UNICEF-WHO

LOW BIRTHWEIGHT ESTIMATES

Levels and trends 2000–2015

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World Health Organization

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Organizations, institutions and individuals involved in generating this publication:
WHO: Mercedes de Onis, Elaine Borghi, Diana Estevez and Gretchen A Stevens
UNICEF Division of Data, Research and Policy: Julia Krasevec, Xioayi An, Chika Hayashi and Mark Hereward
UNICEF Programme Division: Victor M. Aguayo, Roland Kupka and Nita Dalmiya
The London School of Hygiene & Tropical Medicine: Hannah Blencowe, Joy Lawn, Simon Cousens and Vicki Ponce Hardy
Johns Hopkins University: Robert Black
Editorial support: Writing and editing: Julia D'Aloisio (UNICEF); Design: Nona Reuter (UNICEF) and Alberto March (WHO).

The estimates presented in this brochure are not necessarily comparable with country reported values (see Annex 2).

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data.unicef.org/nutrition I who.int/nutrition

NOTE: These maps are stylized and not to scale and do not reflect a position by UNICEF or WHO on the legal status of any country or territory or the delimitation of any frontiers. The dotted line represents approximately the Line of Control in Jammu and Kashmir 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 Sudan and South Sudan has not yet been determined. The final status of Abyei area has not yet been determined.

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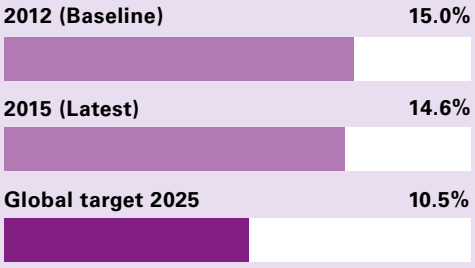
Progress towards the **target of a 30 per cent reduction** in low birthweight prevalence between 2012 and 2025



WHAT IS LOW BIRTHWEIGHT (LBW)?

A weight at birth of

less than 2,500g (<5.5 lbs)

regardless of gestational age

HOW DOES IT HAPPEN?

Increased risk of low birthweight

Premature birth (<37 weeks)

and/or

Growth faltering in the womb

- **Maternal malnutrition:** anaemia, underweight, overweight, etc., before and during pregnancy.
- **Maternal health problems:** high blood pressure, diabetes, infection, etc.
- **Maternal characteristics:** low/high maternal age, multiple parity, poor birth spacing, etc.
- **Other risk factors:** smoking, alcohol, medically unnecessary caesarean deliveries, etc.

WHY DOES IT MATTER?

Compared with babies born at or above the low birthweight cut-off (2,500 g), babies born with low birthweight have a higher risk of:

In childhood

STUNTING

LOWER IQ

DEATH

In adulthood

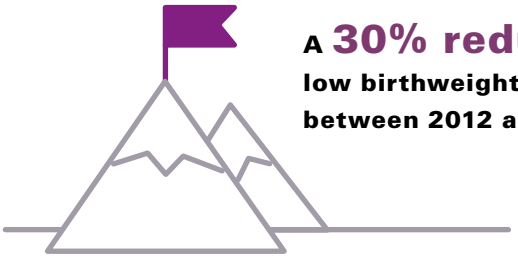
ADULT OVERWEIGHT AND OBESITY

Heart disease

Diabetes

NONCOMMUNICABLE DISEASES

WHAT IS OUR GOAL?



A 30% reduction in low birthweight prevalence between 2012 and 2025

A GOOD START IN LIFE BEGINS IN THE WOMB

To grow a healthy baby, mothers need good nutrition and rest, adequate antenatal care and a clean environment. These ingredients for a healthy pregnancy can help prevent, identify and treat the conditions that cause low birthweight and keep babies alive and thriving.

A newborn's weight at birth is an important marker of maternal and fetal health and nutrition. Low birthweight newborns have a higher risk of dying in the first 28 days of life. Those who survive are more likely to suffer from stunted growth[1] and lower IQ.[2] The consequences of low birthweight continue into adulthood, increasing the risk of adult-onset chronic conditions such as obesity and diabetes.[3]

Reducing low birthweight has long been recognized as a public health priority; and with the adoption of the Global Nutrition Targets in 2012, it is now a global commitment. During the 65th World Health Assembly (WHA), Member States endorsed the target of a 30 per cent reduction in low birthweight globally between 2012 and 2025. However, reporting on progress remains a challenge.

Despite ongoing efforts to strengthen national surveillance systems, the availability and quality of data on low birthweight vary widely among countries. To address this challenge, the UNICEF-WHO 2019 low birthweight estimates were derived using model approaches to improve comparability across countries and years, while filling data gaps *(Text Box 1 and Annex 2).*

Reaching the low birthweight target would save lives and fuel the achievement of other nutrition targets, such as those on reducing stunting, wasting and other forms of malnutrition. Yet today, the world is still far from achieving this objective.

The UNICEF-WHO low birthweight estimates indicate that one in seven livebirths – 20.5 million babies globally – suffered from low birthweight in 2015, almost half of them in Southern Asia. The new estimates reveal stagnated progress on reducing the prevalence of low birthweight between 2000 and 2015, with deceleration of the annual rate of progress in the 2010–2015 period compared with the 2000–2009 period. This is the first time such estimates have been made available globally, making it possible to track progress and support various initiatives including the WHA Nutrition Targets, the Every Newborn Action Plan and the Global Strategy for Women's Children's and Adolescents' Health. If trends continue, the world will not achieve the 2025 WHA low birthweight target – and this lack of progress will impede the achievement of the 2030 Sustainable Development Goals.

To accelerate progress, we need more and better quality data. Most data on low birthweight come from the more developed countries – yet these countries account for just under 5 per cent of all low birthweight births in 2015. Among the more developed regions, an average of 14.2 data points per country were included in the dataset; in contrast, there were on average only three data points per country in Africa and only 0.4 per country in Oceania. Furthermore, 54 countries – more than half from Africa and Oceania – had no data meeting inclusion criteria.

Low birthweight has multiple causes[4] and reducing it requires strategies to improve maternal nutritional status; guarantee adequate maternal services and care before, during and after birth; and strengthen social support.

Improving the quality and frequency of birthweight reporting is also critical to reducing the prevalence of low birthweight worldwide. Birthweight data were not available for nearly one third, or 39.7 million newborns in 2015 globally, with Africa accounting for over half of these. Strengthening national surveillance systems improves data collection and reporting on low birthweight, giving governments the power to set targets, develop effective programmes and monitor progress.

With robust data and sound programming to reach all mothers – particularly the most vulnerable – we can help more babies enter the world with a healthy weight and a brighter future.

METHODS USED TO GENERATE ANNUAL COUNTRY LOW BIRTHWEIGHT ESTIMATES

The UNICEF-WHO 2019 low birthweight database presents annual estimates from 2000–2015 for 147 countries that had at least one data point meeting inclusion criteria. Country input data were obtained through systematic searches of National Statistical Office and Ministry of Health websites, from websites of the household survey programmes of Multiple Indicator Cluster Surveys and Demographic and Health Surveys and from data gathered during an extensive country consultation.

All country input data were reviewed for coverage and quality. Administrative data were categorized as (i) high coverage, if representing ≥90 per cent of live births; (ii) medium coverage, if representing between 80 and 90 per cent of live births, or; (iii) not included, if covering <80 per cent of live births. Household survey data meeting inclusion criteria were adjusted for missing birthweights and heaping as described in Annex 2.

A total of 1,447 data points met inclusion criteria and were used to generate annual country estimates with methods applied varying by availability and type of input data (see box on right). The annual country estimates were then used to generate the regional and global low birthweight estimates from 2000 to 2015.

For further details see Annex 2.

Three types of annual country low birthweight estimates:

b-spline: Data for countries with ≥8 higher coverage administrative data points with ≥1 prior to 2005 and ≥1 more recent than 2010 were smoothed with b-spline regression to generate annual low birthweight estimates that followed country-reported estimates very closely.

Hierarchical regression: Data for countries not meeting requirements for b-spline but with ≥1 data point meeting inclusion criteria were fitted into a model using covariates to generate annual low birthweight estimates. These estimates may vary substantially from those reported by countries.

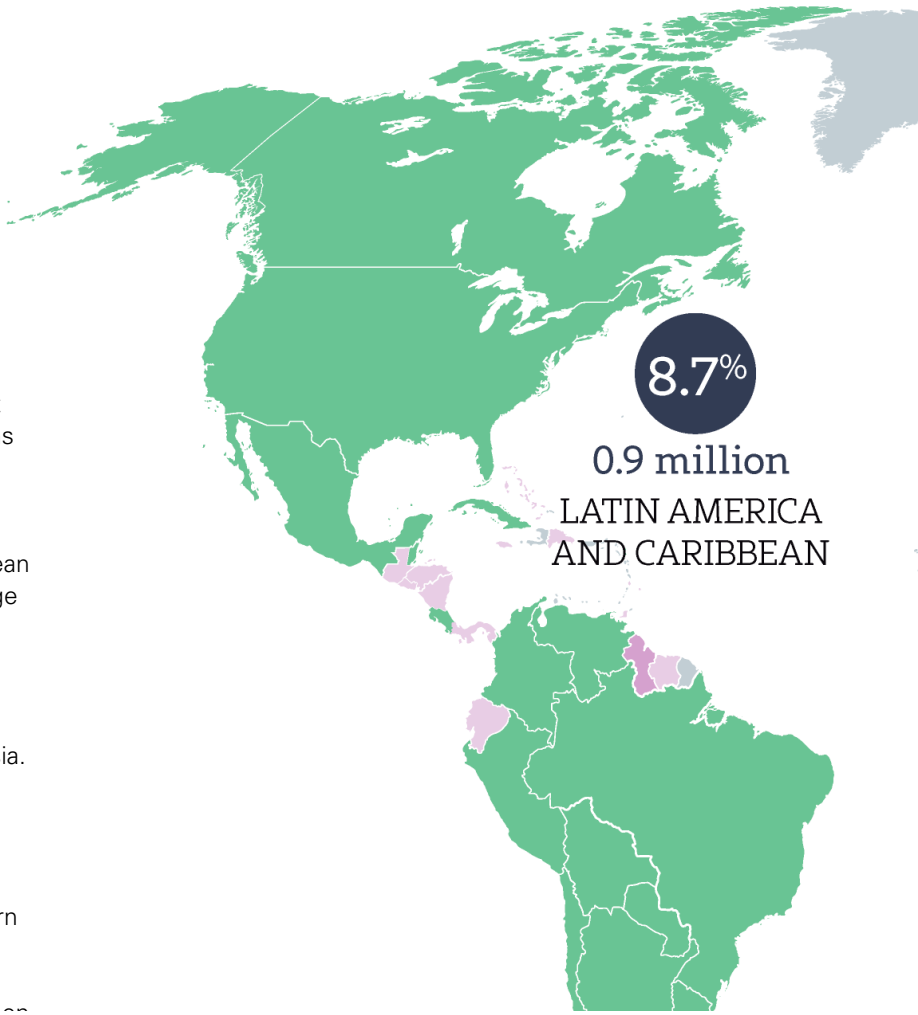
No estimate: Countries with no available data or with data that did not meet inclusion criteria.

NEARLY 15 PER CENT OF BABIES WORLDWIDE ARE BORN WITH LOW BIRTHWEIGHT – MORE THAN HALF OF THEM IN ASIA

One in every seven newborns was born with low birthweight in 2015 *(Figure 1)*. These babies were more likely to die during their first month of life or face lifelong consequences such as stunted growth[1] and lower IQ.[2]

The prevalence of low birthweight varied widely across regions – from 7.2 per cent in More Developed Regions to 17.3 per cent in Asia. There were also variations across sub-regions. In Southern Asia, the prevalence of low birthweight was 26.4 per cent in 2015 – more than five times higher than the 5.1 per cent prevalence in Eastern Asia *(Figure 2)*. In fact, these two sub-regions of Asia had respectively the highest and lowest low birthweight prevalances of all sub-regions in the world. In other regions, there was greater homogeneity between sub-regions with the highest and lowest low birthweight prevalence. In Latin America and the Caribbean for example, there was a mere 1.3 percentage point difference, while in Africa, there was a 3 percentage point difference.

Of the 20.5 million low birthweight babies born in 2015, more than half were born in Asia. Indeed, Southern Asia accounted for nearly half of all low birthweight newborns in the world *(Figure 3)*. Africa was home to about one quarter of all low birthweight newborns, with the majority born in Eastern and Western Africa.



Progress on reducing low birthweight has been