Levels and trends in child malnutrition

UNICEF / WHO / World Bank Group Joint Child Malnutrition Estimates

Key findings of the 2021 edition

UNICEF Regions

These new estimates supersede former analyses and results published by UNICEF, WHO and the World Bank Group



38.9 million

An estimated 5.7 per cent or 38.9 million children under 5 around the world were affected by overweight in 2020*



45.4 million

In 2020,* wasting continued to threaten the lives of an estimated 6.7 per cent or 45.4 million children under 5 globally



149.2 million

Stunting affected an estimated 22.0 per cent or 149.2 million children under 5 globally in 2020*

* The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. The JME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 pandemic.







INTRODUCTION

TOWARDS A FUTURE WITHOUT MALNUTRITION FOR EVERY CHILD

Good nutrition sets children on the path to survive and thrive. Well-nourished children grow, develop, learn, play, participate and contribute - while malnutrition robs children of their full potential, with consequences for children, nations and the world.

Stunting is the devastating result of poor nutrition in-utero and early childhood. Children suffering from stunting may never attain their full possible height and their brains may never develop to their full cognitive potential. These children begin their lives at a marked disadvantage: they face learning difficulties in school, earn less as adults, and face barriers to participation in their communities. Globally, 149.2 million children under 5 suffered from stunting in 2020.* These numbers may increase substantially due to constraints in accessing nutritious diets and essential nutrition services during the COVID-19 pandemic, with the full impact on stunting possibly taking years to manifest.

Wasting in children is the life-threatening result of poor nutrient intake and/or disease. Children suffering from wasting have weakened immunity, are susceptible to long-term developmental delays and face an increased risk of death, particularly when wasting is severe. These children require urgent treatment and care to survive. In 2020,* 45.4 million children under 5 were affected by wasting, of which 13.6 million were severely wasted.

The impact of COVID-19 has likely exacerbated these figures, and could mean that 15 per cent or 1.15 times more children were affected by wasting in 2020 than estimated¹ due to deteriorations in household wealth and disruptions to the availability and affordability of nutritious

food and essential nutrition services. Childhood overweight occurs when children's caloric intake from food and beverages exceeds their energy requirements. It is shaped by industry marketing and greater access to processed foods, along with inadequate levels of physical activity, which can increase children's risk of obesity and diet-related noncommunicable diseases later in life. There are now 38.9 million* children under 5 with overweight globally, an increase of nearly 6 million since 2000. Childhood overweight may also be negatively impacted by COVID-19, especially where fresh, nutritious food has been replaced by processed, unhealthy food, and where movement restrictions have constrained opportunities for physical activity for extended periods of

The Joint Malnutrition Estimates (JME) released in April 2021 reveal insufficient progress to reach the World Health Assembly (WHA) targets set for 2025 and the Sustainable Development Goals (SDGs) set for 2030 (see page 25).2 The latest analysis indicates that only one quarter of all countries are 'on track' to halve the number of children affected by stunting by 2030, with an assessment of progress to date not being possible for another quarter of countries. Even fewer countries are expected to achieve the 2030 target of 3 per cent prevalence for overweight, with just 1 in 6 countries considered 'on track'. Further, an assessment of progress towards the wasting target is not possible for nearly half of countries.

More intensive efforts will be required if the world is to achieve global targets of reducing the number of children with stunting to 104 million by 2025 and to 87 million by 2030. Meanwhile, achieving the overweight goal would require a reversal of the current trajectory.

Although malnutrition can manifest in multiple ways, the path to prevention is virtually identical: adequate maternal nutrition before and during pregnancy and while breastfeeding; optimal breastfeeding in the first two years of life; nutritious, diverse and safe foods in early childhood; and a healthy environment, including access to basic health, water, hygiene and sanitation services and opportunities for safe physical activity. Many of these vital pathways to good nutrition are under threat - including due to the COVID-19 pandemic - and have the potential to undermine progress towards ending malnutrition in all its forms. As the world responds to and recovers from the pandemic, urgent action is critical to protect maternal and child nutrition especially in the most affected regions - and secure a future where the right to nutrition is a reality for every child.

NEW - JME country estimates

This key findings report for the 2021 edition of the JME presents country level data for the first time. This is because a new countrylevel model has been developed to generate the country, regional and global estimates for stunting and overweight (see page 26). Additional work is ongoing to update methods for wasting and severe wasting; as such, the estimates presented for these two conditions are based on methods applied for previous editions of the JME.

^{*} The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. The JME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 pandemic. However, one of the covariates used in the country stunting and overweight models takes the impact of COVID-19 partially into account (see page 3).

COVID-19 and the Joint Child Malnutrition Estimates



The Joint Malnutrition Estimates for the year 2020 do not fully account for the impact of the COVID-19 pandemic. The collection of household

survey data on child height and weight used to report on the JME indicators of stunting, wasting, severe wasting and overweight among children under 5 years of age - were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. This means that the estimates are based almost entirely on data collected before 2020 and which do not take into account the impact of the COVID-19 pandemic. One of the covariates used in the country models for stunting and overweight takes the impact of COVID-19 partially into account, but is not expected to capture the full extent of the pandemic's influence on malnutrition in 2020.

The pandemic is expected to exacerbate all forms of malnutrition due to deteriorations in household wealth: constraints in the availability and affordability of nutritious food; disruptions in essential nutrition services; and limited opportunities for physical activity.

The impact of the pandemic on stunting will likely unfold gradually, and may persist for years after COVID-19 is eradicated and economies recover. Given that stunting is the result of chronic or recurrent malnutrition, it will be influenced by how long these pandemic-related shocks to the economy, food systems and health systems persist. Maternal malnutrition experienced during the pandemic can also affect stunting by increasing the risk of low birthweight, a key predictor of impaired linear growth.³ Therefore, increased stunting prevalence may be apparent among children born during the first year of the pandemic before it is noticed in the entire under-five population that is used to monitor this indicator.

Wasting and severe wasting, characterized by a loss of muscle and fat mass, can develop rapidly in the face of poor nutrient intake and/or disease. These conditions are expected to be most impacted by COVID-19 in the short-term and the prevalence-based estimates presented in this report for 2020 may in fact be around 15 per cent or 1.15 times higher than what is reported.1 Without representative data on wasting from countries during the pandemic, only modelled predictions are possible. Because losses in muscle and

fat mass can be reversed rapidly once the pandemic subsides and large-scale data collection on child weight and height resumes, there may be no evidence remaining of how wasting prevalence was affected over the course of the pandemic. Among children who survive episodes of wasting during the pandemic, linear growth is likely to be affected; this means that some of the pandemic's enduring impact on stunting may be attributable to prolonged and recurrent episodes of wasting.

The pandemic may also lead to increases in childhood overweight, especially in settings where food choices and physical activity have been negatively influenced by COVID-19 mitigation strategies. The impact on overweight may persist through the lifetime of those affected, with poor dietary and physical activity habits (shaped by restrictions during COVID-19) that continue through adolescence and adulthood. While data are limited, deteriorations in children's diet quality during the pandemic have been observed. In one country, decreases in physical activity during the pandemic were reported for 28 per cent of children aged 3 to 5 years, while increases in sweet snack food consumption were reported for 19 per cent of children.4

Forms of malnutrition** highlighted in this key findings report



Stunting refers to a child who is too short for his or her age. Children affected by stunting can suffer severe irreversible physical and cognitive damage that accompanies stunted growth. The devastating consequences of stunting can last a lifetime and even affect the next generation.



Wasting refers to a child who is too thin for his or her height. Wasting is the result of recent rapid weight loss or the failure to gain weight. A child who is moderately or severely wasted has an increased risk of death, but treatment is possible.



Overweight refers to a child who is too heavy for his or her height. This form of malnutrition results when energy intakes from food and beverages exceed children's energy requirements. Overweight increases the risk of diet-related noncommunicable diseases later in life.



Stunting overweight

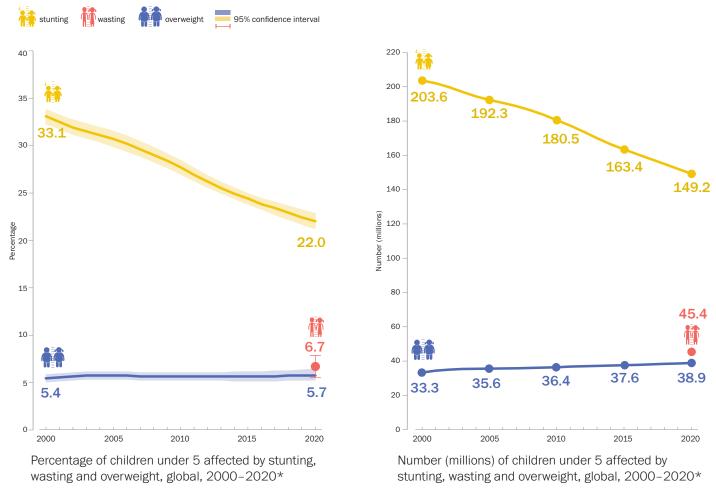


Stunting and wasting

** Some children suffer from more than one form of malnutrition - such as stunting and overweight or stunting and wasting. There are currently no joint global or regional estimates for these combined conditions.

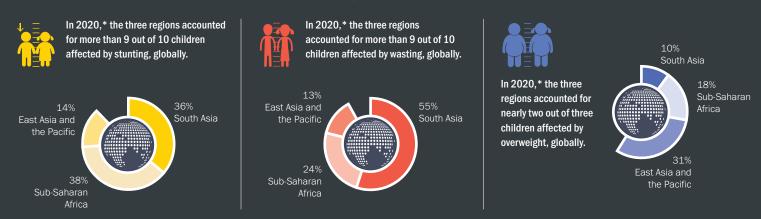
GLOBAL OVERVIEW

Stunting has declined steadily since 2000 - but faster progress is needed to reach the 2030 target. Wasting persists at alarming rates and overweight will require a reversal in trajectory if the 2030 target is to be achieved.



Source: UNICEF, WHO, World Bank Group Joint Malnutrition Estimates, 2021 edition. See section about regional and global estimates on page 27 for an explanation of why only one time point is presented for wasting on the graphs above.

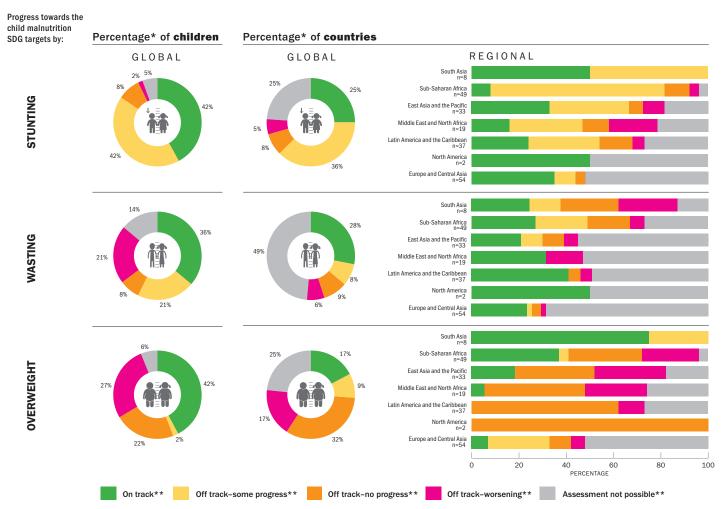
Most children with malnutrition live in just three regions



^{*}The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. The JME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 pandemic. However, one of the covariates used in the country stunting and overweight models takes the impact of COVID-19 partially into account (see page 3).

PROGRESS TOWARDS THE SDGs

About half of the world's children live in countries that are off-track to achieve one or more of the three 2030 SDG targets on child malnutrition



Source: UNICEF, WHO, World Bank Group Joint Malnutrition Estimates, 2021 edition. Note: *Percentages may not add up to 100 per cent due to rounding. **See notes on progress assessment categories on pages 16-17.

The graphics above show progress towards the SDG 2.2 targets on stunting, wasting and overweight. The graphics in the left-hand column show progress by percentage of the global under-five population and the graphics in the two right-hand columns show progress by percentage of countries (globally and regionally).

For the graphics by percentage of the under-five population (left column), each country was weighted by the under-five population, meaning that more populous countries contributed more to the percentages in each progress category than less populous ones. In contrast, for the graphs in the two columns on the right side, each country contributes equally towards the percentages, regardless of its population size.

Availability of data to measure progress varies between the assessment by percentage of the population and the assessment by percentage of countries; it also varies by indicator and region. Almost all children live in countries where progress assessment is possible for all three indicators. Meanwhile, progress by country can only be assessed for about three quarters of countries for the stunting and overweight targets, and for about half of countries for the wasting target.

When considering progress by under-five population, nearly 85 per cent of children live in countries showing at least some progress towards the stunting reduction target, with only 10 per cent living in countries that show no progress or a worsening situation. The situation is more concerning for overweight: half of children live in countries with no progress or a worsening situation. For wasting, nearly one third of children live in countries with no progress or a worsening situation.

When considering progress by individual countries (at the global level), progress on stunting and overweight can be assessed for three quarters of all countries, while progress on wasting is only possible for about half of countries (see notes on JME methodology on pages 26-27). Overall, the greatest progress is being made towards the stunting target, with nearly two thirds of countries seeing at least some progress. In contrast, for overweight, about half of all countries have experienced no progress or are worsening.

At the regional level, Europe and Central Asia has the highest proportion of countries for which progress cannot be assessed across the three indicators.

Conversely, South Asia and sub-Saharan Africa have the highest proportion of countries for which progress can be assessed for all three indicators. Europe and Central Asia is contributing most to the global percentage of countries that are 'on track' to meet the stunting target, accounting for 19 out of 51 countries on track globally (or 37 per cent of all countries that are 'on track' globally are in Europe and Central Asia): followed by East Asia and the Pacific with 11 countries on track; and Latin America and the Caribbean, with 9 countries on track. Together these three regions account for more than three quarters of all countries, globally, that are 'on track' for the stunting target. While all regions have at least some countries on track to meet the stunting and wasting targets, in both Latin America and the Caribbean and North America, all countries for which progress for overweight could be assessed show no progress or a worsening situation.

Gaps in the available data in some regions make it challenging to accurately assess progress towards global targets. Regular data collection (every three to five years) is therefore critical to monitor and analyse country, regional and global progress on child malnutrition going forward.



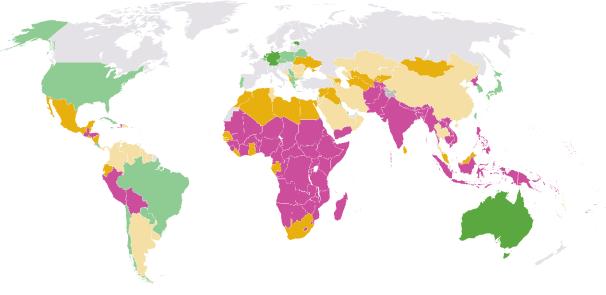
The number of countries with very high stunting prevalence has declined by half since 2000 - from 67 to 33 countries

Percentage of children under 5 affected by stunting, by country, 2020^{1} prevalence for each country with a modelled estimate presented for 2020.1

Percentage of children under 5 affected by stunting, by country, 2000



Distribution of stunting prevalence for each country with a modelled estimate presented for 2000.













not presented

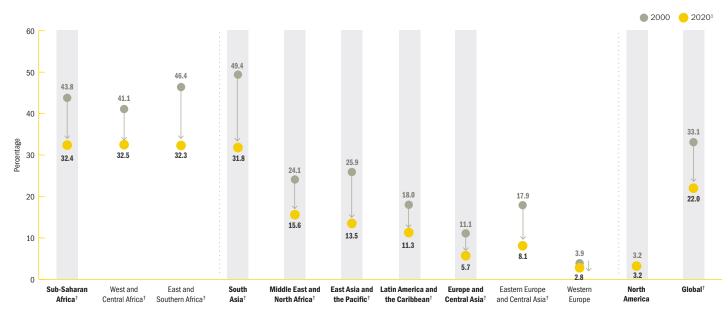
Source: UNICEF, WHO, World Bank Group, Joint Child Malnutrition Estimates, 2021 edition, Note: 1. The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. The JME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 pandemic. However, one of the covariates used in the country stunting and overweight models takes the impact of COVID-19 partially into account (see page 3). These maps are stylized and not to scale; they do not reflect a position by UNICEF, WHO or World Bank Group on the legal status of any country or territory or the delimitation of any frontiers.





Progress to reduce stunting has not been equal across regions and sub-regions

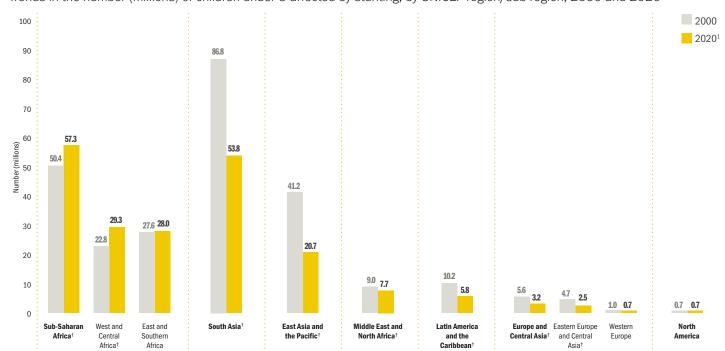
Trends in the percentage of children under 5 affected by stunting, by UNICEF region/sub-region, 2000 and 2020¹



Source: UNICEF, WHO, World Bank Group Joint Malnutrition Estimates, 2021 edition. Note: 1.The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. The JME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 pandemic. However, one of the covariates used in the country stunting model takes the impact of COVID-19 partially into account (see page 3). † Represents regions/sub-regions where the change has been statistically significant. See page 14 for the 95% confidence intervals for graphed estimates.

The number of children with stunting is declining in all regions except **Sub-Saharan Africa**

Trends in the number (millions) of children under 5 affected by stunting, by UNICEF region/sub-region, 2000 and 2020¹

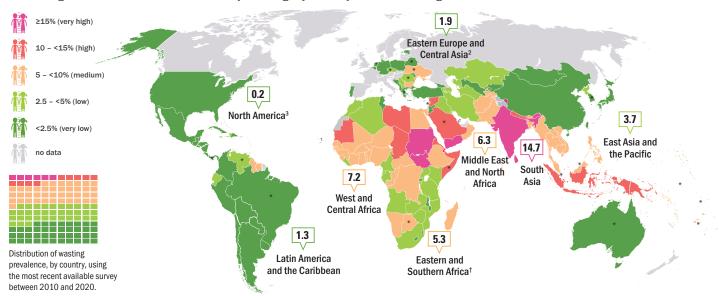


Source: UNICEF, WHO, World Bank Group Joint Malnutrition Estimates, 2021 edition, Note: 1. The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. The JME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 partially into account (see page 3). † Represents regions/sub-regions where the change has been statistically significant. See page 15 for the 95% confidence intervals for graphed estimates



South Asia has the highest wasting prevalence of any region in the world

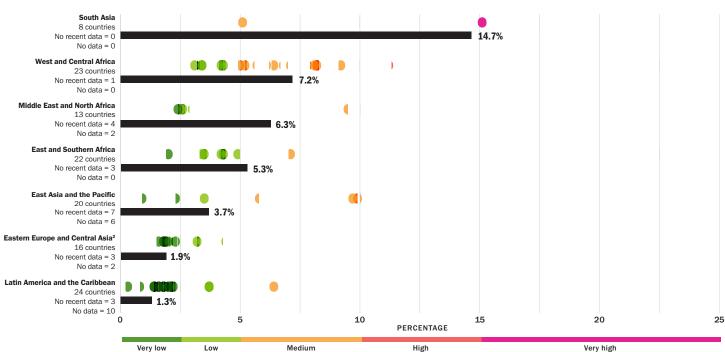
Percentage of children under 5 affected by wasting, by country and UNICEF region, 2020¹



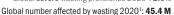
Source: UNICEF, WHO, World Bank Group, Joint Child Malnutrition Estimates, 2021 edition. Note: 1. Country data are the most recent available survey estimates between 2010 and 2020; exceptions where older data are shown (2000-2009) are denoted with an asterisk (*) and where only data prior to 2000 are available the † footnote is used, denoting no recent data. The regional estimates do not account for the impact of COVID-19 given that the collection of household survey data on child height and weight were limited in 2020 due to physical distancing measures with only four national surveys with at least some field work in 2020 included in the JME database; the JME estimates are therefore based almost entirely on data collected before 2020 (see page 3). The regional estimate for Eastern Europe and Central Asia excludes Russian Federation due to lack of data for that country. There is no estimate available for Western Europe due to insufficient population coverage. 3. The North America regional estimate is based on data from only the United States. See section about regional and global estimates on page 27 for an explanation of why trend data are not available for wasting. These maps are stylized and not to scale; they do not reflect a position by UNICEF, WHO or World Bank Group on the legal status of any country or territory or the delimitation of any frontiers.

Regional averages can mask wide variations in country prevalence

Percentage of children under 5 affected by wasting, by country (dots) and UNICEF region (bars), 20201



Source: UNICEF, WHO, World Bank Group Joint Malnutrition Estimates, 2021 edition. Notes: 1. Each marker refers to the most recent country estimate between 2010 and 2020; "no recent data" refers to the number of countries for which the most recent estimate is before 2010 and "no data" refers to the number of countries without an estimate. The regional estimates do not account for the impact of COVID-19 given that the collection of household survey data on child height and weight were limited in 2020 due to physical distancing measures with only four national surveys with at least some field work in 2020 included in the JME database; the JME estimates are therefore based almost entirely on data collected before 2020 (see page 3). 2. The regional estimate for Eastern Europe and Central Asia excludes Russian Federation due to lack of data for that country. There is no estimate available for Western Europe due to insufficient population coverage. North America is not shown as it only includes two countries, of which only one has data. See section about regional and global estimates on page 27 for an explanation of why trend data are not available for wasting.

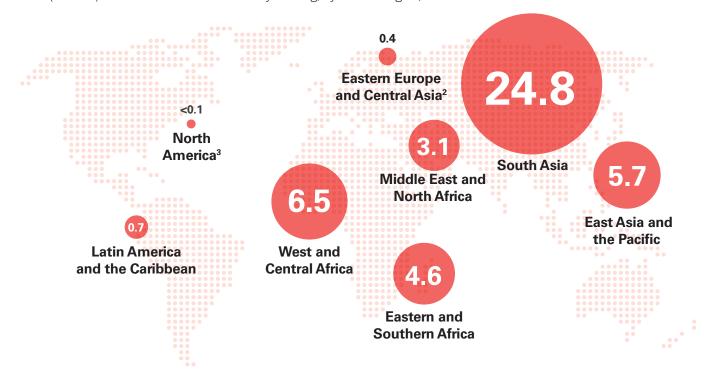


Global number affected by severe wasting 20201: 13.6 M



More than half of all children affected by wasting live in South Asia

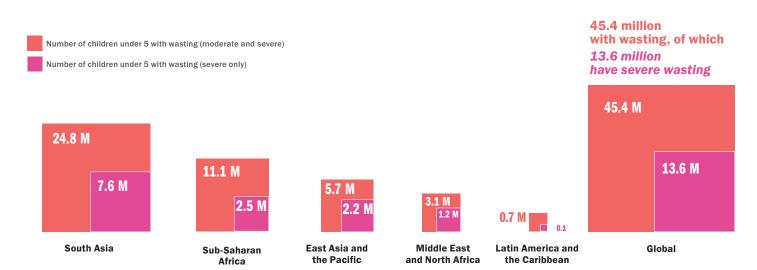
Number (millions) of children under 5 affected by wasting, by UNICEF region, 20201



Source: UNICEF, WHO, World Bank Group Joint Malnutrition Estimates, 2021 edition. Note: 1. The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. The JME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 pandemic (see page 3), 2. The regional estimate for Eastern Europe and Central Asia excludes Russian Federation due to lack of data for that country. There is no estimate available for Western Europe due to insufficient population coverage. 3. The North America regional estimate is based on data from only the United States. Aggregates may not add up due to rounding and/or lack of estimates for some regions. See section about regional and global estimates on page 27 for an explanation of why trend data are not available for wasting.

South Asia is home to more than half of all children suffering from severe wasting

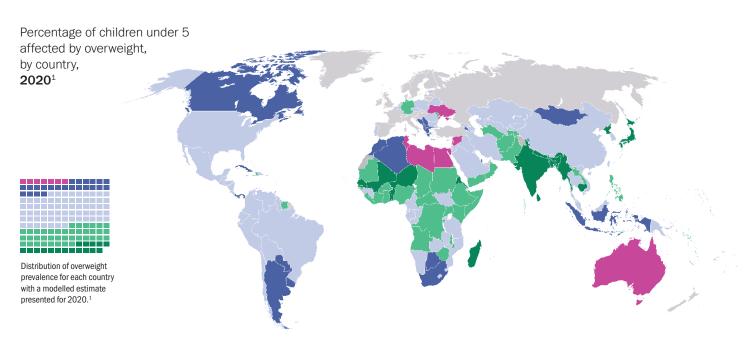
Number of children under 5 affected by wasting and severe wasting, by UNICEF region, 20201

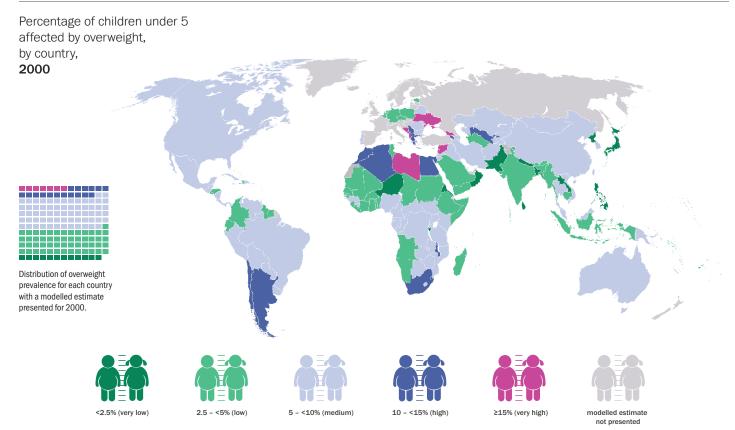


Source: UNICEF, WHO, World Bank Group Joint Malnutrition Estimates, 2021 edition. Note: 1. The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19: only four national surveys with at least some field work in 2020 are included in the IME database. The IME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 pandemic. (see page 3). North America is not shown because wasting affects < 0.1 million children. Aggregates may not add up due to rounding and/or lack of estimates for some regions. See section about regional and global estimates on page 27 for an explanation of why trend data are not available for wasting or severe wasting.



The number of countries with low and very low levels of overweight decreased from 64 countries in 2000 to 56 countries by 20201





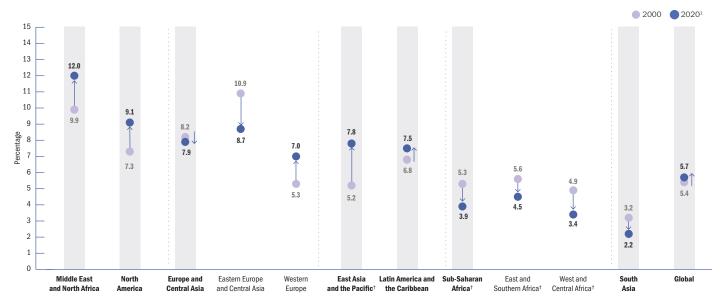
Source: UNICEF, WHO, World Bank Group, Joint Child Mainutrition Estimates, 2021 edition. Note: 1. The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. The JME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 pandemic. However, one of the covariates used in the country overweight model takes the impact of COVID-19 partially into account (see page 3). These maps are stylized and not to scale and do not reflect a position by UNICEF, WHO or World Bank Group on the legal status of any country or territory or the delimitation of any frontiers.



Global number affected 2000: 33.3 M

About one in ten children in the Middle East and North Africa is affected by overweight - and little has changed in the last 20 years

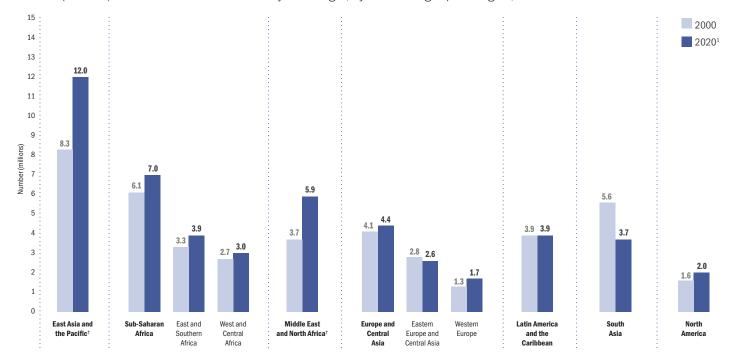
Trends in the percentage of children under 5 affected by overweight, by UNICEF region/sub-region and global, 2000-20201



Source: UNICEF, WHO, World Bank Group Joint Malnutrition Estimates, 2021 edition. Note: 1. The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. The JME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 pandemic. However, one of the covariates used in the country overweight model takes the impact of COVID-19 partially into account (see page 3). †Represents regions/sub-regions where the change has been statistically significant. See page 14 for the 95% confidence intervals for graphed estimates.

East Asia and the Pacific and Middle East and North Africa are the only regions with a significant increase in the number of children with overweight since 2000

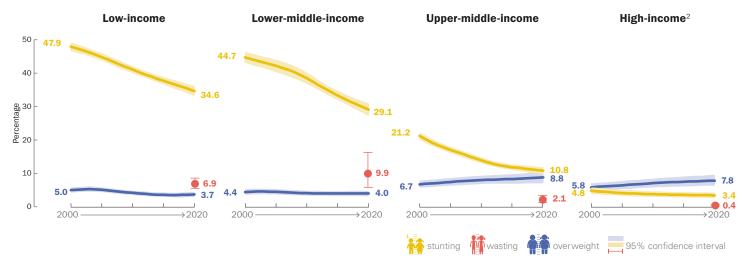
Number (millions) of children under 5 affected by overweight, by UNICEF region/sub-region, 2000 and 20201



Source: UNICEF, WHO, World Bank Group Joint Malnutrition Estimates, 2021 edition. Note: 1. The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. The JME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 pandemic. However, one of the covariates used in the country overweight model takes the impact of COVID-19 partially into account (see page 3). †Represents regions/sub-regions where the change has been statistically significant. See page 15 for the 95% confidence intervals for graphed estimates.

Stunting has declined by half in upper-middle income countries - but overweight is rising steadily, moving further away from the global target

Percentage of children under 5 affected by stunting, wasting and overweight, by country income classification, 2000-20201



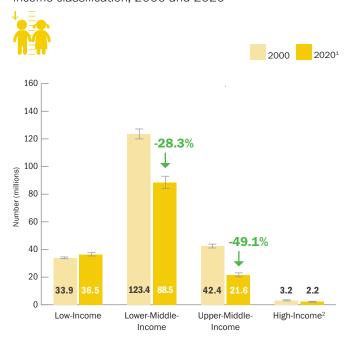
Source: UNICEF, WHO, World Bank Group Joint Malnutrition Estimates, 2021 edition. Note: 1. The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. The JME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 pandemic. However, one of the covariates used in the country stunting and overweight models takes the impact of COVID-19 partially into account (see page 3). 2. High-income countries: consecutive low (<50 per cent) population coverage for country data (e.g., from household surveys) in all time periods after 2010 for all indicators; interpret with caution

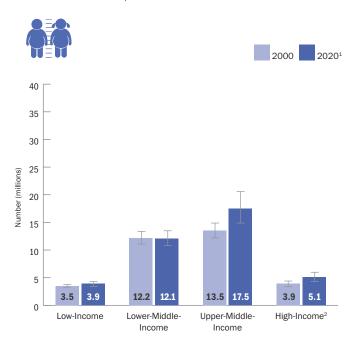
Upper-middle-income countries have halved the number of children affected by stunting in the last 20 years

Number of children under 5 affected by stunting, by country income classification, 2000 and 2020¹

The number of children with overweight has remained unchanged for two decades

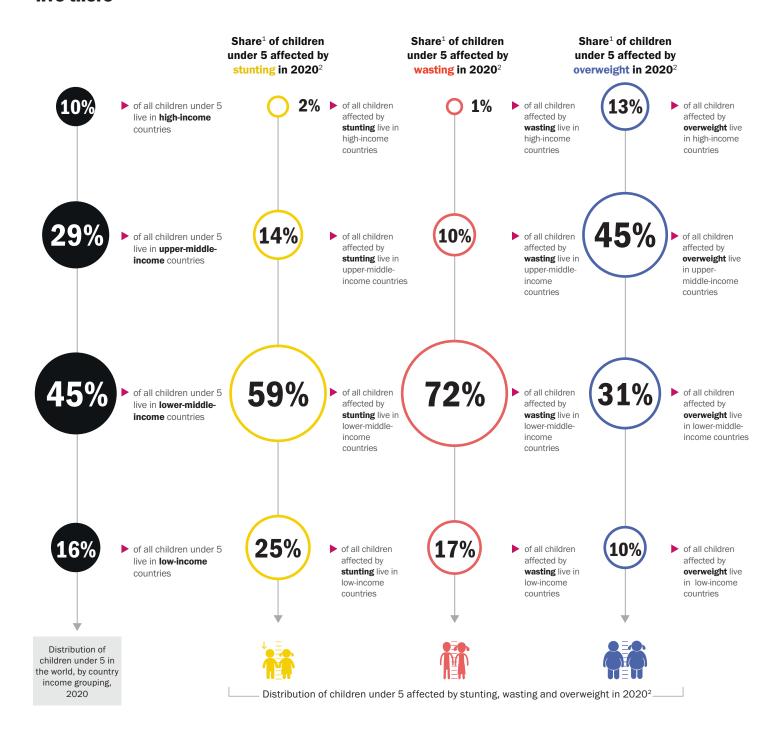
Number of children under 5 affected by overweight, by country income classification, 2000 and 20201





Source: UNICEF, WHO, World Bank Group Joint Malnutrition Estimates, 2021 edition. Note: 1. The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. The JME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 pandemic. However, one of the covariates used in the country stunting and overweight models takes the impact of COVID-19 partially into account (see page 3). 2. High-income countries: consecutive low (<50 per cent) population coverage for stunting and overweight in 2020; interpret with caution. Based on FY2021 World Bank income classification. The values for "percentage change since 2000" are based on calculations using unrounded estimates and therefore might not match values calculated using the rounded estimates presented in this brochure.

Less than half of all children under 5 live in lower-middle income countries, but nearly two thirds of all children with stunting and three quarters of all children with wasting live there



Source: UNICEF, WHO, World Bank Group Joint Malnutrition Estimates, 2021 edition. Note: 1. Share is relative to the total number affected across the four country-income groups; this varies from the global totals reported elsewhere in this brochure because the populations are based on the FY2021 World Bank income classification. The differences are as follows: Stunting official global estimate of 149.2 million; sum of four country-income groups = 14.8 million. Wasting official global estimate of 38.9 million; sum of 200 million; sum of country-income groups = 31.7 million. The percentages for overweight do not add up to 100 per cent due to rounding. 2. The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. The JME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 pandemic. However, one of the covariates used in the country stunting and overweight models takes the impact of COVID-19 partially into account (see page 3).

PREVALENCE TABLE*

	St	tunt	ting		Ove	erv	veight		Wasting and	seve	re wasting	
	2000		2020 ¹		2000		2020 ¹		2020 ¹		2020 ¹	
	% stunted (moderate and severe)	ootnote	% stunted (moderate and severe)	ootnote	% overweight (moderate and severe)	ootnote	% overweight (moderate and severe)	ootnote	% wasted (moderate and severe)	ootnote	% wasted (severe)	footnote
Global	33.1 [32.4-33.7]	Ψ.	22.0 [21.3-22.7]	Ψ.	5.4 [5.1-5.7]	-	5.7 [5.3-6.3]	4	6.7 [5.5-7.9]	Ē	2.0 [1.6-2.	
United Nations Regions	33.1 [32.4-33.1]		22.0 [21.5-22.1]		0.4[0.1-0.1]		3.1 [0.0-0.0]		0.1 [0.5-1.5]		2.0 [1.0-2.	ار
Africa	41.5 [40.7-42.3]		30.7 [29.9-31.6]		6.2 [5.8-6.6]		5.3 [4.8-5.9]		6.0 [5.0-7.1]		1.5 [1.2-1.	91
Eastern Africa	49.1 [48.1-50.1]		32.6 [31.3-33.9]		5.3 [4.9-5.8]		4.0 [3.6-4.6]		5.2 [3.6-7.5]		1.0 [0.7-1.	
Middle Africa	44.9 [43.3-46.6]		36.8 [34.1-39.5]		5.9 [4.9-7.0]		4.8 [3.9-5.9]		6.2 [4.6-8.2]		1.9 [1.4-2.	
Northern Africa	28.3 [26.4-30.3]		21.4 [19.0-24.1]		10.9 [9.7-12.3]		13.0 [10.2-16.5]		6.6 [3.2-13.1]		2.7 [1.3-5.	
Southern Africa	29.1 [27.1-31.3]		23.3 [21.0-25.7]		10.6 [8.5-13.1]		12.1 [9.4-15.5]		3.2 [2.1-5.1]		0.7 [0.6-1.	
Western Africa	39.9 [38.1-41.8]		30.9 [29.7-32.1]		4.4 [3.6-5.3]		2.7 [2.4-3.1]		6.9 [5.9-8.1]		1.4 [1.2-1.	
Asia ²	37.0 [36.1-38.0]		21.8 [20.6-23.1]		4.5 [4.1-4.9]		5.2 [4.5-6.0]		8.9 [6.7-11.2]	2	2.9 [2.1-3.	
Central Asia	29.0 [27.8-30.2]		10.0 [9.1-11.0]		9.6 [8.1-11.2]		5.6 [4.5-7.1]		2.3 [1.5-3.6]		0.6 [0.2-1.	
Eastern Asia	19.5 [18.4-20.7]		4.9 [4.2-5.7]		6.0 [5.1-7.0]		7.9 [5.7-10.7]		1.7 [1.6-1.7]	2	0.4 [0.3-0.	
Southern Asia	48.3 [46.5-50.2]		30.7 [28.3-33.1]		3.3 [2.8-4.0]		2.5 [2.0-3.2]		14.1 [10.2-19.3]		4.4 [3.2-6.	-
South-eastern Asia	38.0 [37.1-39.0]		27.4 [25.7-29.2]		3.7 [3.3-4.1]		7.5 [6.1-9.2]		8.2 [5.9-11.2]		3.4 [1.5-7.	
Western Asia	24.3 [23.5-25.0]		13.9 [12.6-15.3]		7.7 [6.9-8.5]		8.3 [7.0-9.8]		3.5 [1.4-8.4]		1.1 [0.5-2.	
Europe	6.6 [5.2-8.4]		4.5 [3.3-6.1]	3	8.1 [6.2-10.6]		8.3 [5.8-11.8]	3	-		111 [010 21	- 1
Eastern Europe	10.1 [7.0-14.3]			3	11.9 [7.6-18.3]		9.9 [5.3-17.8]					_
Northern Europe	4.3 [2.3-7.7]		2.9 [1.6-5.3]	3	6.2 [3.5-10.7]		8.3 [4.2-15.9]		_			
Southern Europe	6.8 [4.7-9.7]		4.0 [2.6-6.0]		7.2 [5.2-10.0]				_			
Western Europe	2.9 [1.7-5.1]		2.3 [1.4-3.7]		4.5 [2.8-7.1]		6.0 [3.5-9.9]		_			
Latin American and Caribbean	18.0 [17.4-18.5]		11.3 [10.3-12.4]		6.8 [6.1-7.6]		7.5 [6.2-9.0]		1.3 [0.8-1.8]		0.3 [0.2-0.	4 1
Caribbean	15.7 [14.8-16.6]		11.8 [10.5-13.1]		5.8 [4.7-7.1]		6.6 [5.3-8.1]		2.8 [2.0-3.9]		0.8 [0.6-0.	
Central America	25.5 [24.3-26.7]		16.6 [15.3-18.0]		6.7 [5.5-8.2]		6.3 [5.2-7.7]		0.9 [0.7-1.0]		0.2 [0.1-0.	
South America	14.7 [14.1-15.4]		8.6 [7.2-10.2]	3	7.0 [6.1-8.0]		8.2 [6.3-10.6]	3		3	0.2 [0.1-0.	
Oceania excl. Australia & New Zealand			41.4 [33.4-49.8]		5.2 [3.9-7.0]		8.0 [5.1-12.4]		9.0 [5.4-14.6]		3.5 [2.6-4.	
Australia and New Zealand	1.9 [1.2-3.0]		2.3 [1.4-3.7]	3	7.7 [5.7-10.3]		16.9 [12.4-22.5]		3.0 [3.4-14.0]		3.3 [2.0-4.	ارد
Northern America	3.2 [2.8-3.7]		3.2 [2.7-3.8]		7.3 [6.0-8.9]		9.1 [6.9-11.8]		0.2	4	<0	.1
SDG Regions	3.2 [2.6-3.1]		3.2 [2.1-3.6]		7.5 [0.0-6.9]		9.1 [0.9-11.6]		0.2		<u> </u>	.1
Australia and New Zealand	1.9 [1.2-3.0]		2.3 [1.4-3.7]		7.7 [5.7-10.3]		16.9 [12.4-22.5]		_			-
Central Asia and Southern Asia	47.7 [45.9-49.5]		29.8 [27.5-32.1]		3.5 [3.0-4.1]		2.7 [2.1-3.3]		13.6 [9.3-17.9]		4.2 [2.9-5.	61
Eastern Asia and South-eastern Asia	26.1 [25.3-26.8]		13.4 [12.6-14.2]		5.2 [4.6-5.9]		7.7 [6.2-9.5]		4.1 [3.1-5.1]		1.5 [0.5-2.	-
Latin America and the Caribbean	18.0 [17.4-18.5]		11.3 [10.3-12.4]		6.8 [6.1-7.6]		7.5 [6.2-9.0]		1.3 [0.8-1.8]		0.3 [0.2-0.	
Northern America and Europe	5.4 [4.4-6.5]		4.0 [3.2-5.1]		7.8 [6.4-9.5]		8.6 [6.7-11.0]					-
Oceania excl. Australia & New Zealand	35.6 [30.3-41.2]		41.4 [33.4-49.8]		5.2 [3.9-7.0]		8.0 [5.1-12.4]		9.0 [5.4-14.6]		3.5 [2.6-4.	81
Sub-Saharan Africa	44.0 [43.1-44.8]		32.3 [31.5-33.2]		5.3 [4.9-5.8]		4.0 [3.7-4.3]		5.9 [5.0-6.9]		1.3 [1.1-1.	
Western Asia and Northern Africa	26.2 [25.2-27.2]		17.8 [16.4-19.3]		9.2 [8.5-10.0]		10.8 [9.2-12.6]		5.1 [2.3-8.0]		1.9 [0.9-3.	
UNICEF	2012 [2012 2112]		1110 [1011 1010]		012 [010 1010]		1010 [012 1210]		012 [2.10 0.10]		1.0 [0.0 0.1	9]
East Asia and Pacific	25.9 [25.1-26.7]		13.5 [12.7-14.3]		5.2 [4.6-5.9]		7.8 [6.4-9.6]		3.7 [2.3-5.1]		1.4 [0.4-2.	5]
Europe and Central Asia	11.1 [9.9-12.4]		5.7 [4.8-6.8]	3	8.2 [6.6-10.0]			3				-
Eastern Europe and Central Asia	17.9 [15.9-20.1]		8.1 [6.5-10.0]		10.9 [8.3-14.2]		8.7 [5.8-12.7]		1.9 [1.3-2.7]	2	0.6 [0.4-0.	91
Western Europe	3.9 [2.9-5.3]	3	2.8 [2.1-3.7]	3	5.3 [4.1-6.9]		7.0 [5.1-9.6]	3	-			-
Latin America and Caribbean	18.0 [17.4-18.5]		11.3 [10.3-12.4]		6.8 [6.1-7.6]		7.5 [6.2-9.0]		1.3 [0.8-1.8]		0.3 [0.2-0.	41
Middle East and North Africa	24.1 [23.5-24.7]		15.6 [14.2-17.2]		9.9 [9.1-10.8]		12.0 [9.9-14.5]		6.3 [3.7-10.6]		2.5 [1.3-4.	
North America	3.2 [2.8-3.7]		3.2 [2.7-3.8]		7.3 [6.0-8.9]		9.1 [6.9-11.8]		0.2	4	-	.1
South Asia	49.4 [47.5-51.3]		31.8 [29.3-34.4]		3.2 [2.7-3.9]		2.2 [1.8-2.8]		14.7 [11.1-19.2]		4.5 [3.3-6.3	2]
Sub-Saharan Africa	43.8 [43.0-44.7]		32.4 [31.5-33.2]		5.3 [4.9-5.7]		3.9 [3.6-4.3]		6.2 [5.3-7.2]		1.4 [1.2-1.	
East and Southern Africa	46.4 [45.4-47.5]		32.3 [31.1-33.5]		5.6 [5.2-6.0]		4.5 [4.1-5.0]		5.3 [3.7-7.4]		1.1 [0.8-1.	
West and Central Africa	41.1 [39.6-42.5]		32.5 [31.2-33.7]		4.9 [4.3-5.7]		3.4 [3.0-3.8]		7.2 [6.5-7.9]		1.7 [1.5-1.	
WHO	,								. ,		·	1
African Region	43.6 [42.8-44.5]		31.7 [30.9-32.6]		5.5 [5.1-6.0]		4.2 [3.9-4.6]		5.8 [4.9-6.8]		1.4 [1.1-1.	6]
Region of the Americas	13.9 [13.5-14.4]		8.9 [8.2-9.7]		7.0 [6.3-7.7]		8.0 [6.8-9.3]		0.7 [0.3-1.5]		0.1 [0.0-0.	
South-East Asia Region	48.4 [46.6-50.2]		30.1 [27.7-32.7]		3.2 [2.6-3.8]		3.3 [2.7-4.1]		14.5 [11.0-18.9]		4.5 [3.3-6.	2]
Eastern Mediterranean Region	33.9 [32.6-35.3]		26.2 [24.5-27.9]		7.2 [6.6-7.9]		7.7 [6.4-9.1]		7.4 [5.7-9.5]		3.0 [2.2-4.	
Europe Region	11.0 [9.9-12.3]		5.7 [4.7-6.8]	3	8.1 [6.6-10.0]				[]			-
Western Pacific Region	22.2 [21.3-23.1]		9.3 [8.6-10.0]		5.5 [4.8-6.3]		7.5 [5.8-9.7]		2.1 [1.4-3.1]		0.5 [0.3-0.	81
World Bank Income	22.2 [21.0 20.1]		5.5 [5.5 15.6]		0.0 [1.0 0.0]		[0.0 0.1]		2.1 [1. 1 0.1]		0.0 [0.0 0.	-1
Low income	47.9 [47.0-48.8]		34.6 [33.5-35.8]		5.0 [4.6-5.4]		3.7 [3.3-4.1]		6.9 [5.6-8.6]		1.6 [1.2-2.	1]
Middle Income	34.8 [34.0-35.6]		21.8 [20.8-22.7]		5.4 [5.1-5.8]		5.9 [5.3-6.6]		6.8 [3.7-9.9]		2.0 [0.9-3.	
Lower-middle income	44.7 [43.5-46.0]		29.1 [27.6-30.6]		4.4 [4.0-4.9]		4.0 [3.5-4.4]		9.9 [5.8-16.2]		2.8 [1.6-5.	
Upper middle income	21.2 [20.6-21.9]		10.8 [10.1-11.5]		6.7 [6.1-7.4]		8.8 [7.4-10.3]		2.1 [1.3-3.4]		0.6 [0.3-1.3	
High income	4.8 [4.2-5.4]		3.4 [3.0-3.9]	3	5.8 [5.1-6.6]		7.8 [6.7-9.2]			3	0.0 [0.0-0.	
			[]		[2.2 2.0]				[]		, 01	

Notes: 1. The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. The JME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 pandemic. However, one of the covariates used in the country stunting and overweight models takes the impact of COVID-19 partially into account (see page 3). 2. For wasting and severe wasting: Asia excluding Japan, Eastern Asia excluding Japan, and Eastern Europe and Central Asia excluding Russia. 3. Consecutive low (<50 per cent) population coverage; interpret with caution. Population coverage is based on an assessment of available data within distinct five-year periods and was calculated as the sum of country five-year average populations for which surveys are available in the dataset, divided by the the total of country five-year average population for all countries in the region.

Estimates are flagged as having consecutive low population coverage when two five-year periods in a row are below 50 per cent. The population coverage for the most recent five-year period for the United Nations regions is available on page 28. 4. For wasting and severe wasting, the Northern America estimates were derived applying mixed-effect models with sub-regions as fixed effects⁵ data were available only for the United States, preventing the estimation of confidence intervals. Model selection is based on best fit.

NUMBERS (MILLIONS) AFFECTED TABLE*

	St	tun	ting	Ove	erv	/eight		Wasting and	se	vere wasting	
	2000		2020 ¹	2000		2020 ¹		2020 ¹	i	2020 ¹	
	number (millions)	te	number (millions) ೨	number (millions)	te	number (millions)	te	number (millions)	te	number (millions)	te
	stunted	footnote	number (millions) at unted (moderate and severe)	number (millions) overweight (moderate and severe)	outo	overweight	otto	wasted	otto	wasted	footnote
	(moderate and severe)	Q.	(moderate and severe) 💆	(moderate and severe)	ę		ō	(moderate and severe)	Q.	(severe)	fo
Global	203.6 [199.8-207.4]		149.2 [144.4-154.2]	33.3 [31.5-35.1]		38.9 [35.6-42.4]		45.4 [37.0-53.7]		13.6 [10.6-16.7]	
United Nations											
Africa	54.4 [53.4-55.4]		61.4 [59.8-63.1]	8.2 [7.6-8.7]		10.6 [9.6-11.7]		12.1 [10.0-14.1]		3.0 [2.4-3.7]	
Eastern Africa	22.6 [22.1-23.0]		22.1 [21.3-23.1]	2.5 [2.3-2.7]		2.7 [2.4-3.1]		3.5 [2.4-5.1]		0.7 [0.5-1.1]	
Middle Africa	7.9 [7.6-8.2]		11.3 [10.5-12.2]	1.0 [0.9-1.2]		1.5 [1.2-1.8]		1.9 [1.4-2.5]		0.6 [0.4-0.8]	
Northern Africa	5.9 [5.5-6.3]		6.2 [5.5-7.0]	2.3 [2.0-2.6]		3.8 [3.0-4.8]		1.9 [0.9-3.8]		0.8 [0.4-1.6]	
Southern Africa	1.7 [1.6-1.8]		1.6 [1.4-1.7]	0.6 [0.5-0.8]		0.8 [0.6-1.1]		0.2 [0.1-0.3]		0.1 [0.0-0.1]	
Western Africa	16.4 [15.6-17.1]		20.2 [19.4-21.0]	1.8 [1.5-2.2]		1.8 [1.5-2.0]		4.5 [3.8-5.3]		0.9 [0.8-1.1]	
Asia ²	135.9 [132.3-139.5]		79.0 [74.7-83.6]	16.5 [15.1-18.0]		18.7 [16.2-21.6]		31.9 [23.9-39.9]	2	10.3 [7.3-13.2]	
Central Asia	1.7 [1.6-1.8]		0.8 [0.7-0.9]	0.6 [0.5-0.7]		0.5 [0.4-0.6]		0.2 [0.1-0.3]		0.0 [0.0-0.1]	
Eastern Asia	19.9 [18.8-21.0]		4.6 [4.0-5.4]	6.1 [5.2-7.2]		7.4 [5.4-10.1]		1.5 [1.4-1.6]	2	0.3 [0.3-0.4]	2
Southern Asia	87.6 [84.3-91.0]		54.3 [50.1-58.6]	6.0 [5.1-7.2]		4.5 [3.5-5.6]		25.0 [18.0-34.1]		7.8 [5.6-10.8]	
South-eastern Asia	20.8 [20.2-21.3]		15.3 [14.4-16.3]	2.0 [1.8-2.3]		4.2 [3.4-5.1]		4.6 [3.3-6.3]		1.9 [0.9-4.2]	
Western Asia	5.6 [5.5-5.8]		3.7 [3.4-4.1]	1.8 [1.6-2.0]		2.2 [1.9-2.7]		1.0 [0.4-2.3]		0.3 [0.1-0.7]	
Europe	2.4 [1.9-3.1]		1.8 [1.3-2.4] ³			3.2 [2.3-4.6]		-		-	
Eastern Europe	1.4 [1.0-2.0]		1.1 [0.7-1.7] ³			1.6 [0.9-2.9]		-		-	
Northern Europe	0.2 [0.1-0.4]		0.2 [0.1-0.3] ³			0.5 [0.3-1.0]	3	-		-	
Southern Europe	0.5 [0.3-0.7]		0.3 [0.2-0.4] ³	0.5 [0.4-0.7]	3	0.5 [0.3-0.8]	3	-		-	
Western Europe	0.3 [0.2-0.5]	3	0.2 [0.1-0.4] ³	[]		0.6 [0.4-1.0]	3	-		-	
Latin American and Caribbean	10.2 [9.9-10.5]		5.8 [5.3-6.4]	3.9 [3.5-4.3]		3.9 [3.2-4.7]		0.7 [0.4-0.9]		0.1 [0.1-0.2]	
Caribbean	0.6 [0.6-0.6]		0.4 [0.4-0.4]	0.2 [0.2-0.3]		0.2 [0.2-0.3]		0.1 [0.1-0.1]		<0.1	
Central America	4.2 [4.0-4.4]		2.7 [2.5-2.9]	1.1 [0.9-1.4]		1.0 [0.8-1.2]		0.1 [0.1-0.2]		<0.1	
South America	5.3 [5.1-5.6]		2.8 [2.3-3.3] ³	2.5 [2.2-2.9]		2.6 [2.0-3.4]	3	0.4 [0.3-0.8]	3	0.1 [0.0-0.2]	3
Oceania excl. Australia & New Zealand	0.4 [0.4-0.5]		0.6 [0.5-0.7]	0.1 [0.0-0.1]		0.1 [0.1-0.2]		0.1 [0.1-0.2]		0.1 [0.0-0.1]	
Australia and New Zealand	0.0 [0.0-0.0]		0.0 [0.0-0.1] ³	0.1 [0.1-0.2]		0.3 [0.2-0.4]		-		-	
Northern America	0.7 [0.6-0.8]		0.7 [0.6-0.8]	1.6 [1.3-1.9]		2.0 [1.5-2.6]		<0.1	4	<0.1	4
SDG Regions											
Australia and New Zealand	0.0 [0.0-0.0]		0.0 [0.0-0.1]	0.1 [0.1-0.2]		0.3 [0.2-0.4]		-		-	
Central Asia and Southern Asia	89.3 [86.0-92.7]		55.1 [50.9-59.5]	6.6 [5.6-7.8]		4.9 [4.0-6.1]		25.2 [17.3-33.1]		7.9 [5.3-10.4]	
Eastern Asia and South-eastern Asia	40.8 [39.6-42.0]		20.1 [18.9-21.4]	8.1 [7.2-9.2]		11.6 [9.3-14.3]		6.0 [4.5-7.4]		2.2 [0.7-3.7]	
Latin America and the Caribbean	10.2 [9.9-10.5]		5.8 [5.3-6.4]	3.9 [3.5-4.3]		3.9 [3.2-4.7]		0.7 [0.4-0.9]		0.1 [0.1-0.2]	
Northern America and Europe	3.1 [2.6-3.8]		2.4 [1.9-3.1]	4.5 [3.7-5.5]		5.2 [4.1-6.7]		-		-	
Oceania excl. Australia & New Zealand	0.4 [0.4-0.5]		0.6 [0.5-0.7]	0.1 [0.0-0.1]		0.1 [0.1-0.2]		0.1 [0.1-0.2]		0.1 [0.0-0.1]	
Sub-Saharan Africa	48.5 [47.5-49.4]		55.2 [53.7-56.7]	5.9 [5.5-6.4]		6.8 [6.3-7.4]		10.1 [8.6-11.7]		2.2 [1.9-2.6]	
Western Asia and Northern Africa	11.5 [11.1-12.0]		10.0 [9.2-10.8]	4.1 [3.7-4.4]		6.0 [5.1-7.1]		2.9 [1.3-4.5]		1.1 [0.5-1.7]	
UNICEF	44 0 (40 0 40 5)		00.7/40.5.00.01	0.017.4.0.41		40.010.044.01		F 7 (2 F 7 0)		0.010.5.0.01	
East Asia and Pacific	41.2 [40.0-42.5]	2	20.7 [19.5-22.0]	8.3 [7.4-9.4]		12.0 [9.8-14.8]	2	5.7 [3.5-7.9]		2.2 [0.5-3.8]	
Europe and Central Asia	5.6 [5.0-6.3]	3	3.2 [2.6-3.8] 3	[4.4 [3.3-5.7]	3	0.410.0.0.01	2	0.410.4.0.01	2
Eastern Europe and Central Asia	4.7 [4.1-5.2]	2	2.5 [2.0-3.1]	2.8 [2.1-3.7]		2.6 [1.8-3.9]	2	0.4 [0.3-0.6]	2	0.1 [0.1-0.2]	2
Western Europe	1.0 [0.7-1.3]		0.7 [0.5-0.9] 3	1.3 [1.0-1.7]		1.7 [1.3-2.4]		0.710.4.0.01		0.410.4.0.01	
Latin America and Caribbean	10.2 [9.9-10.5]		5.8 [5.3-6.4]	3.9 [3.5-4.3]		3.9 [3.2-4.7]		0.7 [0.4-0.9]		0.1 [0.1-0.2]	
Middle East and North Africa	9.0 [8.8-9.2]		7.7 [7.0-8.5]	3.7 [3.4-4.0]		5.9 [4.9-7.2]		3.1 [1.8-5.2]	1	1.2 [0.6-2.4]	
North America	0.7 [0.6-0.8]		0.7 [0.6-0.8]	1.6 [1.3-1.9]		2.0 [1.5-2.6]		<0.1	-	<0.1	
South Asia	86.8 [83.4-90.1]		53.8 [49.6-58.2]	5.6 [4.7-6.8]		3.7 [3.0-4.7]		24.8 [18.8-32.4]		7.6 [5.6-10.4]	
Sub-Saharan Africa	50.4 [49.4-51.4]		57.3 [55.8-58.9]	6.1 [5.6-6.5]		7.0 [6.4-7.6]		11.1 [9.3-12.8]		2.5 [2.1-3.0]	
East and Southern Africa	27.6 [27.0-28.3]		28.0 [27.0-29.1]	3.3 [3.1-3.6]		3.9 [3.5-4.4]		4.6 [3.2-6.5]		1.0 [0.7-1.5]	
West and Central Africa	22.8 [22.0-23.6]		29.3 [28.2-30.4]	2.7 [2.4-3.1]		3.0 [2.7-3.4]		6.5 [5.9-7.1]		1.6 [1.4-1.7]	
WHO African Region	19 6 [17 6 10 5]		54.9 [53.4-56.3]	6 2 [5 7 6 7]		72167901		0.0 [9.4.11.7]		2.3 [1.9-2.8]	
Region of the Americas	48.6 [47.6-49.5]			6.2 [5.7-6.7]		7.3 [6.7-8.0] 5.8 [5.0-6.8]		9.9 [8.4-11.7]		0.1 [0.0-0.3]	
	10.8 [10.5-11.2]		6.5 [6.0-7.1]	5.4 [4.9-6.0]				0.5 [0.2-1.1]			
South-East Asia Region Eastern Mediterranean Region	88.5 [85.2-91.8]		51.1 [46.9-55.4]	5.8 [4.8-6.9]		5.6 [4.6-6.9]		24.6 [18.7-31.9]		7.7 [5.6-10.4]	
	22.3 [21.4-23.2]	3	22.4 [21.0-23.9]	4.8 [4.3-5.2]		6.6 [5.5-7.8]	3	6.3 [4.9-8.1]		2.6 [1.9-3.6]	
Europe Region	5.6 [5.0-6.3]	Ü	3.2 [2.7-3.8] ³		J	4.4 [3.4-5.8]	Ŭ	2 4 (4 6 2 6)		0.610.4.1.01	
Western Pacific Region	27.5 [26.4-28.7]		11.0 [10.2-11.9]	6.8 [5.9-7.8]		8.8 [6.8-11.4]		2.4 [1.6-3.6]		0.6 [0.4-1.0]	
World Bank Income	33 0 [33 3 34 6]		36 5 [35 2 27 7]	3 5 13 3 3 01		3 012 5 4 21		72150011		17112221	
Low income Middle Income	33.9 [33.3-34.6]		36.5 [35.3-37.7]	3.5 [3.3-3.8]		3.9 [3.5-4.3]		7.3 [5.9-9.1]		1.7 [1.3-2.2]	
Middle Income Lower-middle income	165.5 [161.8-169.2]		109.8 [105.1-114.5]	25.7 [24.1-27.5]		29.7 [26.7-33.1]		34.3 [18.8-49.8]		9.8 [4.7-15.0]	
	123.4 [119.9-126.9]		88.5 [84.0-93.0]	12.2 [11.1-13.4]		12.1 [10.8-13.5]		30.1 [17.8-49.3]		8.6 [4.8-15.5]	
Upper middle income High income	42.4 [41.1-43.8]		21.6 [20.2-23.0]	13.5 [12.2-14.9]		17.5 [14.9-20.6]	3	4.3 [2.7-6.8]	3	1.2 [0.6-2.7] <0.1	
riigii ilicoille	3.2 [2.8-3.6]		2.2 [2.0-2.5] ³	3.9 [3.4-4.4]		5.1 [4.3-6.0]		0.2 [0.1-0.5]		\0.1	

^{*}Complete data series for stunting and overweight (2000, 2005, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 and 2020) and the latest year for wasting (2020) estimates of prevalence and numbers affected can be found at the websites below for global as well as for the following groupings: (i) United Nations regions and sub-regions; (ii) UNICEF regions; (iii) WHO regions; (iv) World Bank country income classifications; (v) World Bank regions; (vi) SDG regions; and (vii) the Food and Agriculture Organization's (FAO) low-income food deficient countries classification. These websites also contain a file with the country compositions for each grouping: UNICEF WHO WHO World Bank Group <data.worldbank.org/child-malnutrition>

PREVALENCE TABLE

			М	ODELLE	D	ESTII	WATES	•						
		Stun	ting (PERCE	NT)			Overw	eight (PER	CENT)			Was	ting¹ (PERCE	NT)
Country Name	2012 value	2020² value	2020 threshold ³	Progress assessment ⁴	footnote	2012 value	2020 ² value	2020 threshold ³	Progress assessment ⁴	footnote	Year	Value	Threshold ³	Progress assessment ⁴
Afghanistan	44.7	35.1	Very high			5.3	3.9	Low			2018	5.1	Medium	
Albania	17.6	9.6	Low			21.7	14.6	High			2017	1.6	Very low	
Algeria	12.6	9.3	Low			13.5	12.9	High			2019	2.7	Low	
Andorra	-	-	No data			-	-	No data			-	-	No data	
Angola	32.4	37.7	Very high			2.9	3.5	Low			2015	4.9	Low	
Anguilla	-	-	No data			-	-	No data			-	-	No data	
Antigua and Barbuda	-	-	No data			-	-	No data			-	-	No data	
Argentina	7.8	7.8	Low			12.4	12.9	High			2019	1.6	Very low	
Armenia	14.0	9.1	Low			14.8	10.8	High			2016	4.4	Low	
Australia	2.1	2.1	Very low			14.2	18.5	Very high			2007	<0.1	Very low	
Austria	-	-	No data			-	-	No data			-	-	No data	
Azerbaijan	17.2	16.3	Medium			11.1	9.4	Medium			2013	3.2	Low	
Bahamas	-	-	No data			-	-	No data			-	-	No data	
Bahrain	6.3	5.1	Low		5	5.6	6.4	Medium		5	1995	-	No recent data	
Bangladesh	38.1	30.2	Very high			1.7	2.1	Very low			2019	9.8	Medium	
Barbados	7.6	6.6	Low			10.8	11.4	High			2012	6.8	Medium	
Belarus	4.0	3.9	Low			9.2	6.8	Medium			2005	2.2	Very low	
Belgium	2.7	2.3	Very low			4.5	5.1	Medium			2014	0.4	Very low	
Belize	17.5	13.3	Medium			9.0	8.0	Medium			2015	1.8	Very low	
Benin	33.8	31.3	Very high			1.6	2.2	Very low			2018	5.0	Medium	
Bhutan	30.2	22.4	High			6.1	5.2	Medium			2010	5.9	Medium	
Bolivia (Plurinational State of)	20.3	12.7	Medium			9.0	8.8	Medium			2016	2.0	Very low	
Bosnia and Herzegovina	9.3	9.1	Low			18.9	12.8	High			2012	2.3	Very low	
Botswana	24.4	22.8	High			10.6	11.0	High			2007	7.3	Medium	
Brazil	6.3	6.1	Low			6.9	7.3	Medium			2007	1.8	Very low	
British Virgin Islands	-	-	No data			-	-	No data			-	-	No data	
Brunei Darussalam	17.5	12.7	Medium			8.4	9.3	Medium			2009	2.9	Low	
Bulgaria	7.5	6.4	Low			8.2	5.7	Medium			2014	6.3	Medium	
Burkina Faso	33.9	25.5	High			1.7	2.6	Low			2019	8.1	Medium	
Burundi	56.8	57.6	Very high			2.3	3.1	Low			2019	4.8	Low	
Cabo Verde	12.2	9.7	Low		5	-	-	No data		5	1994	-	No recent data	

Notes

- 1. The most recent estimate between 2000 and 2020 in the JME country dataset is reported for wasting. See page 29 for link to full country time series.
- 2. The collection of household survey data on child height and weight were limited in 2020 due to the physical distancing measures resulting from COVID-19; only four national surveys with at least some field work in 2020 are included in the JME database. The JME estimates are therefore based almost entirely on data collected before 2020 and do not take into account the impact of the COVID-19 pandemic. However, one of the covariates used in the country stunting and overweight models takes the impact of COVID-19 partially into account (see page 3).
- 3. See page 24 for prevalence thresholds. For stunting and overweight, 'no data' is used for countries without any input data (e.g., household survey data) for use in the country-level models or where the modelled estimates remain pending final review. For wasting, 'no recent data' is used when the most recent data point is from before 2000 and 'no data' is used for countries without any data.
- 4. Notes on progress assessment: Progress was assessed against SDG target 2.2 for 2030⁶ using an adapted version of rules from the WHO-UNICEF Technical Expert Advisory Group on Nutrition Monitoring. For stunting and overweight, the JME country modelled estimates from 2012 to 2020 were used to calculate the annual average rate of reduction (AARR) for countries with at least one input data point (e.g., from household surveys) more recent than 1999. For wasting, all available country data (e.g., from household surveys) between 2005 and 2020 in the 2021 JME country dataset were used to calculate the AARR for countries with at least two input data points, of which at least one was more recent than 2012. See Table 1 (page 17) for progress assessment rules by indicator.
- 5. The most recent country data point (e.g., from household surveys) used to generate the modelled stunting and overweight estimates is from before the year 2000; interpret with caution.
- 6. Modelled estimate pending final review.

NUMBERS AFFECTED (THOUSANDS) TABLE

				MODELLE	D I	ESTIM A	TES					
		Stunting	(NUMBEF	RS)			Overweig	ht (NUMBE	ERS)		Wasting ²	L (NUMBERS)
Country Name	2012 value	Share of 2012 global	2020² value	Share of 2020 ² global	footnote	2012 value	Share of 2012 global	2020² value	Share of 2020 ² global	footnote	Year	Value
Afghanistan	2417.6	1.4	1991.1	1.3		286.6	0.8	221.2	0.6		2018	287.4
Albania	29.9	<0.1	16.0	<0.1		36.8	0.1	24.3	0.1		2017	2.8
Algeria	541.6	0.3	468.9	0.3		580.3	1.6	650.4	1.7		2019	135.8
Andorra	-	-	-	-		-	-	-	-		-	-
Angola	1554.8	0.9	2184.7	1.5		139.2	0.4	202.8	0.5		2015	255.5
Anguilla	-	-	-	-		-	-	-	-		-	-
Antigua and Barbuda	-	-	-	-		-	-	-	-		-	-
Argentina	283.6	0.2	291.5	0.2		450.9	1.2	482.0	1.2		2019	59.9
Armenia	29.3	<0.1	18.7	<0.1		30.9	0.1	22.1	0.1		2016	9.5
Australia	32.2	<0.1	35.1	<0.1		217.8	0.6	308.9	0.8		2007	<0.1
Austria	-	-	-	-		-	-	-	-		-	-
Azerbaijan	132.6	0.1	134.5	0.1		85.6	0.2	77.6	0.2		2013	25.6
Bahamas	-	-	-	-		-	-	-	-		-	-
Bahrain	6.2	<0.1	5.5	<0.1	5	5.5	<0.1	6.9	<0.1	5	1995	-
Bangladesh	5690.2	3.3	4327.1	2.9		253.9	0.7	300.9	0.8		2019	1417.4
Barbados	1.3	<0.1	1.0	<0.1		1.8	<0.1	1.7	<0.1		2012	1.1
Belarus	21.9	<0.1	21.4	<0.1		50.4	0.1	37.3	0.1		2005	9.8
Belgium	17.5	<0.1	14.6	<0.1		29.2	0.1	32.3	0.1		2014	2.5
Belize	6.6	<0.1	5.2	<0.1		3.4	<0.1	3.2	<0.1		2015	0.7
Benin	553.3	0.3	597.3	0.4		26.2	0.1	42.0	0.1		2018	91.4
Bhutan	19.6	<0.1	14.3	<0.1		4.0	<0.1	3.3	<0.1		2010	3.9
Bolivia (Plurinational State of)	241.8	0.1	150.6	0.1		107.2	0.3	104.3	0.3		2016	23.5
Bosnia and Herzegovina	17.0	<0.1	12.1	<0.1		34.6	0.1	17.1	<0.1		2012	4.3
Botswana	63.3	<0.1	62.0	<0.1		27.5	0.1	29.9	0.1		2007	17.9
Brazil	927.5	0.5	883.0	0.6		1015.8	2.7	1056.7	2.7		2007	285.9
British Virgin Islands	-	-	-	-		-	-	-	-		-	-
Brunei Darussalam	5.6	<0.1	4.0	<0.1		2.7	<0.1	2.9	<0.1		2009	0.9
Bulgaria	27.9	<0.1	20.0	<0.1		30.5	0.1	17.8	<0.1		2014	21.9
Burkina Faso	1012.4	0.6	885.5	0.6		50.8	0.1	90.3	0.2		2019	274.6
Burundi	967.5	0.6	1183.0	0.8		39.2	0.1	63.7	0.2		2019	95.9
Cabo Verde	6.4	<0.1	5.0	<0.1	5	-	-	-	-	5	1994	-

Table 1: Rules for progress assessment against child malnutrition indicators for SDG target 2.2

Progress assessment label	(2030 target: reduce the number of children under	Overweight (2030 target: reduce the number of children under 5 with overweight to less than 3 per cent)	Wasting (2030 target: reduce the number of children under 5 with wasting to less than 3 per cent)
On track	AARR > required or prevalence < 3% ii	AARR > required ⁱⁱⁱ or prevalence < 3% ^{iv}	AARR > required ⁱⁱⁱ or prevalence < 3% ^{iv}
Off track (some progress)	AARR < required, but > 0.5	AARR < required, but > 1.5	AARR < required, but > 2.0
Off track (no progress)	-0.5 ≤ AARR < 0.5	-1.5 ≤ AARR < 1.5	-2.0 ≤ AARR < 2.0
Off track (worsening)	AARR < -0.5	AARR < -1.5	AARR < -2.0
Assessment not possible	Assessment not possible ^v	Assessment not possible ^v	Assessment not possible ^{vi}

i. Required AARR is based on the change in stunting prevalence corresponding to a 50 per cent reduction in the number of children affected by stunting between 2012 and 2030, considering the population growth estimated by the United Nations World Population Prospects.

ii. Countries where the point estimate or lower 95 per cent confidence interval for the year 2020 is <3 per cent are considered on track.

iii. Required AARR is based on the required change in overweight or wasting prevalence to reduce from the baseline (2012) prevalence to 3 per cent by 2030.

iv. Countries where the point estimate for the year 2020 is <3 per cent are considered on track.

v. Assessment is not possible for stunting and overweight where countries did not have any input data (e.g., household survey data) for the model that were more recent than 2000, and where modelled estimates remain pending final review.

vi. Assessment is not possible for wasting where countries do not have at least two data points between 2005 and 2020, with at least one point being more recent than 2012.

Country prevalence table (cont.)

				ODELLED	ESTI							
	_		iting (PERCE				veight (PER			Was	ting¹ (PERCE	
Country Name	2012 value	2020 ² value	2020 threshold ³	Progress assessment ⁴	2012 value	2020 ² value	2020 threshold ³	Progress assessment ⁴	Year	Value	Threshold ³	Progress assessment ⁴
Cambodia	34.4	29.9	High		2.1	2.1	Very low		2014	9.7	Medium	
Cameroon	32.5	27.2	High		6.9	9.6	Medium		2018	4.3	Low	
Canada	-	-	No data		11.2	11.8	High		-	-	No data	
Central African Republic	41.4	40.1	Very high		3.5	2.6	Low		2019	5.2	Medium	
Chad	38.7	35.0	Very high		2.4	3.4	Low		2019	13.9	High	
Chile	1.9	1.6	Very low		10.4	9.8	Medium		2014	0.3	Very low	
China	7.4	4.7	Low		7.2	8.3	Medium		2017	1.9	Very low	
Colombia	12.9	11.5	Medium		5.2	5.8	Medium		2016	1.6	Very low	
Comoros	32.3	22.6	High		10.9	9.6	Medium		2012	11.2	High	
Congo	23.4	18.0	Medium		5.1	5.1	Medium		2014	8.2	Medium	
Cook Islands	-	-	No data		-	-	No data		-	-	No data	
Costa Rica	7.0	8.6	Low		8.3	8.1	Medium		2018	1.8	Very low	
Côte d'Ivoire	29.3	17.8	Medium		2.5	2.8	Low		2016	6.1	Medium	
Croatia	-	-	No data		-	-	No data		-	-	No data	
Cuba	7.1	7.0	Low		9.2	10.0	High		2019	2.0	Very low	
Cyprus	-	-	No data		-	-	No data		-	-	No data	
Czechia	2.4	2.5	Low		5.9	6.6	Medium		2001	4.6	Low	
Democratic People's Republic of Korea	26.1	18.2	Medium		1.3	1.9	Very low		2017	2.5	Low	
Democratic Republic of the Congo	42.8	40.8	Very high		4.6	4.2	Low		2017	6.4	Medium	
Denmark	-	-	No data		-	-	No data		-	-	No data	
Djibouti	31.7	34.0	Very high		7.2	7.2	Medium		2012	21.5	Very high	
Dominica	-	-	No data		-	-	No data		-	-	No data	
Dominican Republic	8.0	5.9	Low		7.8	7.6	Medium		2013	2.4	Very low	
Ecuador	24.1	23.1	High		7.3	9.8	Medium		2019	3.7	Low	
Egypt	22.5	22.3	High		15.8	17.8	Very high		2014	9.5	Medium	
El Salvador	16.0	11.2	Medium		6.0	6.6	Medium		2014	2.1	Very low	
Equatorial Guinea	25.5	19.7	Medium		8.8	9.3	Medium		2011	3.1	Low	
Eritrea	50.1	49.1	Very high		1.7	2.1	Very low		2010	14.6	High	
Estonia	1.3	1.2	Very low		5.1	5.7	Medium		2014	1.5	Very low	
Eswatini	29.2	22.6	High		10.6	9.7	Medium		2014	2.0	Very low	
Ethiopia	42.8	35.3	Very high		2.5	2.6	Low		2019	7.2	Medium	
Fiji	8.5	7.5	Low		4.8	5.2	Medium		2004	6.3	Medium	
Finland	-	-	No data		-	-	No data		-	-	No data	
France	-	-	No data		-	-	No data		-	-	No data	
Gabon	17.2	14.4	Medium		6.5	7.4	Medium		2012	3.4	Low	
Gambia	22.4	16.1	Medium		1.9	2.3	Very low		2020	5.1	Medium	
Georgia	9.2	5.7	Low		13.7	7.6	Medium		2018	0.6	Very low	
Germany	1.5	1.6	Very low		3.7	4.1	Low		2016	0.3	Very low	
Ghana	22.2	14.2	Medium		2.2	2.9	Low		2017	6.8	Medium	
Greece	2.1	2.2	Very low		14.2	13.9	High		2003	0.6	Very low	
Grenada	-	-	No data		-	-	No data		-	-	No data	
Guatemala	47.5	42.8	Very high		5.4	5.1	Medium		2015	0.8	Very low	
Guinea	33.8	29.4	High		4.1	5.7	Medium		2018	9.2	Medium	
Guinea-Bissau	29.7	28.0	High		2.7	3.4	Low		2019	7.8	Medium	
Guyana	14.4	9.0	Low		5.9	6.6	Medium		2019	6.4	Medium	
Haiti	23.9	20.4			3.6	3.7	Low		2014	3.7	Low	
Holy See			High						2017			
	- 22.7	10.0	No data		-		No data			1.4	No data	
Honduras	22.7	19.9	Medium		5.0	5.7	Medium		2012	1.4	Very low	

Country numbers affected (thousands) table (cont.)

		Stunting		MODELLED	ESTIM A	TES Overweig	ht (NUMBE	FRS)	W	/asting	1 (NUMBERS)
Country Name	2012	Share of 2012	2020 ²	Share of 2020 ² abung	2012	Share of 2012	2020 ²		footnote	Ĭ	Value
Country Name	value	global	value	global	value	global	value	global	foot	Year	value
Cambodia	602.2	0.3	531.9	0.4	36.8	0.1	37.4	0.1		2014	171.0
Cameroon	1176.5	0.7	1119.5	0.8	249.8	0.7	395.1	1.0		2018	172.3
Canada	-	-	-	-	217.8	0.6	235.2	0.6		-	-
Central African Republic	306.1	0.2	296.0	0.2	25.9	0.1	19.2	<0.1		2019	37.9
Chad	949.2	0.5	1025.7	0.7	58.9	0.2	99.6	0.3		2019	400.4
Chile	23.7	<0.1	18.6	<0.1	129.7	0.4	113.9	0.3		2014	3.7
China	6390.9	3.7	3944.8	2.6	6218.2	16.8	6966.4	17.9		2017	1644.2
Colombia	476.3	0.3	426.7	0.3	192.0	0.5	215.2	0.6		2016	60.9
Comoros	36.0	<0.1	27.9	<0.1	12.1	<0.1	11.9	<0.1		2012	12.5
Congo	173.9	0.1	148.0	0.1	37.9	0.1	41.9	0.1		2014	62.8
Cook Islands	-	-	-	-	-	-	-	-		-	-
Costa Rica	25.2	<0.1	29.9	<0.1	29.8	0.1	28.2	0.1		2018	6.3
Côte d'Ivoire	1013.3	0.6	735.4	0.5	86.5	0.2	115.7	0.3		2016	230.3
Croatia	-	-	-	-	-	-	-	-		-	-
Cuba	43.6	<0.1	40.0	<0.1	56.5	0.2	57.1	0.1		2019	12.0
Cyprus	-	-	-	-	-	-	-	-		-	-
Czechia	13.8	<0.1	14.0	<0.1	34.0	0.1	36.9	0.1		2001	19.4
Democratic People's Republic of Korea	429.8	0.2	317.8	0.2	21.4	0.1	33.2	0.1		2017	43.5
Democratic Republic of the Congo	5551.3	3.2	6457.6	4.3	596.6	1.6	664.8	1.7		2017	956.5
Denmark	-	-	-	-	-	-	-	-		-	-
Djibouti	29.3	<0.1	33.7	<0.1	6.7	<0.1	7.1	<0.1		2012	19.9
Dominica	-	-	-	-	-	-	-	-		-	-
Dominican Republic	79.7	<0.1	59.2	<0.1	77.7	0.2	76.2	0.2		2013	23.8
Ecuador	380.0	0.2	385.1	0.3	115.1	0.3	163.4	0.4		2019	62.1
Egypt	2411.9	1.4	2831.5	1.9	1693.7	4.6	2260.1	5.8		2014	1132.6
El Salvador	96.7	0.1	64.5	<0.1	36.3	0.1	38.0	0.1		2014	12.6
Equatorial Guinea	40.9	<0.1	39.3	<0.1	14.1	<0.1	18.6	<0.1		2011	4.8
Eritrea	267.3	0.2	243.1	0.2	9.1	<0.1	10.4	<0.1		2010	76.6
Estonia	1.0	<0.1	0.8	<0.1	3.9	<0.1	3.9	<0.1		2014	1.1
Eswatini	44.6	<0.1	32.5	<0.1	16.2	<0.1	13.9	<0.1		2014	2.9
Ethiopia	6274.8	3.6	5927.4	4.0	366.5	1.0	436.6	1.1		2019	1192.4
Fiji	7.9	<0.1	6.7	<0.1	4.4	<0.1	4.6	<0.1		2004	5.7
Finland	-	-	-	-		-		-		-	-
France	_	_	_	_	-	-	_	-		_	-
Gabon	43.7	<0.1	46.1	<0.1	16.5	<0.1	23.7	0.1		2012	8.8
Gambia	75.6	<0.1	65.9	<0.1	6.4	<0.1	9.4	<0.1		2020	20.9
Georgia	25.8	<0.1	15.3	<0.1	38.4	0.1	20.4	0.1		2018	1.8
Germany	50.9	<0.1	64.9	<0.1	125.7	0.1	166.4	0.1		2016	10.8
										2016	
Ghana Greece	832.5	0.5 <0.1	592.1 9.0	0.4 <0.1	82.5 76.2	0.2	120.9 56.9	0.3		2017	277.4 3.1
	11.3		9.0		10.2	0.2	50.9			2003	3.1
Grenada	010.4	- 0.5	0040	- 0.6	104 5	0.2	105.0	- 0.2		2015	15.0
Guatemala	919.4	0.5	884.0	0.6	104.5	0.3	105.3	0.3		2015	15.0
Guinea	617.8	0.4	617.4	0.4	74.9	0.2	119.7	0.3		2018	185.8
Guinea-Bissau	79.7	<0.1	85.4	0.1	7.2	<0.1	10.4	<0.1		2019	23.6
Guyana	10.5	<0.1	6.6	<0.1	4.3	<0.1	4.9	<0.1		2014	4.8
Haiti	303.6	0.2	257.6	0.2	45.7	0.1	46.7	0.1		2017	47.3
Holy See	-	-	-	-	-	-	-	-		-	-
Honduras	231.8	0.1	202.4	0.1	51.0	0.1	58.0	0.1		2012	14.0

Country prevalence table (cont.)

		Stur	M Iting (PERCE	ODELLEI	DEST		s veight (PER	CENT)			Was	ting¹ (PERCE	NT)
Occupies Name	2012	2020 ²	2020	Progress assessment ⁴	월 2012	2020 ²	2020	Progress	footnote	Vaar		Threshold ³	Progress
Country Name	value	value	threshold ³	assessment ⁴	value	value	threshold ³	assessment ⁴	foot	Year	Value	Tillesilolu	assessment ⁴
Hungary	-	-	No data		-	-	No data			-	-	No data	
Iceland	-	-	No data		-	-	No data			-	-	No data	
India	41.7	30.9	Very high		2.4	1.9	Very low			2017	17.3	Very high	
Indonesia	34.5	31.8	Very high		8.2	11.1	High			2018	10.2	High	
Iran (Islamic Republic of)	6.1	6.3	Low		8.4	9.4	Medium			2010	4.0	Low	
Iraq	19.2	11.6	Medium		9.2	9.0	Medium			2018	3.0	Low	
Ireland	-	-	No data		-	-	No data			-	-	No data	
Israel	-	-	No data		-	-	No data			-	-	No data	
Italy	-	-	No data		-	-	No data			-	-	No data	
Jamaica	6.8	8.5	Low		7.2	6.8	Medium			2016	3.3	Low	
Japan	6.6	5.5	Low		2.0	2.4	Very low			2010	2.3	Very low	
Jordan	7.9	7.3	Low		5.7	7.1	Medium			2012	2.4	Very low	
Kazakhstan	11.1	6.7	Low		11.5	8.8	Medium			2015	3.1	Low	
Kenya	27.8	19.4	Medium		4.6	4.5	Low			2014	4.2	Low	
Kiribati	15.8	14.9	Medium		2.4	2.4	Very low			2018	3.5	Low	
Kuwait	4.8	6.0	Low		7.9	7.1	Medium			2017	2.5	Low	
Kyrgyzstan	16.0	11.4	Medium		7.6	5.8	Medium			2018	2.0	Very low	
Lao People's Democratic Republic	40.7	30.2	Very high		2.3	3.0	Low			2017	9.0	Medium	
Latvia	-	-	No data		-	-	No data			-	-	No data	
Lebanon	12.9	10.4	Medium		19.8	19.7	Very high			2004	6.6	Medium	
Lesotho	37.7	32.1	Very high		7.0	7.2	Medium			2018	2.1	Very low	
Liberia	35.6	28.0	High		3.2	4.7	Low			2019	3.4	Low	
Libya	29.3	43.5	Very high		25.6	25.4	Very high			2014	10.2	High	
Liechtenstein	-	-	No data		-	-	No data			-	-	No data	
Lithuania	-	-	No data		-	-	No data			-	-	No data	
Luxembourg	-	-	No data		-	-	No data			-	-	No data	
Madagascar	47.9	40.2	Very high		1.8	1.5	Very low			2018	6.4	Medium	
Malawi	43.8	37.0	Very high		5.7	4.7	Low			2019	0.6	Very low	
Malaysia	18.3	20.9	High		6.0	6.1	Medium			2019	9.7	Medium	
Maldives	17.2	14.2	Medium		5.8	4.6	Low			2017	9.1	Medium	
Mali	30.9	25.7	High		1.6	2.1	Very low			2019	9.3	Medium	
Malta	-	-	No data		-	-	No data			-	-	No data	
Marshall Islands	36.2	32.2	Very high		4.1	4.2	Low			2017	3.5	Low	
Mauritania	27.0	24.2	High		1.9	2.7	Low			2018	11.5	High	
Mauritius	9.0	8.7	Low		⁵ 7.4	7.6	Medium		5	1995	-	No recent data	
Mexico	12.7	12.1	Medium		6.7	6.3	Medium			2019	1.4	Very low	
Micronesia (Federated States of)	-	-	No data		-	-	No data			-	-	No data	
Monaco	-	-	No data		-	-	No data			-	-	No data	
Mongolia	12.6	7.1	Low		10.2	10.1	High			2018	0.9	Very low	
Montenegro	8.2	8.1	Low		15.3	10.2	High			2018	2.2	Very low	
Montserrat	-	-	No data		-	-	No data			-	-	No data	
Morocco	16.4	12.9	Medium		11.8	11.3	High			2017	2.6	Low	
Mozambique	42.9	37.8	Very high		5.7	6.0	Medium			2015	4.4	Low	
Myanmar	31.9	25.2	High		2.2	1.5	Very low			2018	6.7	Medium	
Namibia	24.1	18.4	Medium		4.3	5.0	Medium			2013	7.1	Medium	
Nauru	20.3	15.0	Medium		3.1	3.7	Low			2007	1.0	Very low	
Nepal	40.3	30.4	Very high		1.4	1.8	Very low			2019	12.0	High	
Netherlands	1.5	1.6	Very low		4.1	5.0	Medium			2009	1.0	Very low	

Country numbers affected (thousands) table (cont.)

				MODELLE	D I	ESTIM/					
		Stunting					Overweig				ng¹ (NUMBERS)
Country Name	2012 value	Share of 2012 global	2020 ² value	Share of 2020 ² global	footnote	2012 value	Share of 2012 global	2020² value	Share of 2020 ² global	Year	Value
Hungary	-	-	-	-		-	-	-	-	-	-
Iceland	-	-	-	-		-	-	-	-	-	-
India	52257.6	30.1	36115.8	24.2		3007.6	8.1	2220.7	5.7	2017	20097.8
Indonesia	8103.8	4.7	7523.3	5.0		1926.1	5.2	2626.1	6.8	2018	2483.7
Iran (Islamic Republic of)	397.2	0.2	481.2	0.3		547.0	1.5	717.9	1.8	2010	250.1
Iraq	919.2	0.5	624.1	0.4		440.5	1.2	484.2	1.2	2018	163.7
Ireland	-	-	-	-		-	-	-	-	-	-
Israel	-	-	-	-		-	-	-	-	-	-
Italy	-	-	-	-		-	-	-	-	-	-
Jamaica	15.8	<0.1	19.6	<0.1		16.8	<0.1	15.7	<0.1	2016	8.0
Japan	366.6	0.2	262.8	0.2		111.1	0.3	114.7	0.3	2010	127.7
Jordan	86.1	<0.1	77.2	0.1		62.1	0.2	75.1	0.2	2012	26.4
Kazakhstan	197.7	0.1	128.7	0.1		204.9	0.6	169.0	0.4	2015	60.6
Kenya	1951.0	1.1	1366.6	0.9		322.8	0.9	317.0	0.8	2014	293.9
Kiribati	2.4	<0.1	2.3			0.4	<0.1	0.4	<0.1	2018	0.5
Kuwait	14.5	<0.1	17.4	<0.1		23.8	0.1	20.6	0.1	2017	7.6
Kyrgyzstan	109.5	0.1	86.7	0.1		52.0	0.1	44.1	0.1	2018	16.0
Lao People's Democratic Republic	323.9	0.2	240.7	0.2		18.3	<0.1	23.9	0.1	2017	70.4
Latvia	_	_	_	_		_	_	_	_		
Lebanon	59.0	<0.1	58.9	<0.1		90.6	0.2	111.5	0.3	2004	28.6
Lesotho	92.7	0.1	81.4	0.1		17.2	<0.1	18.3	<0.1	2018	5.2
Liberia	237.6	0.1	207.3	0.1		21.4	0.1	34.8	0.1	2019	24.8
Libya	194.0	0.1	271.4	0.2		169.5	0.5	158.5	0.4	2014	67.7
Liechtenstein	10 1.0	-	271.1	-		100.0	-	100.0	-	2011	01.1
Lithuania		_	_	_			_	_			
Luxembourg			_	_			_		_		
Madagascar	1689.9	1.0	1652.0	1.1		63.5	0.2	61.6	0.2	2018	253.4
Malawi	1195.7	0.7	1081.9	0.7		155.6	0.4	137.4	0.4	2019	17.8
Malaysia	444.8	0.3	550.7	0.4		145.8	0.4	160.7	0.4	2019	254.2
Maldives	6.2	<0.1	5.1	<0.1		2.1	<0.1	1.6	<0.1	2019	3.4
Mali	955.7	0.6	926.6	0.6		49.5	0.1	75.7	0.2	2019	329.0
Marta	2.0	-0.1	-			0.0	-0.1	0.2		2017	0.2
Marshall Islands	2.8	<0.1	2.2			0.3	<0.1	0.3	<0.1	2017	0.3
Mauritania	157.4	0.1	166.9		5	11.1	<0.1	18.6	<0.1	2018	76.8
Mauritius	6.6	<0.1	5.6			5.4	<0.1	4.9	10.1	1995	157.4
Mexico	1418.7	0.8	1326.0	0.9		748.4	2.0	690.4	1.8	2019	157.4
Micronesia (Federated States of)	-	-	-	-		-	-	-	-		-
Monaco	-	-	-	-		-	-	-		-	-
Mongolia	40.7	<0.1	26.7			33.0	0.1	37.9	0.1	2018	3.5
Montenegro	3.2	<0.1	3.0	<0.1		6.0	<0.1	3.8	<0.1	2018	0.8
Montserrat	-	-	-			-	-	-	-	-	-
Morocco	537.3	0.3	428.9			386.6	1.0	375.7	1.0	2017	90.3
Mozambique	1862.9	1.1	1949.2			247.5	0.7	309.4	0.8	2015	204.9
Myanmar	1508.2	0.9	1136.2	0.8		104.0	0.3	67.6	0.2	2018	302.7
Namibia	74.4	<0.1	61.8	<0.1		13.3	<0.1	16.8	<0.1	2013	22.4
Nauru	0.3	<0.1	0.2	<0.1		<0.1	<0.1	<0.1	<0.1	2007	<0.1
Nepal	1181.1	0.7	822.9	0.6		41.0	0.1	48.7	0.1	2019	324.8
Netherlands	13.4	<0.1	13.7	<0.1		36.6	0.1	42.9	0.1	2009	9.9

Country prevalence table (cont.)

		Stur	M nting (PERCE	ODELLE	D	ESTII		eight (PERC	CENT)			Was	ting¹ (PERCE	NT)
Country Name	2012 value	2020² value	2020 threshold ³	Progress assessment ⁴	footnote	2012 value	2020 ² value	2020 threshold ³	Progress assessment ⁴	footnote	Year	Value	Threshold ³	Progress assessment ⁴
New Zealand	-	-	No data			-	-	No data			-	-	No data	•
Nicaragua	17.4	14.1	Medium			7.2	7.5	Medium			2012	2.2	Very low	
Niger	48.3	46.7	Very high			0.9	1.9	Very low			2019	9.8	Medium	
Nigeria	38.0	35.3	Very high			2.5	2.7	Low			2020	6.5	Medium	
Niue	-	-	No data			-	-	No data			-	-	No data	
North Macedonia	5.8	4.1	Low			13.4	10.0	High			2019	3.4	Low	
Norway	-	-	No data			-	-	No data			-	-	No data	
Oman	11.3	12.2	Medium			3.0	4.8	Low			2017	9.3	Medium	
Pakistan	43.4	36.7	Very high			4.6	3.4	Low			2018	7.1	Medium	
Palau	-	-	No data			-	-	No data			-	-	No data	
Panama	20.0	14.7	Medium			10.1	10.8	High			2008	1.2	Very low	
Papua New Guinea	47.2	48.4	Very high			8.1	8.9	Medium			2010	14.1	High	
Paraguay	9.6	4.6	Low			10.1	12.0	High			2016	1.0	Very low	
Peru	18.8	10.8	Medium			8.7	8.0	Medium			2019	0.4	Very low	
Philippines	32.2	28.7	High			3.4	4.2	Low			2018	5.6	Medium	
Poland	2.3	2.3	Very low			5.9	6.7	Medium			2011	0.7	Very low	
Portugal	3.8	3.3	Low			7.6	8.5	Medium			2016	0.6	Very low	
Qatar	6.0	4.6	Low		5	13.1	13.9	High		5	1995	-	No recent data	
Republic of Korea	2.2	2.2	Very low			7.7	8.8	Medium			2009	1.2	Very low	
Republic of Moldova	7.1	4.9	Low			6.2	4.3	Low			2012	1.9	Very low	
Romania	10.6	9.7	Low			9.5	6.7	Medium			2002	3.5	Low	
Russian Federation	-	-	No data			-	-	No data			-	-	No data	
Rwanda	40.5	32.6	Very high			5.7	5.2	Medium			2020	1.1	Very low	
Saint Kitts and Nevis	-	-	No data			-	-	No data			-	-	No data	
Saint Lucia	2.7	2.8	Low			6.5	6.9	Medium			2012	3.7	Low	
Saint Vincent and the Grenadines	-	-	No data			-	-	No data			-	-	No data	
Samoa	5.7	6.8	Low			6.7	7.1	Medium			2019	3.1	Low	
San Marino	-	-	No data			-	-	No data			-	-	No data	
Sao Tome and Principe	18.3	11.8	Medium			2.7	4.0	Low			2019	4.1	Low	
Saudi Arabia	5.5	3.9	Low			6.2	7.6	Medium			2004	11.8	High	
Senegal	19.8	17.2	Medium			1.5	2.1	Very low			2019	8.1	Medium	
Serbia	6.2	5.3	Low			15.5	10.8	High			2019	2.6	Low	
Seychelles	8.0	7.4	Low			9.6	9.8	Medium			2012	4.3	Low	
Sierra Leone	35.4	26.8	High			3.4	4.7	Low			2019	5.4	Medium	
Singapore	3.2	2.8	Low			4.0	4.8	Low			2000	3.6	Low	
Slovakia	-	-	No data			-	-	No data			-	-	No data	
Slovenia	-	-	No data			-	-	No data			-	-	No data	
Solomon Islands	31.9	29.3	High			3.5	4.0	Low			2015	8.5	Medium	
Somalia	31.1	27.4	High			3.1	2.9	Low			2009	14.3	High	
South Africa	23.6	23.2	High			12.8	12.9	High			2017	3.4	Low	
South Sudan	32.1	30.6	Very high			6.4	5.7	Medium			2010	22.7	Very high	
Spain	-	-	No data			-	-	No data			-	-	No data	
Sri Lanka	16.8	16.0	Medium			1.2	1.3	Very low			2016	15.1	Very high	
State of Palestine	10.3	7.8	Low			8.1	8.5	Medium			2020	1.3	Very low	
Sudan	36.0	33.7	Very high			2.5	2.7	Low			2014	16.3	Very High	
Suriname	8.7	8.0	Low			3.8	4.0	Low			2018	5.5	Medium	
Sweden	-	-	No data			-	-	No data			-	-	No data	
Switzerland	-	-	No data			-	-	No data			-	-	No data	

Country numbers affected (thousands) table (cont.)

		Stunting		MODELLE	D I	ESTIM A	TES Overweig	ht (NUMBE	ERS)	V	Vasting ¹	(NUMBERS)
Country Name	2012 value	Share of 2012 global	2020² value	Share of 2020 ² global	footnote	2012 value	Share of 2012 global	2020² value		footnote	Year	Value
New Zealand	-	-	-	-		-	-	-	-		-	-
Nicaragua	116.6	0.1	92.6	0.1		48.3	0.1	49.3	0.1		2012	14.4
Niger	1782.3	1.0	2235.8	1.5		33.2	0.1	91.0	0.2		2019	453.2
Nigeria	11060.9	6.4	11980.4	8.0		727.7	2.0	916.3	2.4		2020	2191.1
Niue	-	-	-	-		-	-	-	-		-	-
North Macedonia	6.5	<0.1	4.6	<0.1		14.9	<0.1	11.2	<0.1		2019	3.8
Norway	-	-	-	-		-	-	-	-		-	-
Oman	37.1	<0.1	55.3	<0.1		9.9	<0.1	21.8	0.1		2017	39.4
Pakistan	10749.9	6.2	10262.4	6.9		1139.4	3.1	950.7	2.4		2018	1935.3
Palau	-	-	-	-		-	-	-	-		-	-
Panama	75.4	<0.1	57.2	<0.1		38.1	0.1	42.0	0.1		2008	4.5
Papua New Guinea	488.0	0.3	535.9	0.4		83.7	0.2	98.5	0.3		2010	142.3
Paraguay	66.8	<0.1	32.3	<0.1		70.2	0.2	84.1	0.2		2016	6.6
Peru	557.7	0.3	306.0	0.2		258.1	0.7	226.7	0.6		2019	11.6
Philippines	3621.8	2.1	3046.9	2.0		382.4	1.0	445.9	1.1		2018	618.0
Poland	47.2	<0.1	43.4	<0.1		121.1	0.3	126.3	0.3		2011	15.5
Portugal	18.0	<0.1	13.2	<0.1		35.9	0.1	34.1	0.1		2016	2.5
Qatar	6.6	<0.1	6.2	<0.1	5	14.5	<0.1	18.8	<0.1	5	1995	-
Republic of Korea	51.2	<0.1	41.7	<0.1		179.3	0.5	166.9	0.4		2009	27.6
Republic of Moldova	16.0	<0.1	9.9	<0.1		14.0	<0.1	8.7	<0.1		2012	4.3
Romania	116.7	0.1	91.1	0.1		104.6	0.3	63.0	0.2		2002	40.2
Russian Federation	-	-	-	-		-	-	-	-		-	-
Rwanda	661.7	0.4	614.5	0.4		93.1	0.3	98.0	0.3		2020	20.7
Saint Kitts and Nevis	-	-	-	-		-	-	-	-		-	-
Saint Lucia	0.3	<0.1	0.3	<0.1		0.7	<0.1	0.7	<0.1		2012	0.4
Saint Vincent and the Grenadines	-	-	-	-		-	-	-	-		-	-
Samoa	1.6	<0.1	1.8	<0.1		1.8	<0.1	1.9	<0.1		2019	0.9
San Marino	-	-	-	-		-	-	-	-		-	-
Sao Tome and Principe	5.5	<0.1	3.7	<0.1		0.8	<0.1	1.3	<0.1		2019	1.3
Saudi Arabia	163.2	0.1	116.2	0.1		183.9	0.5	226.4	0.6		2004	318.9
Senegal	452.6	0.3	449.8	0.3		34.3	0.1	54.9	0.1		2019	210.2
Serbia	28.8	<0.1	22.2	<0.1		72.1	0.2	45.3	0.1		2019	11.0
Seychelles	0.6	<0.1	0.6	<0.1		0.8	<0.1	0.8	<0.1		2012	0.3
Sierra Leone	382.9	0.2	310.5	0.2		36.8	0.1	54.5	0.1		2019	61.5
Singapore	6.7	<0.1	7.2	<0.1		8.4	<0.1	12.4	<0.1		2000	8.5
Slovakia	-	-	-	-		-	-	-	-		-	-
Slovenia	-	-	-	-		-	-	-	-		-	-
Solomon Islands	26.9	<0.1	30.2	<0.1		3.0	<0.1	4.1	<0.1		2015	7.9
Somalia	737.0	0.4	774.5	0.5		73.5	0.2	82.0	0.2		2009	317.4
South Africa	1357.7	0.8	1337.5	0.9		736.4	2.0	743.7	1.9		2017	197.1
South Sudan	539.2	0.3	522.5	0.4		107.5	0.3	97.3	0.3		2010	360.0
Spain	-	-	-	-		-	-	-	-		-	-
Sri Lanka	296.4	0.2	265.7	0.2		21.2	0.1	21.6	0.1		2016	258.1
State of Palestine	67.3	<0.1	54.0	<0.1		52.9	0.1	58.9	0.2		2020	9.2
Sudan	2049.0	1.2	2136.3	1.4		142.3	0.4	171.2	0.4		2014	950.7
Suriname	4.6	<0.1	4.2			2.0	<0.1	2.1	<0.1		2018	2.9
Sweden	-	-	-	-		-	-	-	-		-	
Switzerland	-	-	-	-		-	-	-	-		-	-

Country prevalence table (cont.)

			М	ODELLE	D	ESTI	MATES	3						
		Stun	ting (PERCE	NT)			Overw	eight (PERG	CENT)			Was	ting¹ (PERCE	NT)
Country Name	2012 value	2020² value	2020 threshold ³	Progress assessment ⁴	footnote	2012 value	2020 ² value	2020 threshold ³	Progress assessment ⁴	footnote	Year	Value	Threshold ³	Progress assessment ⁴
Syrian Arab Republic	27.6	29.6	High			19.2	18.2	Very high			2010	11.5	High	
Tajikistan	26.5	15.3	Medium			5.6	3.5	Low			2017	5.6	Medium	
Thailand	13.9	12.3	Medium			8.7	9.2	Medium			2019	7.7	Medium	
Timor-Leste	52.8	48.8	Very high			3.0	2.6	Low			2013	9.9	Medium	
Togo	27.4	23.8	High			1.7	2.4	Very low			2017	5.7	Medium	
Tokelau	-	-	No data			-	-	No data			-	-	No data	
Tonga	6.7	2.6	Low			13.2	12.6	High			2019	1.1	Very low	
Trinidad and Tobago	8.5	8.7	Low			9.5	11.0	High			2011	6.4	Medium	
Tunisia	9.1	8.6	Low			10.9	16.5	Very high			2018	2.1	Very low	
Turkey	-	-	No data		6	-	-	No data		6	2018	1.7	Very low	
Turkmenistan	13.0	7.6	Low			5.0	3.8	Low			2019	4.1	Low	
Turks and Caicos Islands	-	-	No data			-	-	No data			-	-	No data	
Tuvalu	10.0	9.7	Low			6.2	6.4	Medium			2007	3.3	Low	
Uganda	34.1	27.9	High			3.9	4.0	Low			2016	3.5	Low	
Ukraine	19.1	15.9	Medium			25.7	17.0	Very high			2000	8.2	Medium	
United Arab Emirates	-	-	No data			-	-	No data			-	-	No data	
United Kingdom	-	-	No data			-	-	No data			-	-	No data	
United Republic of Tanzania	38.3	32.0	Very high			4.7	5.5	Medium			2018	3.5	Low	
United States	2.7	3.2	Low			8.6	8.8	Medium			2018	0.1	Very low	
Uruguay	8.9	6.5	Low			9.8	10.3	High			2018	1.4	Very low	
Uzbekistan	14.2	9.9	Low			8.6	5.0	Medium			2017	1.8	Very low	
Vanuatu	27.3	28.7	High			4.8	4.9	Low			2013	4.7	Low	
Venezuela (Bolivarian Republic of)	12.5	10.6	Medium			6.4	6.7	Medium			2009	4.1	Low	
Viet Nam	25.9	22.3	High			4.2	6.0	Medium			2017	5.8	Medium	
Yemen	47.4	37.2	Very high			2.9	2.7	Low			2013	16.4	Very High	
Zambia	41.3	32.3	Very high			6.2	5.7	Medium			2018	4.2	Low	
Zimbabwe	31.4	23.0	High			4.7	3.6	Low			2019	2.9	Low	

Additional information

Prevalence thresholds for wasting, overweight and stunting in children under 5 years

New thresholds, presented in Table 2, were established through the WHO-UNICEF Technical Advisory Group on Nutrition Monitoring (TEAM)8 and released in 2018. These new thresholds have been used for development of prevalence-based assessments in maps and tables in this brochure. The thresholds were developed in relation to standard deviations (SD) of the normative WHO Child Growth Standards. The international definition of 'normal' (two SD from the WHO standards median) defines the first threshold, which includes 2.3 per cent of the area under the normalized distribution. Multipliers of this 'very low' level (rounded to 2.5 per cent) set the basis for establishing subsequent thresholds.

Table 2. Prevalence thresholds and corresponding labels for stunting, wasting and overweight

	Prevalence thresholds (%)						
Labels	Stunting	Wasting and Overweight					
Labels	Stanting	wasting and overweight					
Very low	< 2.5	< 2.5					
Low	2.5 - < 10	2.5 - < 5					
Medium	10 - < 20	5 - < 10					
High	20 - <30	10 - < 15					
Very high	≥ 30	≥ 15					

Country numbers affected (thousands) table (cont.)

	MODELLED ESTIMATES											
	Stunting (NUMBERS)				Overweight (NUMBERS)					Wasting ¹	(NUMBERS)	
Country Name	2012 value	Share of 2012 global	2020² value	Share of 2020 ² global	footnote	2012 value	Share of 2012 global	2020² value	Share of 2020 ² global	footnote	Year	Value
Syrian Arab Republic	748.5	0.4	568.1	0.4		520.7	1.4	349.3	0.9		2010	339.8
Tajikistan	291.4	0.2	207.6	0.1		61.6	0.2	47.5	0.1		2017	72.5
Thailand	557.0	0.3	442.3	0.3		348.7	0.9	330.8	0.9		2019	280.5
Timor-Leste	82.0	<0.1	86.9	0.1		4.7	<0.1	4.6	<0.1		2013	15.3
Togo	302.1	0.2	290.4	0.2		18.7	0.1	29.3	0.1		2017	67.1
Tokelau	-	-	-	-		-	-	-	-		-	-
Tonga	0.9	<0.1	0.3	<0.1		1.8	<0.1	1.5	<0.1		2019	0.1
Trinidad and Tobago	8.3	<0.1	7.7	<0.1		9.3	<0.1	9.7	<0.1		2011	6.2
Tunisia	84.0	<0.1	86.4	0.1		100.7	0.3	165.7	0.4		2018	21.5
Turkey	-	-	-	-	6	-	-	-	-	6	2018	114.7
Turkmenistan	75.1	<0.1	50.2	<0.1		28.9	0.1	25.1	0.1		2019	27.7
Turks and Caicos Islands	-	-	-	-		-	-	-	-		-	-
Tuvalu	0.1	<0.1	0.1	<0.1		0.1	<0.1	0.1	<0.1		2007	<0.1
Uganda	2239.9	1.3	2175.1	1.5		256.2	0.7	311.8	0.8		2016	249.9
Ukraine	486.6	0.3	336.1	0.2		654.8	1.8	359.4	0.9		2000	177.3
United Arab Emirates	-	-	-	-		-	-	-	-		-	-
United Kingdom	-	-	-	-		-	-	-	-		-	-
United Republic of Tanzania	3164.5	1.8	3116.4	2.1		388.3	1.0	535.6	1.4		2018	326.1
United States	558.3	0.3	629.6	0.4		1778.4	4.8	1731.5	4.5		2018	19.5
Uruguay	20.9	<0.1	15.4	<0.1		23.0	0.1	24.4	0.1		2018	3.4
Uzbekistan	450.3	0.3	339.7	0.2		272.7	0.7	171.6	0.4		2017	61.4
Vanuatu	10.1	<0.1	12.1	<0.1		1.8	<0.1	2.1	<0.1		2013	1.8
Venezuela (Bolivarian Republic of)	367.0	0.2	250.5	0.2		187.9	0.5	158.3	0.4		2009	118.6
Viet Nam	1925.3	1.1	1760.0	1.2		312.2	0.8	473.5	1.2		2017	449.1
Yemen	1782.3	1.0	1530.9	1.0		109.0	0.3	111.1	0.3		2013	629.1
Zambia	1068.3	0.6	951.7	0.6		160.4	0.4	167.9	0.4		2018	121.3
Zimbabwe	670.0	0.4	482.4	0.3		100.3	0.3	75.5	0.2		2019	61.4

2025 and 2030 global targets on stunting, wasting and overweight among children under 5 years of age

Progress towards the 2030 SDG targets (presented on page 5 and in the country tables on pages 16 to 25) was assessed using the 2030 targets proposed as an extension of the 2025 global nutrition targets (Table 3).9

Table 3. The global nutrition targets endorsed by the World Health Assembly and their extension to 2030° for child malnutrition indicators

Indicator	2025 target	2030 target					
Stunting	Reduce the number of children under 5 who are stunted by 40%	Reduce the number of children under 5 who are stunted by 50%					
Wasting	Reduce and maintain childhood wasting to less than 5%	Reduce and maintain childhood wasting to less than 3%					
Overweight	No increase in childhood overweight prevalence	Reduce and maintain childhood overweight to less than 3%					

NOTE: *Targets were set considering the baseline year 2012.

JME METHODOLOGY

The UNICEF-WHO-World Bank JME Working Group was established in 2011 to address the call for harmonized child malnutrition estimates that would be instrumental in benchmarking progress on child malnutrition. The first edition of the JME was released in 2012 and provided estimates for stunting, wasting, severe wasting, underweight and overweight, as well as a detailed description of the methodology. 10,11 Since its inception, the JME outputs have comprised a harmonized country-level dataset of primary data (e.g., national estimates based on household surveys), as well as regional and global model-based estimates.

For the first time in 2021, the JME also includes country-level modelled estimates for stunting and overweight based on updated methodology¹² developed by the JME Working Group in partnership with the University of South Carolina. The regional and global figures for stunting and overweight are now also based on these country model outputs, while they remain based on the previously applied sub-regional model for wasting and severe wasting. 10, 11 Additional work is ongoing to update methods for wasting and severe wasting for which available data are not as stable as for stunting and overweight (see section about regional and global estimates on page 27). The JME process for the 2021 edition involved the following steps: (i) updating of the country dataset of primary sources (e.g., national household surveys); (ii) application of a country level model for stunting and overweight to generate annual estimates; (iii) generation of regional and global aggregates for stunting, wasting, severe wasting and overweight; and (iv) consultation with countries before finalizing and disseminating the 2021 estimates. Key parts of the JME are described in more detail below.

Country-level estimates

The JME country dataset

The JME dataset of country estimates requires the collection of national data sources that contain information on child malnutrition - specifically, data on the height, weight and age of children under 5, which can be used to generate nationallevel prevalence estimates for stunting, wasting, severe wasting and overweight. These national-level data sources are mainly comprised of household surveys - e.g., Multiple Indicator Cluster Surveys (MICS), Demographic and Health Surveys (DHS), Standardized Monitoring and Assessment of Relief and Transition (SMART) surveys, and Living Standards Measurement Study (LSMS). Some administrative data sources (e.g., from surveillance systems) are also included where population coverage is high. As of the latest review closure on 31 January 2021, the primary source dataset contained 997 data sources from 157 countries and territories, with nearly 80 per cent of children living in countries with at least one data point on stunting, wasting and overweight that is less than five years old (see figure on page 28). This suggests that the global estimates are highly representative of the majority of children across the

globe for the most recent period, although recentness of data varies greatly by region.

The dataset contains the point estimate, and where available, the standard error, the 95 per cent confidence bounds and the unweighted sample size. Where microdata are available, the JME uses estimates that have been recalculated to adhere to the global standard definition.¹³ Where microdata are not available, reported estimates are used, except in cases where adjustments are required to standardize for: (i) use of an alternate growth reference from the 2006 WHO Growth Standards; (ii) age ranges that do not include the full 0-59-month age group; and (iii) data sources that were only nationally representative for populations residing in rural areas. Further details related to data source compilation, re-analysis of microdata, and data source review are provided elsewhere.14

The JME country dataset serves different purposes for different indicators. For wasting and severe wasting, the JME country dataset serves as the country estimates themselves (i.e., the wasting prevalence in the JME country dataset from a household survey for a country in a given year is the wasting prevalence reported for that country in that year). For stunting and overweight, the JME country dataset is used to generate countrymodelled estimates which serve as the official JME estimates (i.e., the stunting prevalence from a household survey for a given country in given year is not reported as the prevalence for that country in that year; rather, it feeds into the modelled estimates described in the next section below).

Country-level model for stunting and overweight estimates

Rationale

National surveys are administered sporadically, resulting in sparse data for many countries. This hampers efforts to monitor these countries' progress towards targets, such as the SDGs. The use of statistical models at country level is important to enable comparisons across countries during the same year, filling in the gaps. In addition, statistical models are an efficient way to adjust for unwarranted variability.

Model description

The technical details of the statistical models are provided elsewhere. 14 Briefly, for both stunting and overweight, prevalence was modelled at logit (log-odds) scale using a penalized longitudinal mixed-model with a heterogeneous error term. The quality of the models was quantified with model-fit criteria that balance the complexity of the model with the closeness of the fit to the observed data. The proposed method has important characteristics, including non-linear time trends, regional trends, country-specific trends, covariate data and a heterogeneous error term. All countries with data contribute to estimates of the overall time trend and the impact of covariate data on prevalence. For overweight, the covariate data consisted of linear and quadratic socio-demographic index (SDI),* and data source type. The same

^{*} SDI is a summary measure that identifies where countries or other geographic areas sit on the spectrum of development. Expressed on a scale of 0 to 1, SDI is a composite average of the rankings of the incomes per capita, average educational attainment, and fertility rates of all areas in the Global Burden of Disease study. 15

covariates were used for stunting, plus an additional covariate of the average health system access over the previous five years.

Model outcomes

Annual country-level modelled estimates from 2000 to 2020 on stunting and overweight were disseminated by the JME in 2021 for 155 countries with at least one data point (e.g., from a household survey) included in the JME country dataset described above. Modelled country estimates were also produced for an additional 49 countries, used solely for generation of regional and global aggregates. Modelled estimates for these 49 countries are not shown because they did not have any household surveys in the JME country dataset or because the modelled estimates remained pending final review at the time of publication. The results for the 204 countries can be used to calculate estimates and uncertainty intervals for any groups of countries aggregated.

The uncertainty intervals are important in monitoring trends, especially for countries with sparse data and where primary data sources present large primary data source sampling errors. When only sparse data are available in the most recent period, the inclusion of a survey can affect a substantial change in the predicted trajectory. For this reason, uncertainty intervals are needed to enhance trend interpretability in terms of the caution level employed. The uncertainty intervals for the new JME method have been tested and validated with various data types.

Regional and global estimates

Regional and global wasting and severe wasting estimates are only presented for the most recent year, 2020, unlike stunting and overweight estimates for which an annual time series is available from 2000 to 2020. This is because the JME are based on national-level country prevalence data, which come from cross-sectional surveys (i.e., a snapshot at one point in time) that are collected infrequently (every three to five years) in most countries. Since stunting and overweight are relatively stable over the course of a calendar year, it is reasonable to track changes in these two conditions over time with these data, whereas wasting is an acute condition that can change frequently and rapidly. An individual child can be affected by wasting more than once in a calendar year (i.e., can recover but then become wasted again in the same year), and the risk of wasting in many contexts can be driven by seasonal variations, which can result in seasonal spikes in prevalence. For example, wasting prevalence, in some contexts, may double between the post-harvest season (often associated with higher food availability and weather patterns that are less likely to cause disease) and the pre-harvest season (often associated with food shortages, heavy rains and related diseases that can affect nutrition status). Given that country surveys can be collected during any season, the prevalence estimate from any survey may be at a high or low; or it may fall somewhere in between if data collection spanned across several seasons. Thus, the prevalence of wasting captures the situation of wasting at a specific point in time and not over an entire year. Variations in seasons across surveys make it difficult to draws inferences on trends. The lack of methods to account for

seasonality and incident cases of wasting and severe wasting are the main reasons why the JME does not present annual trends for these forms of malnutrition.

Generation of regional and global estimates

Different methods were applied to generate regional and global estimates for stunting and overweight compared to wasting and severe wasting as described below. In short, results from the new country-level model were used to generate the regional and global estimates for stunting and overweight, while the JME subregional multi-level model 12,13 was used to generate the global and regional estimates for wasting and severe wasting.

Stunting and overweight

Global and regional estimates for all years from 2000 to 2020 were derived as the respective country averages weighted by the countries' under-five population from The United Nations World Population Prospects, 2019 Revision, using model-based estimates for 204 countries. This includes 155 countries with national data sources (e.g. household surveys) included in the JME country dataset described above. It also includes 49 countries with modelled estimates generated for development of regional and global aggregates but for which country modelled estimates are not shown because they did not have any household surveys in the JME country dataset or because the modelled estimates remained pending final review at the time of publication. Confidence intervals were generated based on bootstrapping methodology.

Wasting and severe wasting

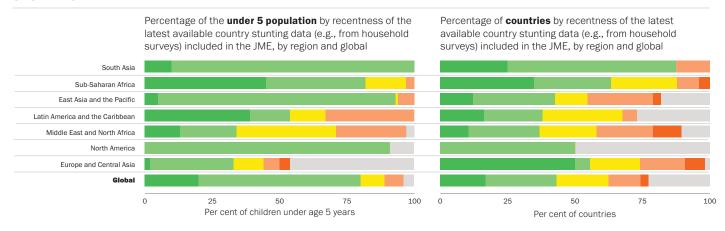
The wasting and severe wasting prevalence data from national data sources described in the above section about the JME country dataset were used to generate the regional and global estimates for the year 2020 using the JME sub-regional multilevel model, 10, 11 applying population weights for children under 5 years of age from the United Nations World Population Prospects, 2019 Revision.

Country consultations

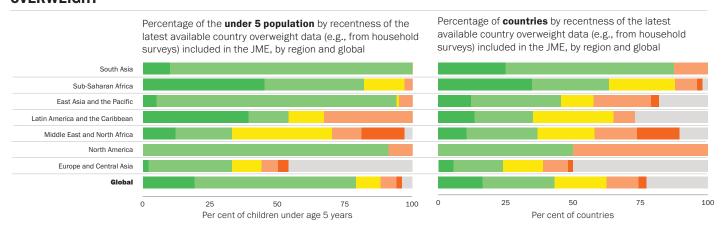
Joint UNICEF-WHO-World Bank Group country consultations were conducted from November 2020 to January 2021. The purpose of these consultations was to explain the updated methodology for stunting and overweight estimates to national governments; to ensure the estimates included all recent and relevant country data for stunting, wasting and overweight; and to engage with and receive feedback from national governments on the estimates. Following review of input received from national governments during the country consultations, eight additional sources were included in the JME country dataset before the estimates were finalized and disseminated through the 2021 edition of the JME.

Globally, nearly 80 per cent of children live in countries where at least one data point on stunting, wasting and overweight is less than 5 years old

STUNTING



OVERWEIGHT



These graphics show the recentness of the latest available country data points on malnutrition (e.g., from a household survey) among children under 5 years in the JME. The graphics in the left-hand column are by percentage of the under-five population and the graphics in the right-hand column are by the percentage of countries. Only stunting and overweight are shown because the data for wasting mirror those for stunting.

For the graphics by **percentage of the under-five** population (left column), the availability of data for each country was weighted by the under-five population, meaning that more populous countries contributed more to the percentages in each category than less populous ones. The more green there is for a region, the higher the percentage of children under 5 living in countries with very recent data (i.e., at least one data point in the last 5 years); the more orange there is, the higher the percentage of children living in countries with very old data (i.e., the latest data point is 10-20+ years old). Globally, about 80 per cent of children live in countries where the malnutrition prevalence data are less than five years old, while less than 5 per cent of children live in countries with no data at all. This suggests that the modelled regional and global estimates are highly representative of the situation of the majority of children across the globe for the most recent period.

The situation by percentage of countries (right-hand column) looks vastly different, with less than half of all countries having at least one data point in the last five years and one quarter of countries with no data at all. This indicates that the governments of many countries will not be able to adequately assess and plan programmes to combat malnutrition.

The recentness of data varies greatly by region. For example, 100 per cent of children under 5 in South Asia and 98 per cent of children in sub-Saharan Africa live in countries with recent data on stunting, wasting and overweight, 33 per cent of children in Europe and Central Asia live in countries with recent data. While almost all children under 5 in Latin America and the Caribbean live in countries with some available data, about one third live in countries with very old data (i.e., where the latest estimates for stunting, wasting and overweight are more than 10 years old). Further, 10 countries in Latin America and the Caribbean (27 per cent of countries in that region) with very small populations do not have any data on child malnutrition

Gaps in the available data make it challenging to accurately estimate the prevalence of malnutrition. Regular data collection (every three to five years) is critical to properly plan and monitor programmes to combat child malnutrition at country, regional and global levels going forward.

Recentness of the latest available country data point (e.g., from household surveys) on malnutrition among children aged under 5 years included in the JME



Note: Figures for wasting are the same as for stunting and are therefore not presented. The population coverage for the most recent five-year period is the value of the two green colours added together (i.e., the population coverage for stunting for the most recent five-year period in South Asia is 100 per cent).

ONLINE MATERIALS

Summary of available materials

This key findings report of the 2021 edition of the JME summarizes the new country, regional and global numbers and main messages for official United Nations data on child malnutrition. Additional information is available and the following materials can be downloaded from the links on the bottom right:

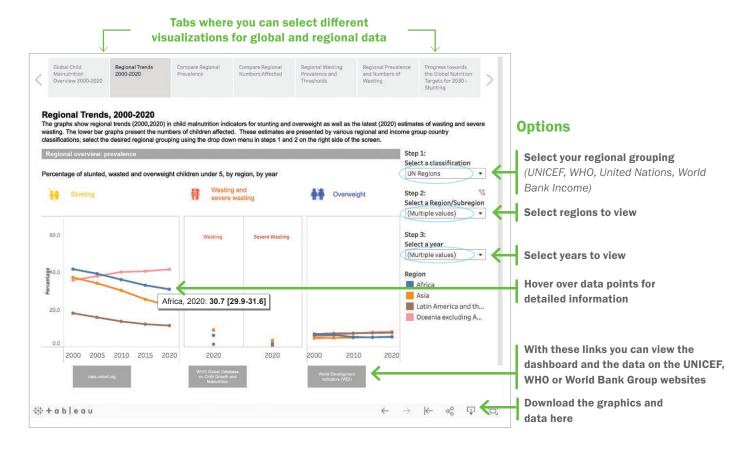
- The latest country-level joint malnutrition dataset, a time series of country estimates from sources such as household surveys that were used to generate the joint child malnutrition country, regional and global modelled estimates for stunting and overweight and the regional and global modelled estimates for wasting and severe wasting
- The country modelled estimates for stunting and overweight
- The joint malnutrition global and regional estimates database by various regional groupings (e.g., United Nations, UNICEF, WHO, etc., regional groupings) and for more years than presented in this brochure
- A reference document outlining the composition of the various regional groupings for which the joint estimates have been produced
- Interactive dashboards, which allow users to visualize and export the global and regional estimates for a number of regional groupings

UNICEF: https://data.unicef.org/resources/jme

WHO: <www.who.int/teams/nutrition-and-food-safety/ databases/nutgrowthdb>

World Bank Group: <data.worldbank.org/child-malnutrition>

Interactive dashboard overview



Additional online materials

Global targets tracking tool: https://www.who.int/tools/global-targets-tracking-tool

This tool allows users to explore scenarios, taking into account different rates of progress for the six Global Nutrition Targets and the time left to 2025 using the latest global databases such as the UNICEF-WHO-World Bank Joint Malnutrition Estimates for stunting, wasting and overweight.

ENDNOTES

Introduction (pages 2-3)

- 1 Headey, Derek, et al. (Standing Together for Nutrition consortium), 'Impacts of COVID-19 on childhood malnutrition and nutritionrelated mortality', The Lancet, vol. 396, no. 10250, August 2020, pp.519-521, https://doi.org/10.1016/S0140-6736(20)31647-0>, accessed April 2021.
- 2 World Health Organization and United Nations Children's Fund. 'WHO/UNICEF discussion paper: The extension of the 2025 maternal, infant and young child nutrition targets to 2030', WHO and UNICEF, Geneva and New York, 2017, https://www.who. int/nutrition/global-target-2025/discussion-paper-extensiontargets-2030.pdf>, accessed April 2021.
- 3 Christian, Parul, et al. 'Risk of childhood undernutrition related to small-for-gestational age and preterm birth in low- and middleincome countries,' International Journal of Epidemiology, vol. 42, no.5, October 2013, pps. 1340-1355, https://doi.org/10.1093/ije/ dyt109>, accessed April 2021.
- 4 Koletzko, Berthold, Holzapfel, Christina, Schneider, Ulrike, and Hans Hauner, 'Lifestyle and Body Weight Consequences of the COVID-19 Pandemic in Children: Increasing Disparity', Ann Nutr Metab, vol. 1, no. 3, January 2021, https://doi.org/10.1159/000514186, accessed April 2021.

Global and regional tables (page 15)

5 de Onis, Mercedes et al., 'Methodology for estimating regional and global trends of child malnutrition', International Journal of Epidemiology, vol., 33, no. 6, December 2004, pps. 1260-1270, https://doi.org/10.1093/ije/dyh202, accessed April 2021.

Country assessment tables (page 16-17)

- 6 World Health Organization and United Nations Children's Fund. 'WHO/UNICEF discussion paper: The extension of the 2025 maternal, infant and young child nutrition targets to 2030', WHO and UNICEF, Geneva and New York, 2017, https://www.who. int/nutrition/global-target-2025/discussion-paper-extensiontargets-2030.pdf>, accessed April 2021.
- 7 WHO-UNICEF Technical Expert Advisory Group on Nutrition Monitoring, Methodology for Monitoring Progress Towards the Global Nutrition Targets for 2025 - Technical Report, World Health Organization and the United Nations Children's Fund, 2017.

Additional information (pages 24–25)

- 8 de Onis, Mercedes, et al., 'Prevalence thresholds for wasting, overweight and stunting in children under 5 years', Public Health Nutrition, vol. 22, no. 1, 2018, pps. 175-179, https://doi.010.2018/jps.175-179, https://doi.010.2018, https://doi.010.2018, https://doi.010.2018, https://doi.010.2018, https://doi.010.2018, https://doi.010.2018, https://doi.010.2018, https://doi.010.2018</a org/10.1017/S1368980018002434>, accessed April 2021.
- 9 World Health Organization and United Nations Children's Fund. 'WHO/UNICEF discussion paper: The extension of the 2025 maternal, infant and young child nutrition targets to 2030', WHO and UNICEF, Geneva and New York, 2017, https://www.who. int/nutrition/global-target-2025/discussion-paper-extensiontargets-2030.pdf>, accessed April 2021.

JME methodology (page 26-28)

- 10 United Nations Children's Fund, World Health Organization, International Bank for Reconstruction and Development/The World Bank, UNICEF-WHO-World Bank Group Joint Child Malnutrition Estimates, UNICEF, New York; WHO, Geneva; World Bank, Washington, DC, 2012.
- 11 de Onis, Mercedes et al., 'Methodology for estimating regional and global trends of child malnutrition', International Journal of Epidemiology, vol., 33, no. 6, December 2004, pps. 1260-1270, https://doi.org/10.1093/ije/dyh202, accessed April 2021.
- 12 McLain, Alexander, Frongillo, Edward, Feng, Juan and Elaine Borghi, 'Prediction intervals for penalized longitudinal models with multisource summary measures: an application to childhood malnutrition', Statistics in Medicine, vol. 38, no. 6, March 2019, pps. 1002-1012, https://doi.org/10.1002/sim.8024 accessed April 2021.
- 13 World Health Organization and United Nations Children's Fund, Recommendations for data collection, analysis and reporting on anthropometric indicators in children under 5 years old, WHO, Geneva; UNICEF, New York, 2019, https://data.unicef.org/ resources/data-collection-analysis-reporting-on-anthropometricindicators-in-children-under-5/>, accessed April 2021.
- 14 United Nations Children's Fund, World Health Organization and World Bank Group, SDG Indicators 2.2.1 on stunting, 2.2.2a on wasting and 2.2.2b on overweight: Country consultation background document, https://data.unicef.org/resources/jme- 2021-country-consultations/>, accessed April 2021.
- 15 GBD 2019 Risk Factors Collaborators, 'Global burden of 87 risk factors in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019', The Lancet, vol. 396, no. 10258, October 2020, pps. 1223-1249, https://doi. org/10.1016/s0140-6736(20)30752-2> accessed April 2021.

ACKNOWLEDGEMENTS

This publication was prepared by: the Data, Analytics and Innovation Section of the Division of Data, Analytics, Planning and Monitoring, UNICEF New York, together with the Department of Nutrition and Food Safety, WHO Geneva, and the Development Data Group of the World Bank, Washington DC.

Organizations and individuals involved in generating this publication:

UNICEF: Chika Hayashi, Julia Krasevec, Richard Kumapley, Fikrewold Bitew and Vrinda Mehra WHO: Elaine Borghi, Elisa Dominguez, Monica Flores-Urrutia and Giovanna Gatica-Domínguez

World Bank Group: Umar Serajuddin, Emi Suzuki

Editorial: design: Nona Reuter (UNICEF); writing and editing: Julia D'Aloisio (UNICEF)

Special thanks go to Víctor Aguayo (UNICEF), Francesco Branca (WHO) and Mark Hereward (UNICEF).

We also thank Alexander McLain and Edward Frongillo from the University of South Carolina and Gretchen Stevens for their collaboration related to the country model for overweight and stunting estimates.

© United Nations Children's Fund (UNICEF), the World Health Organization, and the International Bank for Reconstruction and Development/The World Bank, 2021. Some rights reserved. This work is available under the CC BY-NC-SA 3.0 IGO licence.

May 2021

Suggested citation: United Nations Children's Fund (UNICEF), World Health Organization, International Bank for Reconstruction and Development/The World Bank. Levels and trends in child malnutrition: key findings of the 2021 edition of the joint child malnutrition estimates. New York: United Nations Children's Fund; 2021. Licence: CC BY-NC-SA 3.0 IGO.

<data.unicef.org/nutrition>: <www.who.int/teams/nutrition-and-food-safety/databases/nutgrowthdb>: <data.worldbank.org>.



Email: data@unicef.org





Email: nutrition@who.int

Email: data@worldbank.org