunity and a grave injustice.

An increasing number of governments that support *A Promise Renewed* are sharpening plans to focus on the youngest and most vulnerable, as illustrated by India's experience (see box 9).

3. SCALE UP HIGH-IMPACT SOLUTIONS

Children who die within the first 28 days often do so as a result of diseases and conditions that are readily preventable or treatable with proven, cost-effective interventions. As discussed in chapter 2, the ENAP represents a global consensus on the practical actions that every country can take to give every newborn the chance to survive the first minutes, hours and days of life.

A range of life-saving interventions need to be delivered along a continuum of care, with a focus on the time around birth for all newborns and special attention to small and sick newborns, especially in

BOX 9| ACTING ON INDIA'S CALL TO ACTION

In February 2013, policymakers joined leaders from the private sector and civil society in Mahabalipuram, Tamil Nadu for India's Call to Action – 'Child Survival and Development for Every Child in India.' Convened under the banner of *A Promise Renewed*, the high-level forum launched the 'Strategic Approach to Reproductive Maternal Newborn Child and Adolescent Health,' an ambitious roadmap for accelerating child survival and development. The government is making steady progress implementing this bold strategy, which identifies 184 high-priority districts across some of the country's poorest states.

With the support of partners, including UNICEF, USAID, the Bill & Melinda Gates Foundation, UNFPA, the Norway India Partnership Initiative and the Government of the United Kingdom, the Government of India is developing strategies for bridging and financing health care gaps in the priority districts, and implementing a system for monitoring and reviewing local-level health care services.

The results are beginning to show. In Maharashtra alone, the health care budgets for high-priority districts increased by 100 to 300 per cent. As in other states with high-priority districts, Maharashtra faces a limitation in trained health care providers. The government is tackling the problem through innovative partnerships that harness the comparative advantages of the private sector and civil society. For instance, in Aurangabad, teams from private medical colleges are deployed to service primary health care facilities in urban and peri-urban areas.

Another priority is to strengthen the monitoring of Special Newborn Care Units and to develop systems for tracking the babies' development once they are home. Piloted in 2012, a new digital monitoring system developed in Madhya Pradesh is now used across six states to monitor 245 newborn care units. The real-time information helps policymakers monitor outcomes and prioritize resources.

The strategy is off to an impressive start, thanks to committed government leadership and robust coordination among partners. These partnerships with civil society, the private sector and international agencies demonstrate the country's strong potential to give every Indian child the best possible start in life.

the poorest countries. The ENAP also calls for a robust global effort to scale up birth registration (see box 10).

If implemented at scale, reaching coverage levels of 90 per cent, these interventions could save almost 3 million lives per year by 2025 in the 75 countries that account for over 95 per cent of maternal, neonatal and child deaths worldwide. Put differently, by 2025, these interventions can avert 2,720,000 newborn deaths and stillbirths and save 160,000 women who otherwise would die before or shortly after birth.[1] Based on the modelling exercise prepared for *A Promise Renewed*, the ENAP also proposes a target that calls on every country to reach a neonatal mortality rate of 10 or fewer neonatal deaths per 1,000 live births by 2035.

The actions outlined in the ENAP carry the support of a global coalition united around the strategies for maternal and newborn survival.[2] In developing it, UNICEF, WHO and an advisory group comprised of scientific and medical experts consulted over 500 representatives from government, civil society and the private sector in 17 countries. Virtually every country that supports *A Promise Renewed* is scaling up high-impact interventions for maternal and newborn care, an indication of the universal consensus on the importance of this vulnerable age group (see box 11).

4. CREATE A SUPPORTIVE ENVIRONMENT FOR CHILD SURVIVAL

Maternal and newborn survival is determined by social and economic factors that influence the physical and psychological well-being of women and children. Maternal education, geographic isolation, gender discrimination, social marginalization and economic disadvantage all undermine a woman's prospects for accessing quality health care. Women exposed to any one of these risk factors also face a greater likelihood of early pregnancy, short birth intervals and other practices that are harmful to mothers and babies.

BOX 10| MAKING UNIVERSAL BIRTH REGISTRATION A REALITY IN KAZAKHSTAN

A birth certificate is a ticket to citizenship, and children must receive one at birth to access the privileges and safeguards to which they are entitled. Yet the 45 per cent of children under five who lack birth certificates around the world are legally invisible and their demands for public services almost inaudible.

Birth registration is a child's passport to vital public health care services, education and social security. The data gathered through civil registration and vital statistics systems also provide governments with important information about the performance of public services, especially health and education.

An increasing number of governments around the world are making a major effort to strengthen civil registration systems. In Kazakhstan, for example, the government launched an initiative to improve data collection on infant and child mortality rates. Many of the reforms involve modernizing and digitizing data collection and analysis. The birth and death registration system uses electronic reporting to narrow the distance between communities and analysts, making it possible for policymakers to obtain real-time information on the health of the country's people and services.

BOX 11| SCALING UP HIGH-IMPACT SOLUTIONS FOR ETHIOPIA'S NEWBORNS

After convening the 2013 *African Leadership for Child Survival — A Promise Renewed*, a regional forum that called for greater accountability for Africa's mothers and children, the Government of Ethiopia is leading by example. With support from UNICEF and other partners, the government is implementing a bold strategy that targets the country's hardest-to-reach mothers and newborns. The three-pronged strategy is scaling up the coverage of community-based new-born care, which includes sepsis treatment; immediate essential newborn care in health centres and district hospitals; and neonatal intensive care units in hospitals.

The combination of innovative, evidence-based strategies and the government's long legacy of leadership on maternal, newborn and child survival is yielding impressive results. Ethiopia achieved MDG 4 three years ahead of schedule by cutting under-five mortality from 205 per 1,000 live births in 1990 to 68 per 1,000 in 2012. Ethiopia's progress illustrates that countries can achieve dramatic declines in child mortality, despite constrained resources. It puts Ethiopia on a trajectory to bend the curve and achieve a major goal of *A Promise Renewed* — 20 under-five deaths per 1,000 live births by 2035.

BOX 12| KANGAROO MOTHER CARE: A SIMPLE, LOW-COST STRATEGY FOR SAVING LOW-BIRTHWEIGHT BABIES

Worldwide, every year, an estimated 15 million babies are born premature, at fewer than 37 weeks of gestation.[1] An additional 10.6 million infants are born at full term but are small for gestational age.[2] More than one million preterm babies die because their vital organs are not sufficiently developed to handle life outside the womb.[3] Low-birthweight babies need special intensive care to prevent hypothermia and infection. Developed in Colombia in the 1970s, kangaroo mother care keeps premature newborns alive during the earliest days of life.[4]

In Senegal, the Kangaroo Mother Care Unit at the Albert Royer Hospital helped save the life of baby Adama, a newborn who arrived over one month premature and weighed only 1.6 kilograms. The newborn's initial prospects of survival seemed grim and few family members expected him to survive. Adama's fate began to turn around when health care workers instructed his mother, 20-year-old Coumba Fall, to cradle her small son close to her chest. The skin-to-skin contact regulates the newborn's body temperature, facilitates breastfeeding, provides near continuous stimulation, and keeps the baby in the closest possible proximity to the mother's love and care. With only a diaper separating the newborn from his mother's warm skin and his head peeking out from above her wrap, Adama sleeps soundly as Coumba explains the benefits of the Kangaroo Mother Care Unit: "Staff of the Kangaroo Mother Care Unit are taking care of my baby with very simple and very useful information. I keep him in skin-to-skin contact and he is getting better and better now."

Established with support from UNICEF, the Kangaroo Mother Care Unit has admitted 181 newborns since it opened its doors in 2011. The first baby arrived from Touba, 200 kilometers east of Dakar. Born at 28 weeks, the sixth month of pregnancy, and weighing only 800 grams, the premature newborn was declared "not viable," explains Dr. Haby Signaté, the head of the neonatology department. "That child left our unit healthy," she proclaims, crediting Kangaroo Mother Care. "This method has shown that it works and it is also not expensive."

A 2014 multi-country review of kangaroo mother care demonstrates the benefits of this simple, low-cost intervention:

- 40 per cent reduced risk of death
- 55 per cent reduced risk of hospital-borne infection and sepsis
- 66 per cent reduced risk of hypothermia
- 2.2 fewer days in hospital stays, on average
- 27 per cent increased rates of exclusive breastfeeding and 36 per cent increased rates in exclusive breastfeeding from 1 to 3 months
- 17 per cent increased parent/family satisfaction[5]

Scaling up public information about and access to kangaroo mother care hinges on a number of factors, including training for health care workers, supportive supervision for mothers and the active support of government, district or institutional managers.[6]

Efforts to promote the survival and well-being of women and children must prioritize the social determinants of maternal and newborn mortality. Ending child marriage, reducing adolescent fertility and extending birth intervals are important to reduce the risk of newborn mortality. Doing so requires an approach that goes beyond the health sector. It must include a focus on girls' education, women's economic and political empowerment, and maternal education, especially with regard to health care-seeking practices.

Educating women on healthy care-giving practices, such as kangaroo mother care (see box 12), is one of the simplest and most effective strategies for keeping mothers and newborns alive. Within the context of *A Promise Renewed*, countries are placing greater emphasis on maternal education, as part of the effort to increase the supply of and demand for low-cost, high-impact interventions for maternal and child survival.

5. SUSTAIN MUTUAL ACCOUNTABILITY

Newborn deaths are not inevitable. Yet in far too many of the world's poorest communities, the death of a mother or child remains an all too normal occurrence. Few citizens know about the commitments made by their governments or the efforts under way to improve outcomes for women and children. Fewer still have the opportunity to speak out about the quality of services in their communities. As a result, public demand for continued progress remains inaudible, and policymakers do not necessarily know which services require improvements. Unless quality improves, families are unlikely to seek out the care that women and children require.

When governments launch *A Promise Renewed*, they are issuing a call to action to all segments of society. In Latin America and the Caribbean, among other regions, civil society and faith-based organizations are drawing public attention to the importance of maternal, newborn and child survival (see boxes 13 and 14). Communities large and small need to monitor and report on gaps in quality care for women and newborns. This type of citizen-

led accountability benefits citizens and politicians alike. It provides women, families and communities with the opportunity to engage in the process of improving services, and it benefits elected officials by building support for investments in maternal, newborn and child survival.

Nearly all 20 of the governments that launched national movements around *A Promise Renewed* also developed tools to track progress at the national level. In collaboration with the African Leaders Malaria Alliance, USAID, WHO and other partners, UNICEF is supporting governments in designing and implementing scorecards on reproductive, maternal, newborn and child health.

For example, Ethiopia's Federal Ministry of Health introduced a national maternal, newborn and child health score card and updates it quarterly to gauge progress across the country. Routine monitoring and reporting enables officials to monitor the fulfilment of the promises made to women and children. They also serve as a tool to motivate policymakers to hold one another accountable for collective progress on national targets.

BOX 13| FOCUSING PUBLIC ATTENTION ON SURVIVAL IN LATIN AMERICA AND THE CARIBBEAN

Over the past five decades, Latin America and the Caribbean has made tremendous progress on maternal, newborn and child survival. However, there is still significant work to be done. Inequitable health outcomes persist within and among countries.

Spurred by the *Child Survival: A Call to Action* launched by the Governments of Ethiopia, India and the United States in June 2012, the region's governments and partners launched *A Promise Renewed in the Americas* in September 2013 to bridge inequities in access to reproductive, maternal, newborn, child and adolescent health.

Since the launch, 27 governments, 8 multilateral agencies and 39 regional organizations signed the *Declaration of Panama*, reaffirming their shared commitment to reduce disparities by expanding evidence-based interventions to every woman, newborn, child and adolescent across the region. With support from the IDB, PAHO, UNAIDS, UNFPA, UNICEF, USAID and the World Bank, the regional movement is gaining strong momentum among governments, civil society networks and academic institutions, harnessing regional collaboration to improve the well-being of those in greatest need.

For example, the Government of El Salvador mounted a countrywide effort in response to evidence that 86 per cent of under-five deaths occur within the first year of life, many within the first 28 days. Mobilizing more than 15 organizations, the Government created the Neonatal Alliance to focus on premature birth, congenital birth defects and infections in the country's poorest regions. In less than one year, the Alliance helped to scale up various interventions, reinforcing the ongoing efforts to mobilize the country's policymakers, private sector, civil society and individual citizens.

The Government of Paraguay is also launched a national effort to boost public demand for timely maternal and newborn care. In August 2014 the President pledged to reduce newborn mortality by at least three percentage points, mobilizing the health care sector along with the media, the private sector and civil society to ensure that pregnant women and newborns receive the care they need.

To attract the attention of consumers, toy stores across Asunción closed their doors on 18 June and populated their display windows with toys dressed in mourning clothes to commemorate the deaths of mothers and newborns. Social media also responded to the call, as thousands of 'netizens' joined the campaign, using the hashtag #ZeroPreventableDeaths, reaching nearly half a million Facebook accounts. Media personalities disseminated the campaign's messages on more than 70 radio and television stations. By spreading the word on the causes of maternal and newborn survival, the Government of Paraguay and supporters of the campaign are drawing public attention to the importance of quality care while keeping alive the promise to accelerate reductions in newborn deaths.

BOX 14| THE SUCCESS OF COMMUNITY-BASED MATERNAL AND NEWBORN CARE IN MALAWI

As part of the government's efforts to fulfil the commitment of *A Promise Renewed*, Malawi is scaling up community-based skilled health care. As in many of the world's poorest countries, in Malawi, under-five deaths are increasingly concentrated in the neonatal period. The government is training community health workers to provide pregnant women with skilled, home-based care. Community health workers, called Health Surveillance Assistants (HSAs), are integral to the national system. Based in villages, often in remote areas, HSAs see and treat cases early, sparing patients the often costly expense of visits to nearby health centres.

With support from UNICEF, HSAs are trained in the community case management approach, enabling them to treat women and children in homes or village clinics. Although they are not doctors, HSAs can identify and treat some of the leading causes of maternal and child mortality, including diarrhoea, pneumonia and malaria.

Through the HSAs and related strategies, Malawi is achieving record declines in under-five mortality. Between 1990 and 2013, the country's estimated rate of child mortality plummeted from 245 under-five deaths per 1,000 live births to just 68. Of all low-income countries worldwide, Malawi registered the highest rate of reduction in under-five mortality, achieving the MDG 4 target of 82 per 100,000 live births well ahead of the 2015 deadline. To sustain this impressive progress, the next step is to link community-based programmes with health facilities that provide high-quality emergency care, since obstetric emergencies generally require fast action and specialized medical services.

KEEPING WOMEN, NEWBORNS AND CHILDREN AT THE HEART OF THE GLOBAL AGENDA

The MDG agenda united the global community in an unprecedented effort to accelerate declines in preventable maternal and child deaths. In the past two years, the coalition of partners that support the goals of *A Promise Renewed* added new momentum to the global effort to achieve MDG 4 and sustain the progress beyond 2015. Governments, international aid agencies, civil society and the private sector demonstrated that tremendous results can be achieved through coordinated action, political momentum and targeted investments in proven approaches. As a result, millions more children are living to celebrate their fifth birthdays.

However, the MDG agenda remains unfinished and the promise of MDG 4 unfulfilled. Based on current trends, 12 million children under 5 will die in 2014-2015. The mere prospect of failing to meet MDG 4 is an outrage that should shock the conscience of the world. Yet, the possibility of failure is all too real for mothers and children who to die from preventable causes every day.

So long as these deaths continue, the world remains accountable for the promise of MDG 4, even beyond 2015. As the global community deliberates on the content of the post-2015 global development agenda, the focus on newborn mortality and stillbirths must intensify. Every newborn life and death needs to be counted, along with every stillbirth. Every country needs to commit to and be held accountable for clear and measurable targets for maternal, newborn and child survival. The coalition of partners coalescing around *A Promise Renewed* demonstrates the potential of a steadfast community to meet and exceed the MDG benchmark for maternal, newborn and child survival.

The world has an unfulfilled responsibility that must be upheld: Every mother and every newborn everywhere must have an equal opportunity to survive and thrive.

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OVERVIEW

1 A similar modelling exercise is under way to identify a target for ending preventable maternal deaths by 2035.

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BOX 12 | Kangaroo mother care: A simple, low-cost strategy for saving low-birthweight babies

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Tables: Country and regional estimates of child mortality and causes of under-five deaths

Tables: Country and regional estimates of child mortality, causes of under-five deaths, and coverage indicators

DEFINITIONS OF INDICATORS

Mortality Indicators

Under-five mortality rate (U5MR) – Probability of dying between birth and exactly 5 years of age, expressed per 1,000 live births.

Infant mortality rate (IMR) – Probability of dying between birth and exactly 1 year of age, expressed per 1,000 live births.

Neonatal mortality rate – Probability of dying in the first month of life, expressed per 1,000 live births.

Coverage indicators

Antenatal care (at least 4 visits) – Percentage of women (aged 15–49) attended by any provider at least four times during pregnancy.

Skilled attendant at birth – Percentage of births attended by skilled heath personnel (doctor, nurse or midwife).

Postnatal care for newborns – Percentage of live births in the last 2 years who received postnatal health check within 2 days after delivery.

Birth registration (children under age one) – Percentage of children under age one whose births are registered at the moment of the survey. The numerator of this indicator includes children whose birth certificate was seen by the interviewer or whose mother or caregiver says the birth is registered.

MAIN DATA SOURCES

Mortality rates and number of deaths – UN IGME 2014.

Cause of death – The World Health Organization (WHO) and the Child Health Epidemiology Reference Group (CHERG) provisional estimates 2014 (http://www.who.int/healthinfo/statistics/ChildCOD_method.pdf).

Antenatal care (at least 4 visits) – UNICEF global databases based on Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS) and other nationally representative sources.

Skilled attendant at birth – UNICEF global databases based on DHS, MICS and other nationally representative sources.

Postnatal care for newborns – Saving Newborn Lives and UNICEF based on DHS and MICS.

Birth registration – UNICEF global databases based on DHS, MICS, censuses, vital registration systems and other nationally representative sources.

EXPLANATION OF SYMBOLS

– Data not available.

*Excludes China.

NOTES ON REGIONAL ESTIMATES:

- All regional estimates presented in this report refer to UNICEF's regional classifications.
- Given the lack of comparable data, totals for the world presented in charts on coverage indicators do not include countries outside of these regions, which are primarily high and high-middle income countries located in Australasia, Europe and North America. This note does not apply to mortality estimates.
- For further details on this classification please refer to http://data.unicef.org/index.php?section=regional-classifications.

For more information about country level source information, disaggregated data and trends on the indicators presented on this report, as well as on additional indicators, please check UNICEF global databases available at data.unicef.org.

Country estimates of child mortality,causes of under-five deaths, and coverage indicators

Countries and areas	Under-five mortality rank 2013	Under-five mortality rate (deaths per 1,000 live births) 1990	2000	2013	Decline (%) 1990–2013	Annual rate of reduction (%) 1990–2013	Number of under-five deaths (thousands) 1990	2013	Infant mortality rate (deaths per 1,000 live births) 1990	2013	Number of infant deaths (thousands) 1990	2013	Neonatal mortality rate (deaths per 1,000 live births) 1990	2013	Number of neonatal deaths (thousands) 1990	2013
Afghanistan	**16**	179	136	97	46	2.7	98	100	121	70	67	71	51	36	28	37
Albania	**110**	41	26	15	63	4.3	4	1	35	13	3	1	17	7	2	0
Algeria	**81**	47	40	25	46	2.7	39	25	40	22	33	21	23	14	18	14
Andorra	**185**	9	5	3	65	4.5	0	0	8	2	0	0	4	1	0	0
Angola	**1**	226	217	167	26	1.3	114	153	133	102	68	93	54	47	28	43
Antigua and Barbuda	**142**	26	15	9	64	4.4	0	0	23	8	0	0	12	5	0	0
Argentina	**122**	28	20	13	52	3.2	20	9	24	12	18	8	16	7	12	5
Armenia	**106**	50	30	16	69	5.0	4	1	42	14	3	1	24	10	2	0
Australia	**167**	9	6	4	57	3.6	2	1	8	3	2	1	5	2	1	1
Austria	**167**	10	6	4	59	3.9	1	0	8	3	1	0	5	2	0	0
Azerbaijan	**69**	95	74	34	64	4.4	19	6	75	30	16	5	32	16	7	3
Bahamas	**122**	24	16	13	45	2.6	0	0	20	10	0	0	12	7	0	0
Bahrain	**155**	23	13	6	73	5.8	0	0	20	5	0	0	8	2	0	0
Bangladesh	**60**	144	88	41	71	5.4	531	129	100	33	366	105	55	24	203	77
Barbados	**118**	18	16	14	20	1.0	0	0	16	13	0	0	10	8	0	0
Belarus	**160**	17	14	5	70	5.3	3	1	14	4	2	0	8	2	1	0
Belgium	**167**	10	6	4	56	3.6	1	1	8	4	1	0	5	2	1	0
Belize	**100**	40	25	17	58	3.8	0	0	32	14	0	0	16	8	0	0
Benin	**24**	179	146	85	52	3.2	39	31	108	56	24	20	41	27	9	10
Bhutan	**67**	134	79	36	73	5.7	3	1	93	30	2	0	43	18	1	0
Bolivia (Plurinational State of)	**62**	123	77	39	68	5.0	29	10	85	31	20	8	38	18	9	5
Bosnia and Herzegovina	**150**	18	9	7	64	4.4	1	0	16	6	1	0	12	4	1	0
Botswana	**57**	50	85	47	6	0.3	2	2	39	36	2	2	25	25	1	1
Brazil	**118**	62	33	14	78	6.5	218	41	51	12	179	37	28	8	96	25
Brunei Darussalam	**134**	12	10	10	19	0.9	0	0	9	8	0	0	6	5	0	0
Bulgaria	**127**	22	21	12	48	2.8	3	1	18	10	2	1	12	6	1	0
Burkina Faso	**14**	202	186	98	52	3.2	79	64	103	64	40	43	40	27	16	18
Burundi	**26**	171	149	83	51	3.1	45	35	103	55	28	24	46	30	12	13
Cabo Verde	**80**	63	35	26	59	3.8	1	0	48	22	1	0	22	11	0	0
Cambodia	**63**	118	111	38	68	4.9	40	14	86	33	28	12	38	18	12	7
Cameroon	**18**	136	151	95	31	1.6	70	75	85	61	44	49	35	28	18	23
Canada	**160**	8	6	5	37	2.0	3	2	7	5	3	2	5	3	2	1
Central African Republic	**5**	177	174	139	21	1.0	20	21	115	96	13	15	48	43	6	7
Chad	**3**	215	191	148	31	1.6	61	82	116	89	33	50	48	40	14	23
Chile	**146**	19	11	8	57	3.7	6	2	16	7	5	2	8	5	2	1
China	**122**	54	37	13	76	6.3	1,644	236	42	11	1,315	203	25	8	772	143
Colombia	**100**	35	25	17	52	3.2	32	15	29	15	26	13	19	10	17	9
Comoros	**28**	125	101	78	38	2.1	2	2	88	58	1	1	41	31	1	1
Congo	**55**	92	121	49	47	2.7	8	8	60	36	5	6	30	19	3	3
Cook Islands	**142**	24	17	9	64	4.4	0	0	21	8	0	0	12	5	0	0
Costa Rica	**134**	17	13	10	43	2.5	1	1	14	8	1	1	9	6	1	0
Côte d'Ivoire	**12**	152	146	100	34	1.8	73	72	104	71	50	53	48	38	23	28
Croatia	**160**	13	8	5	65	4.5	1	0	11	4	1	0	8	3	0	0
Cuba	**155**	13	8	6	53	3.3	2	1	11	5	2	1	7	3	1	0
Cyprus	**167**	11	7	4	68	4.9	0	0	10	3	0	0	6	2	0	0
Czech Republic	**167**	15	7	4	75	6.1	2	0	13	3	2	0	10	2	1	0
Democratic People's Republic of Korea	**79**	43	60	27	37	2.0	16	10	33	22	12	8	21	15	7	5

Country estimates of child mortality,causes of under-five deaths, and coverage indicators

Share of neonatal deaths in under-five deaths(%)		Deaths among children under 5 years of age due to: (%) 2013																	Coverage Indicators (%) latest available				
		Neonatal Period (0–27 days)								Post-Neonatal (1–59 months)													
1990	2013	Pneumonia	Preterm	Intrapartum	Sepis	Tetanus	Congenital	Diarrhoea	Other	Pneumonia	Diarrhoea	Malaria	AIDS	Measles	Injuries	Meningitis	Other	Total	Antenatal care (at least 4 visits)	Skilled attendant at birth	Postnatal care for newborns	Birth registration (children under 1)	Countries and areas
29	37	2	10	11	7	1	2	1	3	18	13	0	0	4	7	3	19	100	15	39	–	39	Afghanistan
42	50	2	18	6	4	0	15	0	5	8	1	0	0	0	9	2	29	100	67	99	–	97	Albania
47	56	2	17	12	7	0	13	0	5	11	5	0	0	1	7	1	20	100	–	95	–	99	Algeria
50	50	0	18	6	2	0	19	0	5	3	0	0	0	0	6	1	40	100	–	–	–	–	Andorra
24	28	2	8	8	5	1	1	0	2	15	14	13	1	0	5	4	20	100	–	47	–	21	Angola
48	50	0	12	25	0	0	0	0	12	4	2	0	0	0	18	0	25	100	–	100	–	–	Antigua and Barbuda
58	53	1	24	4	6	0	15	0	4	8	1	0	0	0	6	1	30	100	89	97	–	–	Argentina
48	60	2	23	7	5	0	17	0	7	7	1	0	0	0	7	2	22	100	93	100	–	100	Armenia
51	60	0	19	11	1	0	17	0	12	2	0	0	0	0	7	1	30	100	92	–	–	–	Australia
46	59	0	19	8	2	0	22	0	8	2	0	0	0	0	3	2	33	100	–	–	–	–	Austria
34	47	1	19	8	5	0	8	0	6	14	7	0	0	0	8	1	23	100	45	99	–	88	Azerbaijan
48	54	12	15	8	7	0	5	0	7	21	0	0	0	0	5	0	20	100	–	99	–	–	Bahamas
36	38	0	12	3	4	0	16	0	2	5	0	0	0	0	5	2	50	100	–	100	–	–	Bahrain
38	59	2	18	13	11	1	7	0	7	11	6	0	0	1	6	1	15	100	26	32	30	9	Bangladesh
54	56	0	13	15	2	0	17	0	9	11	0	0	0	0	2	0	32	100	–	100	–	–	Barbados
44	46	1	16	5	3	0	18	0	4	5	1	0	0	0	7	1	39	100	100	100	100	–	Belarus
45	52	0	16	8	2	0	16	0	10	3	0	0	0	0	10	2	34	100	–	–	–	–	Belgium
40	47	4	13	10	6	0	8	0	6	1	3	0	0	0	8	1	40	100	83	96	97	87	Belize
23	32	2	11	9	6	0	3	0	1	13	9	21	1	2	5	2	15	100	61	84	–	–	Benin
33	50	2	16	11	8	0	7	0	5	14	7	0	0	0	8	1	19	100	77	65	–	100	Bhutan
32	46	2	13	12	7	0	8	0	3	14	8	0	0	0	7	1	22	100	72	71	77	47	Bolivia (Plurinational State of)
63	68	2	29	9	5	0	17	0	6	3	0	0	0	1	3	1	23	100	84	100	–	98	Bosnia and Herzegovina
50	54	2	21	12	8	0	7	0	3	11	6	0	6	2	5	1	16	100	73	95	–	76	Botswana
44	61	1	20	10	9	0	12	0	10	6	2	0	0	0	5	1	24	100	91	97	–	–	Brazil
53	53	0	23	7	2	0	14	0	7	4	1	0	0	0	11	2	30	100	–	100	–	–	Brunei Darussalam
54	55	2	22	11	2	0	15	0	3	14	1	0	0	0	4	1	24	100	–	100	–	–	Bulgaria
20	28	2	9	8	5	0	2	0	1	13	10	23	1	2	5	3	17	100	34	66	26	73	Burkina Faso
27	37	2	11	11	7	0	3	0	2	16	12	5	1	1	7	2	19	100	33	60	8	65	Burundi
35	44	2	17	7	5	0	9	0	4	12	6	0	3	0	3	2	30	100	72	78	–	–	Cabo Verde
30	47	2	14	12	8	0	8	0	4	15	7	1	0	2	8	1	19	100	59	71	–	50	Cambodia
26	30	2	8	10	6	0	2	0	2	15	11	12	3	0	6	3	20	100	62	64	–	56	Cameroon
54	65	0	28	9	3	0	18	0	8	2	0	0	0	0	5	1	26	100	99	100	–	–	Canada
27	31	3	10	10	4	1	1	0	1	12	9	26	3	0	3	4	12	100	38	54	–	51	Central African Republic
23	27	2	9	7	4	1	1	0	2	15	12	19	2	0	5	4	16	100	23	23	–	13	Chad
43	60	1	25	3	3	0	23	0	5	5	0	0	0	0	7	1	27	100	–	100	–	–	Chile
47	61	4	14	15	2	0	9	1	15	10	3	0	0	0	10	3	13	100	–	100	–	–	China
54	61	2	22	8	8	0	15	0	8	7	2	0	0	0	5	1	23	100	89	99	–	90	Colombia
32	40	2	13	11	8	1	3	0	2	13	9	15	1	0	5	2	16	100	–	82	–	88	Comoros
33	40	2	14	10	7	0	6	0	2	10	5	22	6	0	4	1	12	100	75	94	–	88	Congo
46	67	1	28	10	4	0	18	0	5	6	1	0	0	1	5	1	19	100	–	100	–	–	Cook Islands
53	67	1	24	9	2	0	28	0	4	2	1	0	0	0	3	2	26	100	86	99	–	–	Costa Rica
32	39	3	12	12	7	1	2	0	2	12	9	15	2	0	5	2	15	100	44	59	34	59	Côte d'Ivoire
65	61	1	15	6	4	0	16	0	20	1	0	0	0	0	3	4	32	100	–	100	–	–	Croatia
53	47	4	14	7	6	0	9	0	6	7	1	0	0	0	7	1	38	100	100	100	–	–	Cuba
51	51	0	18	5	3	0	18	0	6	3	0	0	0	0	5	1	40	100	–	–	–	–	Cyprus
68	58	1	20	9	7	0	14	0	7	4	1	0	0	0	6	2	30	100	–	100	–	–	Czech Republic
47	55	1	20	10	6	0	10	0	7	15	5	0	0	0	7	2	16	100	94	100	–	100	Democratic People's Republic of Korea

Country estimates of child mortality,causes of under-five deaths, and coverage indicators

Countries and areas	Under-five mortality rank 2013	Under-five mortality rate (deaths per 1,000 live births) 1990	2000	2013	Decline (%) 1990–2013	Annual rate of reduction (%) 1990–2013	Number of under-five deaths (thousands) 1990	2013	Infant mortality rate (deaths per 1,000 live births) 1990	2013	Number of infant deaths (thousands) 1990	2013	Neonatal mortality rate (deaths per 1,000 live births) 1990	2013	Number of neonatal deaths (thousands) 1990	2013
Democratic Republic of the Congo	**8**	176	176	119	33	1.7	275	320	115	86	183	235	48	38	76	105
Denmark	**167**	9	6	4	61	4.1	1	0	7	3	0	0	5	2	0	0
Djibouti	**36**	119	101	70	41	2.3	3	2	92	57	3	1	44	31	1	1
Dominica	**131**	17	16	11	34	1.8	0	0	14	10	0	0	12	8	0	0
Dominican Republic	**78**	60	41	28	53	3.3	13	6	46	24	10	5	28	16	6	3
Ecuador	**87**	57	34	23	60	4.0	17	7	44	19	14	6	21	11	7	3
Egypt	**89**	85	45	22	74	5.9	154	42	63	19	114	35	32	12	58	22
El Salvador	**106**	60	32	16	74	5.8	10	2	46	14	8	2	19	7	3	1
Equatorial Guinea	**17**	184	142	96	48	2.8	3	2	124	69	2	2	48	33	1	1
Eritrea	**53**	151	89	50	67	4.8	21	11	93	36	13	8	36	18	5	4
Estonia	**185**	20	11	3	83	7.7	0	0	17	3	0	0	12	2	0	0
Ethiopia	**39**	205	146	64	69	5.0	447	196	122	44	268	136	55	28	120	84
Fiji	**83**	30	24	24	21	1.0	1	0	25	20	1	0	13	10	0	0
Finland	**185**	7	4	3	61	4.1	0	0	6	2	0	0	4	1	0	0
France	**167**	9	5	4	53	3.3	6	3	7	4	5	3	4	2	2	2
Gabon	**42**	93	85	56	39	2.2	3	3	60	39	2	2	33	23	1	1
Gambia	**31**	170	119	74	57	3.6	7	6	80	49	3	4	46	28	2	2
Georgia	**122**	47	36	13	72	5.6	4	1	41	12	4	1	28	10	3	1
Germany	**167**	9	5	4	54	3.4	7	3	7	3	6	2	4	2	3	2
Ghana	**28**	128	101	78	39	2.1	70	62	80	52	44	41	40	29	22	23
Greece	**167**	13	8	4	65	4.5	1	0	11	4	1	0	9	3	1	0
Grenada	**127**	22	16	12	47	2.7	0	0	18	11	0	0	10	6	0	0
Guatemala	**72**	81	51	31	62	4.2	27	15	60	26	20	12	29	15	10	7
Guinea	**11**	238	170	101	58	3.7	63	42	140	65	37	27	53	33	14	14
Guinea-Bissau	**6**	225	181	124	45	2.6	9	7	133	78	5	5	61	44	2	3
Guyana	**65**	61	49	37	40	2.2	1	1	47	30	1	0	29	20	1	0
Haiti	**32**	145	104	73	50	3.0	37	19	100	55	25	14	38	25	9	7
Holy See	**–**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Honduras	**89**	59	38	22	62	4.3	11	5	46	19	8	4	25	12	4	2
Hungary	**155**	19	11	6	68	4.9	3	1	17	5	3	1	13	4	2	0
Iceland	**194**	6	4	2	67	4.8	0	0	5	2	0	0	3	1	0	0
India	**47**	126	91	53	58	3.8	3,333	1,340	88	41	2,339	1,053	51	29	1,362	748
Indonesia	**76**	84	52	29	65	4.6	387	136	62	25	281	112	31	14	138	66
Iran (Islamic Republic of)	**100**	57	35	17	70	5.3	107	25	44	14	83	21	27	10	50	15
Iraq	**69**	53	45	34	36	2.0	35	35	42	28	28	29	26	19	17	19
Ireland	**167**	9	7	4	59	3.8	0	0	8	3	0	0	5	2	0	0
Israel	**167**	12	7	4	66	4.6	1	1	10	3	1	1	6	2	1	0
Italy	**167**	10	6	4	63	4.3	5	2	8	3	5	2	6	2	4	1
Jamaica	**100**	30	24	17	44	2.5	2	1	25	14	1	1	17	10	1	1
Japan	**185**	6	5	3	54	3.4	8	3	5	2	5	2	3	1	3	1
Jordan	**94**	37	28	19	49	2.9	4	4	30	16	3	3	19	11	2	2
Kazakhstan	**106**	53	44	16	69	5.1	21	5	45	15	18	5	23	9	9	3
Kenya	**33**	99	111	71	28	1.5	96	106	64	48	63	71	33	26	32	40
Kiribati	**41**	95	71	58	39	2.1	0	0	69	45	0	0	30	22	0	0
Kuwait	**134**	17	13	10	43	2.5	1	1	14	8	1	1	9	5	0	0
Kyrgyzstan	**83**	66	49	24	63	4.3	9	4	55	22	8	3	28	13	4	2
Lao People's Democratic Republic	**33**	162	117	71	56	3.6	28	13	111	54	20	10	48	29	9	5
Latvia	**146**	20	17	8	59	3.9	1	0	17	7	1	0	13	5	1	0
Lebanon	**142**	32	20	9	72	5.5	2	1	27	8	2	1	16	5	1	0
Lesotho	**14**	86	115	98	-14	-0.6	5	6	70	73	4	4	45	44	2	3

Country estimates of child mortality,causes of under-five deaths, and coverage indicators

Share of neonatal deaths in under-five deaths(%)		Deaths among children under 5 years of age due to: (%) 2013																	Coverage Indicators (%) latest available				
		Neonatal Period (0–27 days)								Post-Neonatal (1–59 months)													
1990	2013	Pneumonia	Preterm	Intrapartum	Sepis	Tetanus	Congenital	Diarrhoea	Other	Pneumonia	Diarrhoea	Malaria	AIDS	Measles	Injuries	Meningitis	Other	Total	Antenatal care (at least 4 visits)	Skilled attendant at birth	Postnatal care for newborns	Birth registration (children under 1)	Countries and areas
28	33	2	11	9	5	1	2	0	2	13	10	15	1	5	5	3	15	100	45	80	–	23	Democratic Republic of the Congo
52	68	0	40	6	1	0	10	0	11	1	1	0	0	0	2	0	27	100	–	–	–	–	Denmark
38	45	2	16	12	7	1	4	0	3	13	9	2	3	2	5	2	19	100	7	93	–	91	Djibouti
68	75	0	9	47	14	0	0	0	5	6	0	0	0	0	0	0	19	100	–	100	–	–	Dominica
47	57	2	20	11	8	0	11	0	5	11	5	0	1	0	6	1	19	100	95	98	–	–	Dominican Republic
38	47	2	19	6	4	1	11	0	4	10	4	0	0	0	10	2	28	100	58	98	–	–	Ecuador
38	54	2	22	11	3	1	12	0	4	9	5	0	0	0	3	0	28	100	66	79	8	96	Egypt
31	42	2	16	6	4	1	9	0	4	11	5	0	2	0	8	2	31	100	78	96	–	–	El Salvador
27	35	2	13	10	6	1	2	0	2	13	8	15	7	0	4	3	14	100	–	65	–	27	Equatorial Guinea
24	36	2	8	11	7	0	6	0	2	18	10	0	1	3	9	2	22	100	41	28	–	–	Eritrea
61	50	0	7	10	11	0	17	0	6	7	1	0	0	0	17	4	22	100	–	100	–	–	Estonia
27	43	3	11	15	8	1	4	0	2	15	9	3	2	2	6	2	16	100	19	10	–	7	Ethiopia
41	43	2	17	6	5	0	9	0	4	11	4	0	0	0	12	3	26	100	–	100	–	–	Fiji
58	50	1	16	6	3	0	18	0	7	4	0	0	0	0	6	1	39	100	–	–	–	–	Finland
39	55	0	14	10	3	0	16	0	12	2	1	0	0	0	6	1	34	100	–	–	–	–	France
36	41	2	14	11	7	0	5	0	2	10	6	19	2	0	4	1	15	100	78	89	25	88	Gabon
28	39	2	11	12	8	1	4	0	2	11	7	20	1	0	4	2	16	100	72	57	–	35	Gambia
58	73	3	27	8	7	0	19	0	8	4	1	0	0	0	5	1	16	100	90	100	–	99	Georgia
43	57	0	24	6	2	0	17	0	7	2	0	0	0	0	5	0	36	100	–	–	–	–	Germany
31	38	2	12	11	7	0	3	0	2	11	8	20	1	1	4	2	16	100	87	68	83	45	Ghana
71	61	0	31	6	0	0	21	0	3	2	0	0	0	0	4	0	32	100	–	–	–	–	Greece
45	48	0	14	14	7	0	7	0	7	1	0	0	0	0	3	0	48	100	–	99	–	–	Grenada
36	48	2	11	14	9	0	10	0	3	15	7	0	1	0	8	1	18	100	–	52	–	–	Guatemala
22	33	2	9	11	6	1	2	0	2	11	8	28	2	1	4	2	12	100	50	45	–	37	Guinea
26	36	3	10	12	7	1	2	0	2	12	9	18	4	0	4	3	14	100	68	43	–	14	Guinea-Bissau
49	53	2	19	12	6	0	5	0	10	4	5	8	1	0	6	1	22	100	79	92	–	85	Guyana
25	34	2	11	9	6	0	3	0	3	18	12	1	1	0	7	3	24	100	67	37	19	57	Haiti
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Holy See
42	52	4	22	8	7	0	9	0	3	9	6	0	1	0	2	1	28	100	89	83	–	77	Honduras
69	59	1	31	5	3	0	15	0	3	4	0	0	0	0	3	1	33	100	–	99	–	–	Hungary
50	40	0	27	0	0	0	0	0	13	0	0	0	0	0	3	0	57	100	–	–	–	–	Iceland
41	56	2	24	11	8	1	5	0	5	11	10	1	0	3	3	2	14	100	37	52	–	39	India
36	48	1	18	9	6	0	9	0	5	15	5	2	1	5	7	2	16	100	88	83	48	59	Indonesia
47	62	2	20	11	7	0	15	0	7	12	3	0	0	0	6	1	16	100	94	96	–	–	Iran (Islamic Republic of)
50	55	2	19	13	9	0	10	0	3	13	6	0	0	0	7	1	17	100	50	91	–	98	Iraq
53	60	1	20	7	1	0	27	0	4	1	0	0	0	0	4	1	33	100	–	100	–	–	Ireland
53	50	0	23	3	2	0	17	0	5	1	0	0	0	0	6	1	41	100	–	–	–	–	Israel
65	61	0	25	7	4	0	14	0	11	1	0	0	0	0	4	1	34	100	68	–	–	–	Italy
57	63	2	25	8	7	0	14	0	7	6	2	0	1	0	7	1	20	100	87	98	–	–	Jamaica
39	35	1	7	4	2	0	16	0	5	6	2	0	0	0	13	1	44	100	–	–	–	–	Japan
52	60	2	25	9	6	0	15	0	3	8	4	0	0	0	7	1	21	100	94	100	–	–	Jordan
43	54	1	16	10	6	0	15	0	5	12	4	0	0	0	8	1	21	100	87	100	–	99	Kazakhstan
34	37	2	10	13	6	1	3	0	2	15	10	4	4	0	6	2	20	100	47	44	–	57	Kenya
31	37	2	11	10	6	0	4	0	4	17	11	0	0	0	8	2	25	100	71	80	–	94	Kiribati
54	50	1	22	2	1	0	24	0	1	7	0	0	0	0	6	1	35	100	–	100	–	–	Kuwait
43	55	2	15	13	7	0	14	0	4	12	5	0	0	0	7	1	19	100	–	99	–	91	Kyrgyzstan
30	41	2	10	13	7	1	3	0	4	17	11	1	0	0	7	2	21	100	37	42	41	60	Lao People's Democratic Republic
62	62	1	8	32	7	0	13	0	1	1	0	0	0	0	4	1	32	100	–	100	–	–	Latvia
49	58	2	24	9	4	0	12	0	7	5	2	0	1	0	6	0	28	100	–	98	–	99	Lebanon
52	45	3	14	14	8	1	3	0	3	10	7	0	19	0	4	2	12	100	70	62	–	35	Lesotho

Numbers and percentages are rounded and therefore may not sum to totals. All calculations are based on unrounded numbers.

Country estimates of child mortality,causes of under-five deaths, and coverage indicators

Countries and areas	Under-five mortality rank 2013	Under-five mortality rate (deaths per 1,000 live births) 1990	2000	2013	Decline (%) 1990–2013	Annual rate of reduction (%) 1990–2013	Number of under-five deaths (thousands) 1990	2013	Infant mortality rate (deaths per 1,000 live births) 1990	2013	Number of infant deaths (thousands) 1990	2013	Neonatal mortality rate (deaths per 1,000 live births) 1990	2013	Number of neonatal deaths (thousands) 1990	2013
Liberia	**33**	248	175	71	71	5.4	23	10	165	54	15	8	52	26	5	4
Libya	**110**	42	28	15	66	4.7	5	2	36	12	4	2	21	9	2	1
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	**160**	17	12	5	70	5.3	1	0	13	4	1	0	9	3	1	0
Luxembourg	**194**	9	5	2	77	6.4	0	0	7	2	0	0	4	1	0	0
Madagascar	**42**	161	111	56	65	4.6	82	43	98	40	52	31	41	21	22	17
Malawi	**37**	245	174	68	72	5.6	103	41	143	44	61	27	50	23	21	14
Malaysia	**142**	17	10	9	49	2.9	8	5	14	7	7	4	8	4	4	2
Maldives	**134**	94	44	10	89	9.8	1	0	68	8	1	0	36	6	0	0
Mali	**7**	254	220	123	52	3.2	91	82	131	78	47	53	59	40	21	28
Malta	**155**	11	8	6	46	2.7	0	0	10	5	0	0	7	4	0	0
Marshall Islands	**63**	50	42	38	24	1.2	0	0	39	31	0	0	20	16	0	0
Mauritania	**19**	118	113	90	24	1.2	9	12	78	67	6	9	41	35	3	4
Mauritius	**118**	23	19	14	38	2.1	0	0	20	13	0	0	16	9	0	0
Mexico	**110**	46	26	15	69	5.1	112	33	37	13	90	28	17	7	41	15
Micronesia (Federated States of)	**67**	55	53	36	34	1.8	0	0	43	30	0	0	22	16	0	0
Monaco	**167**	8	5	4	52	3.2	0	0	6	3	0	0	4	2	0	0
Mongolia	**71**	108	65	32	71	5.3	8	2	77	26	6	2	31	13	2	1
Montenegro	**160**	17	14	5	68	5.0	0	0	15	5	0	0	11	4	0	0
Morocco	**73**	81	51	30	62	4.2	57	24	64	26	44	21	36	18	25	14
Mozambique	**21**	237	169	87	63	4.3	135	83	158	62	89	59	56	30	32	29
Myanmar	**50**	109	80	51	53	3.3	119	46	78	40	82	36	42	26	45	23
Namibia	**53**	74	76	50	32	1.7	4	3	50	35	3	2	29	22	2	1
Nauru	**65**	58	41	37	36	2.0	0	0	45	30	0	0	28	20	0	0
Nepal	**61**	142	82	40	72	5.6	95	23	99	32	67	18	53	23	36	13
Netherlands	**167**	8	6	4	52	3.2	2	1	7	3	1	1	5	3	1	0
New Zealand	**155**	11	7	6	44	2.5	1	0	9	5	1	0	4	3	0	0
Nicaragua	**83**	67	40	24	65	4.5	10	3	51	20	7	3	25	12	4	2
Niger	**10**	327	227	104	68	5.0	129	86	138	60	54	51	50	28	19	24
Nigeria	**9**	213	188	117	45	2.6	852	804	126	74	503	518	52	37	206	262
Niue	**81**	14	23	25	-78	-2.5	0	0	12	21	0	0	7	12	0	0
Norway	**185**	9	5	3	68	4.9	1	0	7	2	0	0	4	2	0	0
Oman	**131**	39	17	11	71	5.4	3	1	32	10	2	1	19	7	1	1
Pakistan	**23**	139	113	86	38	2.1	620	394	106	69	480	316	56	42	255	194
Palau	**97**	36	27	18	52	3.1	0	0	31	15	0	0	16	9	0	0
Panama	**97**	31	26	18	42	2.4	2	1	26	15	2	1	13	8	1	1
Papua New Guinea	**40**	89	78	61	31	1.6	12	13	65	47	9	10	31	24	4	5
Paraguay	**89**	46	34	22	53	3.2	6	3	37	19	5	3	22	12	3	2
Peru	**100**	80	40	17	79	6.8	52	10	57	13	37	8	26	8	17	5
Philippines	**73**	59	40	30	49	2.9	119	71	41	24	85	56	23	14	46	33
Poland	**160**	17	9	5	70	5.2	9	2	15	5	8	2	11	3	6	1
Portugal	**167**	15	7	4	74	5.9	2	0	12	3	1	0	7	2	1	0
Qatar	**146**	21	12	8	61	4.0	0	0	18	7	0	0	10	4	0	0
Republic of Korea	**167**	7	6	4	48	2.8	4	2	6	3	3	2	3	2	2	1
Republic of Moldova	**110**	32	31	15	52	3.2	3	1	27	13	2	1	14	8	1	0
Romania	**127**	38	27	12	68	5.0	16	3	31	11	14	2	17	7	7	2
Russian Federation	**134**	26	23	10	61	4.1	59	17	22	9	49	14	15	5	33	9
Rwanda	**48**	152	182	52	66	4.7	50	22	93	37	31	16	39	20	13	9
Saint Kitts and Nevis	**134**	29	18	10	64	4.5	0	0	23	8	0	0	17	7	0	0
Saint Lucia	**110**	23	18	15	36	1.9	0	0	19	13	0	0	13	9	0	0

Country estimates of child mortality,causes of under-five deaths, and coverage indicators

Share of neonatal deaths in under-five deaths(%)		Deaths among children under 5 years of age due to: (%) 2013																	Coverage Indicators (%) latest available				
		Neonatal Period (0–27 days)								Post-Neonatal (1–59 months)													
1990	2013	Pneumonia	Preterm	Intrapartum	Sepis	Tetanus	Congenital	Diarrhoea	Other	Pneumonia	Diarrhoea	Malaria	AIDS	Measles	Injuries	Meningitis	Other	Total	Antenatal care (at least 4 visits)	Skilled attendant at birth	Postnatal care for newborns	Birth registration (children under 1)	Countries and areas
21	36	2	9	12	7	0	3	0	2	12	8	22	1	0	5	2	15	100	66	46	–	4	Liberia
49	60	2	23	9	5	0	16	0	5	6	2	0	0	0	8	1	24	100	–	100	–	–	Libya
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Liechtenstein
56	55	1	14	9	11	0	20	0	2	3	1	0	0	0	10	2	29	100	–	100	–	–	Lithuania
48	46	0	18	5	5	0	9	0	9	2	0	0	0	0	17	5	30	100	–	100	–	–	Luxembourg
27	39	2	11	12	7	0	4	0	2	16	9	8	1	0	7	2	18	100	49	44	–	73	Madagascar
20	34	2	10	10	6	0	4	0	2	12	7	14	12	1	5	2	13	100	46	71	–	–	Malawi
50	52	2	21	7	3	1	13	0	6	5	2	0	1	0	7	2	31	100	–	99	–	–	Malaysia
38	62	2	23	7	4	0	19	0	6	5	1	0	0	0	4	1	27	100	85	95	–	91	Maldives
23	34	2	11	9	6	1	2	0	3	14	11	14	1	2	5	3	16	100	35	56	–	78	Mali
66	64	0	27	5	2	0	27	0	4	0	0	0	0	0	1	6	28	100	–	–	–	–	Malta
40	42	1	17	8	6	0	7	0	3	18	8	0	0	0	8	2	23	100	77	99	–	95	Marshall Islands
36	39	2	15	9	8	1	3	0	1	14	10	10	0	1	5	3	19	100	48	65	–	51	Mauritania
68	61	3	26	5	7	0	16	0	5	7	1	0	0	0	6	1	24	100	–	98	–	–	Mauritius
36	45	2	16	6	6	0	11	0	3	9	3	0	0	0	7	1	35	100	86	96	–	–	Mexico
39	43	2	15	10	6	0	8	0	3	16	8	0	0	0	8	2	23	100	–	100	–	–	Micronesia (Federated States of)
50	100	0	39	12	4	0	33	0	12	0	0	0	0	0	0	0	0	100	–	–	–	–	Monaco
29	42	1	13	9	5	0	9	0	4	15	8	0	0	0	8	1	26	100	81	99	–	95	Mongolia
64	66	4	23	31	2	0	6	0	0	1	0	0	0	0	1	1	32	100	–	100	–	97	Montenegro
44	60	2	21	13	9	0	10	0	5	10	5	0	0	0	6	1	17	100	31	74	–	–	Morocco
23	35	2	11	10	7	0	3	0	2	12	8	18	7	0	5	2	14	100	51	54	–	29	Mozambique
38	51	2	19	11	6	0	4	0	7	13	7	2	0	3	6	2	16	100	73	71	–	70	Myanmar
40	44	2	16	11	7	0	5	0	2	13	7	0	7	4	6	1	18	100	70	81	–	–	Namibia
45	60	2	21	13	8	0	10	0	5	10	5	0	0	2	5	1	16	100	40	97	–	78	Nauru
38	57	2	18	13	10	1	7	0	6	13	7	0	0	0	7	1	15	100	50	36	30	19	Nepal
57	65	0	16	10	5	0	23	0	9	2	0	0	0	0	4	2	27	100	–	–	–	–	Netherlands
39	47	2	17	8	2	0	13	0	5	3	2	0	0	0	16	1	31	100	–	–	–	–	New Zealand
37	49	3	19	8	4	1	10	0	4	12	7	0	1	0	3	2	27	100	78	74	–	–	Nicaragua
15	27	2	9	7	4	1	1	0	3	16	11	19	0	1	6	3	16	100	15	29	–	30	Niger
24	33	2	11	10	5	1	2	0	2	13	9	21	3	1	4	3	14	100	57	49	–	37	Nigeria
0	0	0	0	0	0	0	0	0	0	23	4	0	0	0	19	5	48	100	–	100	–	–	Niue
48	57	0	15	7	1	0	20	0	14	2	1	0	0	0	2	1	37	100	–	–	–	–	Norway
48	59	1	25	10	3	1	16	0	3	6	1	0	0	0	6	1	28	100	96	99	–	–	Oman
41	49	3	18	11	10	1	3	0	3	15	10	0	0	1	6	3	17	100	28	43	–	21	Pakistan
45	40	1	17	6	3	0	10	0	3	9	1	0	0	3	19	3	24	100	81	100	–	–	Palau
43	47	2	16	5	7	0	13	0	4	12	10	0	0	0	6	1	25	100	–	89	–	–	Panama
34	39	2	11	12	7	1	4	0	3	15	9	11	1	0	6	2	17	100	55	53	–	–	Papua New Guinea
48	56	3	23	7	7	0	12	0	3	9	5	0	0	0	4	2	23	100	91	82	–	–	Paraguay
33	48	2	19	7	4	1	11	0	4	9	4	0	1	0	7	2	30	100	94	87	–	–	Peru
39	46	1	14	10	7	0	9	0	3	15	7	0	0	0	9	1	21	100	78	62	–	88	Philippines
64	60	1	29	5	3	0	19	0	3	3	0	0	0	0	4	1	32	100	–	100	–	–	Poland
49	52	1	20	6	4	0	15	0	5	2	0	0	0	0	8	1	37	100	–	100	–	–	Portugal
47	54	0	23	7	3	0	15	0	6	4	0	0	0	1	8	1	33	100	–	100	–	–	Qatar
42	44	0	23	4	2	0	9	0	5	3	1	0	0	0	9	2	42	100	–	–	–	–	Republic of Korea
43	49	7	12	4	4	0	19	0	3	11	1	0	0	0	13	2	24	100	89	99	–	98	Republic of Moldova
46	59	7	25	5	1	0	17	0	4	20	1	0	0	0	6	1	13	100	76	99	–	–	Romania
56	52	1	20	6	4	0	16	0	6	7	1	0	1	0	8	2	29	100	–	100	–	–	Russian Federation
26	39	2	10	12	7	0	6	0	2	16	9	4	2	1	8	2	20	100	35	69	5	40	Rwanda
62	70	0	17	26	9	0	9	0	9	2	0	0	2	0	10	0	16	100	–	100	–	–	Saint Kitts and Nevis
58	61	9	0	0	0	0	32	0	20	10	0	0	0	0	0	0	29	100	–	100	100	–	Saint Lucia

Numbers and percentages are rounded and therefore may not sum to totals. All calculations are based on unrounded numbers.

Country estimates of child mortality,causes of under-five deaths, and coverage indicators

Countries and areas	Under-five mortality rank 2013	Under-five mortality rate (deaths per 1,000 live births) 1990	2000	2013	Decline (%) 1990–2013	Annual rate of reduction (%) 1990–2013	Number of under-five deaths (thousands) 1990	2013	Infant mortality rate (deaths per 1,000 live births) 1990	2013	Number of infant deaths (thousands) 1990	2013	Neonatal mortality rate (deaths per 1,000 live births) 1990	2013	Number of neonatal deaths (thousands) 1990	2013
Saint Vincent and the Grenadines	**94**	25	22	19	23	1.1	0	0	21	17	0	0	15	12	0	0
Samoa	**97**	31	22	18	42	2.3	0	0	26	16	0	0	12	8	0	0
San Marino	**185**	11	6	3	72	5.5	0	0	10	3	0	0	4	1	0	0
Sao Tome and Principe	**50**	110	89	51	54	3.4	0	0	70	37	0	0	32	19	0	0
Saudi Arabia	**106**	44	23	16	65	4.5	24	9	35	13	19	7	21	9	11	5
Senegal	**44**	141	137	55	61	4.1	44	29	71	44	22	23	42	23	13	12
Serbia	**150**	28	13	7	76	6.3	4	1	24	6	4	1	17	4	3	0
Seychelles	**118**	17	14	14	14	0.7	0	0	14	12	0	0	10	9	0	0
Sierra Leone	**2**	268	232	161	40	2.2	46	34	158	107	27	23	57	44	10	9
Singapore	**185**	8	4	3	64	4.4	0	0	6	2	0	0	4	1	0	0
Slovakia	**150**	18	12	7	59	3.9	1	0	16	6	1	0	12	4	1	0
Slovenia	**185**	10	6	3	72	5.6	0	0	9	2	0	0	5	2	0	0
Solomon Islands	**73**	39	34	30	22	1.1	0	1	32	25	0	0	16	13	0	0
Somalia	**4**	180	174	146	19	0.9	50	65	108	90	31	40	52	46	15	21
South Africa	**58**	61	74	44	28	1.4	65	47	47	33	50	35	20	15	22	16
South Sudan	**13**	253	183	99	61	4.1	67	39	150	64	40	25	65	39	17	16
Spain	**167**	11	7	4	62	4.2	5	2	9	4	4	2	7	3	3	1
Sri Lanka	**134**	21	16	10	55	3.5	7	4	18	8	6	3	12	6	4	2
State of Palestine	**89**	43	30	22	50	3.0	4	3	35	19	3	2	21	12	2	2
Sudan	**30**	128	108	77	40	2.2	101	94	80	51	64	63	41	30	33	37
Suriname	**87**	48	35	23	52	3.2	0	0	41	20	0	0	22	12	0	0
Swaziland	**27**	74	123	80	-8	-0.3	3	3	55	56	2	2	30	30	1	1
Sweden	**185**	7	4	3	57	3.6	1	0	6	2	1	0	4	2	0	0
Switzerland	**167**	8	6	4	49	2.9	1	0	7	4	1	0	4	3	0	0
Syrian Arab Republic	**110**	37	23	15	61	4.1	17	8	30	12	14	6	17	8	8	4
Tajikistan	**56**	108	94	48	56	3.6	24	13	85	41	19	11	38	22	8	6
Thailand	**122**	37	23	13	65	4.5	40	9	30	11	33	8	19	8	20	5
The former Yugoslav Republic of Macedonia	**150**	37	16	7	82	7.4	1	0	33	6	1	0	17	4	1	0
Timor-Leste	**44**	172	107	55	68	5.0	5	2	130	46	4	2	48	24	1	1
Togo	**24**	146	122	85	42	2.4	23	20	90	56	14	14	42	30	7	7
Tonga	**127**	23	18	12	47	2.8	0	0	19	10	0	0	11	6	0	0
Trinidad and Tobago	**93**	31	29	21	30	1.6	1	0	27	19	1	0	20	15	0	0
Tunisia	**110**	52	31	15	71	5.4	11	3	41	13	9	2	24	9	5	2
Turkey	**94**	74	42	19	74	5.9	103	25	56	17	77	21	31	11	43	14
Turkmenistan	**44**	91	82	55	39	2.2	12	6	73	47	10	5	32	23	4	3
Tuvalu	**76**	57	43	29	49	2.9	0	0	44	24	0	0	22	13	0	0
Uganda	**38**	179	147	66	63	4.3	146	102	107	44	89	68	40	22	33	35
Ukraine	**134**	20	18	10	49	2.9	14	5	17	9	12	4	9	5	6	2
United Arab Emirates	**146**	17	11	8	50	3.0	1	1	14	7	1	1	9	5	0	1
United Kingdom	**160**	9	7	5	51	3.1	7	4	8	4	6	3	5	3	4	2
United Republic of Tanzania	**48**	167	132	52	69	5.1	180	95	101	36	110	68	43	21	47	39
United States	**150**	11	8	7	38	2.1	44	29	9	6	37	25	6	4	22	17
Uruguay	**131**	23	17	11	52	3.2	1	1	20	10	1	0	11	6	1	0
Uzbekistan	**59**	71	64	43	40	2.3	52	26	59	37	43	23	20	14	15	9
Vanuatu	**100**	33	23	17	49	2.9	0	0	27	15	0	0	15	9	0	0
Venezuela (Bolivarian Republic of)	**110**	30	21	15	49	3.0	17	9	25	13	14	8	15	8	9	5
Viet Nam	**83**	51	35	24	53	3.3	99	33	37	19	72	26	23	13	45	18
Yemen	**50**	125	96	51	59	3.9	71	38	88	40	50	30	43	24	25	18
Zambia	**21**	193	169	87	55	3.4	63	51	115	56	38	34	44	29	15	18
Zimbabwe	**20**	75	103	89	-19	-0.7	28	39	50	55	19	24	31	39	12	17

Country estimates of child mortality,causes of under-five deaths, and coverage indicators

Share of neonatal deaths in under-five deaths(%)		Deaths among children under 5 years of age due to: (%) 2013																	Coverage Indicators (%) latest available				
		Neonatal Period (0–27 days)								Post-Neonatal (1–59 months)													
1990	2013	Pneumonia	Preterm	Intrapartum	Sepis	Tetanus	Congenital	Diarrhoea	Other	Pneumonia	Diarrhoea	Malaria	AIDS	Measles	Injuries	Meningitis	Other	Total	Antenatal care (at least 4 visits)	Skilled attendant at birth	Postnatal care for newborns	Birth registration (children under 1)	Countries and areas
62	62	0	37	12	2	0	8	0	2	2	0	0	1	0	6	0	30	100	–	99	–	–	Saint Vincent and the Grenadines
39	42	3	17	5	4	0	10	0	2	8	3	0	0	1	6	2	38	100	58	81	–	35	Samoa
33	0	0	0	0	0	0	0	0	0	6	0	0	0	0	15	2	76	100	–	–	–	–	San Marino
28	38	2	10	11	7	0	6	0	2	14	8	8	1	1	7	2	21	100	72	82	–	51	Sao Tome and Principe
46	56	1	23	9	4	0	14	0	4	6	2	0	0	0	8	1	27	100	–	97	–	–	Saudi Arabia
30	42	2	13	12	8	0	5	0	2	11	6	17	1	2	5	1	15	100	50	65	41	72	Senegal
59	63	1	37	8	2	0	11	0	4	4	0	0	0	0	4	1	28	100	94	100	–	98	Serbia
63	64	1	27	9	9	0	14	0	3	4	1	0	0	0	3	1	28	100	–	–	–	–	Seychelles
21	28	2	7	8	5	1	2	0	1	14	13	14	1	5	5	3	18	100	75	63	–	73	Sierra Leone
52	40	2	16	6	1	0	11	0	5	6	1	0	0	0	6	1	46	100	–	–	–	–	Singapore
68	58	1	30	5	1	0	19	0	3	7	0	0	0	0	5	1	29	100	–	99	–	–	Slovakia
52	56	0	39	3	6	0	6	0	3	2	1	0	0	0	5	0	37	100	–	100	–	–	Slovenia
42	44	2	12	11	7	0	10	0	2	16	7	2	0	0	9	1	21	100	65	86	–	–	Solomon Islands
30	32	3	9	10	4	2	1	0	2	16	12	2	0	11	5	5	17	100	6	33	–	3	Somalia
33	33	2	11	8	4	0	2	0	5	14	7	0	17	2	6	2	19	100	87	91	–	–	South Africa
26	40	3	14	12	6	2	2	0	2	17	10	5	3	0	5	4	16	100	17	19	–	34	South Sudan
62	61	0	18	9	7	0	18	0	9	2	0	0	0	0	4	1	32	100	–	–	–	–	Spain
56	62	2	23	8	4	1	17	0	7	4	2	0	0	0	4	1	28	100	93	99	–	97	Sri Lanka
49	56	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	94	99	–	98	State of Palestine
33	39	2	12	11	8	1	3	0	2	16	11	2	0	0	7	3	21	100	47	23	–	57	Sudan
44	54	0	23	9	9	0	9	0	5	9	1	0	4	0	6	2	24	100	67	91	–	98	Suriname
41	37	2	12	11	7	0	3	0	2	13	9	0	14	0	6	2	18	100	77	82	–	41	Swaziland
53	53	0	11	9	4	0	17	0	11	4	0	0	0	0	4	1	39	100	–	–	–	–	Sweden
46	72	0	30	9	3	0	21	0	8	1	0	0	0	0	4	1	22	100	–	–	–	–	Switzerland
46	54	3	23	10	5	1	9	0	3	6	10	0	0	0	10	0	20	100	64	96	–	89	Syrian Arab Republic
35	47	2	13	13	8	0	7	0	3	15	9	0	0	0	7	2	20	100	49	87	54	80	Tajikistan
51	60	2	22	7	5	1	17	0	5	6	3	0	1	1	5	1	24	100	80	100	–	99	Thailand
45	67	1	51	7	2	0	5	0	1	5	1	0	0	0	2	5	21	100	94	98	–	99	The former Yugoslav Republic of Macedonia
27	44	2	10	14	8	0	5	0	4	16	9	4	0	0	7	2	17	100	55	29	–	30	Timor-Leste
29	37	2	11	11	7	1	3	0	2	12	8	18	2	1	5	2	16	100	55	59	–	72	Togo
47	53	3	22	6	5	0	14	0	2	6	2	0	0	0	7	2	30	100	–	98	–	–	Tonga
64	71	5	27	9	4	0	17	0	9	3	1	0	1	0	7	1	18	100	–	98	–	88	Trinidad and Tobago
46	59	2	21	10	4	1	15	0	6	6	2	0	0	0	5	1	26	100	85	99	98	98	Tunisia
41	58	2	23	9	5	0	13	0	7	8	1	0	0	0	5	2	26	100	74	91	–	89	Turkey
36	42	2	15	10	6	0	5	0	5	15	9	0	0	0	7	2	25	100	83	100	–	87	Turkmenistan
40	50	3	21	8	5	0	10	0	4	12	4	0	0	0	9	3	22	100	67	98	–	54	Tuvalu
22	34	2	11	9	6	0	3	0	2	14	8	13	7	1	6	2	16	100	48	57	11	25	Uganda
43	47	2	20	6	3	0	11	0	5	8	2	0	1	0	8	2	32	100	75	100	99	99	Ukraine
56	59	0	24	8	2	0	18	0	7	4	1	0	0	0	7	0	29	100	–	100	–	–	United Arab Emirates
50	60	1	33	6	1	0	17	0	2	3	0	0	0	0	3	1	32	100	–	–	–	–	United Kingdom
26	41	2	10	12	8	0	6	0	2	13	7	10	6	0	6	1	16	100	43	49	–	15	United Republic of Tanzania
51	58	0	26	4	2	0	15	0	10	3	2	0	0	0	11	1	26	100	–	–	–	–	United States
48	52	1	17	4	10	0	16	0	4	11	1	0	0	0	6	3	27	100	90	100	–	–	Uruguay
28	33	1	11	7	4	0	6	0	3	18	10	0	0	0	9	2	29	100	–	100	–	100	Uzbekistan
45	50	3	22	9	5	1	9	0	2	8	6	2	0	0	3	2	30	100	–	74	–	38	Vanuatu
51	56	3	23	9	9	0	9	0	3	7	5	0	0	0	11	1	20	100	–	95	–	–	Venezuela (Bolivarian Republic of)
45	53	4	21	7	6	0	8	0	6	8	12	0	1	2	3	2	19	100	60	93	–	85	Viet Nam
35	48	2	14	13	9	1	5	0	3	15	9	1	0	1	7	2	17	100	14	36	–	–	Yemen
23	35	2	10	11	6	1	2	0	2	13	9	16	6	1	5	2	14	100	60	47	–	13	Zambia
41	45	3	14	13	8	1	3	0	2	12	9	1	9	2	5	2	16	100	65	66	12	35	Zimbabwe

Numbers and percentages are rounded and therefore may not sum to totals. All calculations are based on unrounded numbers.

Regional estimates of child mortality,causes of under-five deaths, and coverage indicators

Region	Under-five mortality rate (deaths per 1,000 live births) 1990	2000	2013	Decline (%) 1990–2013	Annual rate of reduction (%) 1990–2013	Number of under-five deaths (thousands) 1990	2013	Infant mortality rate (deaths per 1,000 live births) 1990	2013	Number of infant deaths (thousands) 1990	2013	Neonatal mortality rate (deaths per 1,000 live births) 1990	2013	Number of neonatal deaths (thousands) 1990	2013
Sub-Saharan Africa	179	156	92	48	2.9	3,809	3,113	107	61	2,305	2,084	46	31	977	1,066
Eastern & Southern Africa	165	140	74	55	3.5	1,707	1,144	102	50	1,062	770	43	27	452	419
West & Central Africa	197	175	109	44	2.6	1,998	1,874	115	72	1,177	1,250	48	35	491	609
Middle East & North Africa	70	50	31	56	3.6	639	314	52	24	475	249	29	15	262	159
South Asia	129	94	57	56	3.6	4,689	1,991	92	45	3,327	1,567	52	30	1,890	1,070
East Asia & Pacific	58	41	19	67	4.8	2,534	594	44	16	1,958	492	25	10	1,110	316
Latin America & Caribbean	54	32	18	67	4.8	628	196	43	15	497	167	22	9	255	101
CEE/CIS	47	37	20	59	3.8	357	114	38	17	288	99	20	9	150	55
World	**90**	**76**	**46**	**49**	**3.0**	**12,670**	**6,285**	**63**	**34**	**8,880**	**4,641**	**33**	**20**	**4,672**	**2,763**

Region	Share of neonatal deaths in under-five deaths(%) 1990	2013	Deaths among children under 5 years of age due to: (%) 2013 — Neonatal Period (0–27 days): Pneumonia	Preterm	Intrapartum	Sepsis	Tetanus	Congenital	Diarrhoea	Other	Post-Neonatal (1–59 months): Pneumonia	Diarrhoea	Malaria	AIDS	Measles	Injuries	Meningitis	Other	Total	Coverage Indicators (%) latest available: Antenatal care (at least 4 visits)	Skilled attendant at birth	Postnatal care for newborns	Birth registration
Sub-Saharan Africa	26	34	2	10	10	6	1	2	0	2	14	10	14	3	1	5	3	16	100	48	50	–	36
Eastern & Southern Africa	26	37	2	10	11	6	1	3	0	2	14	10	8	5	1	6	2	17	100	43	42	–	28
West & Central Africa	25	33	2	10	9	5	1	2	0	2	13	10	19	2	1	4	3	15	100	52	57	–	42
Middle East & North Africa	41	50	2	17	12	7	1	9	0	3	13	7	1	0	0	6	1	21	100	60	79	–	89
South Asia	40	54	2	22	11	9	1	4	0	4	12	10	0	0	2	4	2	15	100	35	49	–	34
East Asia & Pacific	44	53	3	16	12	5	0	8	1	9	12	5	1	0	2	8	2	16	100	79*	92	–	–
Latin America & Caribbean	41	51	2	18	8	7	0	11	0	5	10	4	0	0	0	7	1	26	100	88	91	–	–
CEE/CIS	42	48	2	17	8	5	0	11	0	5	12	5	0	0	0	7	2	26	100	–	97	–	95
World	**37**	**44**	**2**	**15**	**11**	**7**	**1**	**4**	**0**	**4**	**13**	**9**	**7**	**2**	**2**	**5**	**2**	**16**	**100**	**53***	**68**	**–**	**59**

Estimates of child mortality,causes of under-five deaths, and coverage indicators by income

Income level	Under-five mortality rate (deaths per 1,000 live births) 1990	2000	2013	Decline (%) 1990–2013	Annual rate of reduction (%) 1990–2013	Number of under-five deaths (thousands) 1990	2013	Infant mortality rate (deaths per 1,000 live births) 1990	2013	Number of infant deaths (thousands) 1990	2013	Neonatal mortality rate (deaths per 1,000 live births) 1990	2013	Number of neonatal deaths (thousands) 1990	2013
Low income	167	135	76	54	3.4	3,209	2,000	105	53	2,015	1,396	47	28	914	748
Middle income	87	71	43	50	3.0	9,241	4,191	63	33	6,685	3,166	34	20	3,645	1,963
Lower middle income	119	93	59	50	3.0	6,475	3,456	83	44	4,497	2,579	44	27	2,409	1,596
Upper middle income	54	39	20	64	4.4	2,766	736	43	16	2,188	586	24	10	1,236	366
High income	14	10	6	56	3.6	219	94	12	5	180	79	8	4	113	52
World	**90**	**76**	**46**	**49**	**3.0**	**12,670**	**6,285**	**63**	**34**	**8,880**	**4,641**	**33**	**20**	**4,672**	**2,763**

Income level	Share of neonatal deaths in under-five deaths(%) 1990	2013	Deaths among children under 5 years of age due to: (%) 2013 — Neonatal Period (0–27 days): Pneumonia	Preterm	Intrapartum	Sepsis	Tetanus	Congenital	Diarrhoea	Other	Post-Neonatal (1–59 months): Pneumonia	Diarrhoea	Malaria	AIDS	Measles	Injuries	Meningitis	Other	Total	Coverage Indicators (%) latest available: Antenatal care (at least 4 visits)	Skilled attendant at birth	Postnatal care fornewborns	Birth registration
Low income	28	37	2	11	11	7	1	3	0	3	14	9	10	2	2	5	2	16	100	38	49	–	32
Middle income	39	47	2	17	11	7	1	5	0	4	12	9	6	1	1	5	2	16	100	58	73		53
Lower middle income	37	46	2	18	10	7	1	4	0	3	13	9	7	1	2	4	2	15	100	52	58	–	48
Upper middle income	45	50	3	15	11	5	0	8	0	8	11	6	3	2	0	7	2	19	100	83	98	–	–
High income	52	55	1	23	6	3	0	16	0	7	4	1	0	0	0	8	1	29	100	–	–	–	100
World	**37**	**44**	**2**	**15**	**11**	**7**	**1**	**4**	**0**	**4**	**13**	**9**	**7**	**2**	**2**	**5**	**2**	**16**	**100**	**53***	**68**	**–**	**59**

Numbers and percentages are rounded and therefore may not sum to totals. All calculations are based on unrounded numbers.

ACRONYMS

ANC	Antenatal care
ANC1	Antenatal care: at least one visit
ANC4	Antenatal care: four or more visits
BCG	Immunization against tuberculosis
CEE/CIS	Central and Eastern Europe/Commonwealth of Independent States
CHERG	Child Health Epidemiology Reference Group
C-section	Caesarean section
DHS	Demographic and Health Survey
ENAP	Every Newborn Action Plan
HSA	Health Surveillance Assistant
IPTp	Intermittent preventive treatment in pregnancy (of malaria)
LDCs	Least developed countries
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
NMR	Neonatal mortality rate
SP	Sulfadoxine/pyrimethamine (malaria treatment)
UNAIDS	Joint United Nations Progamme on HIV/AIDS
UNFPA	United Nations Population Fund
UN IGME	United Nations Inter-agency Group for Child Mortality Estimation
USAID	United States Agency for International Development
WHO	World Health Organization

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