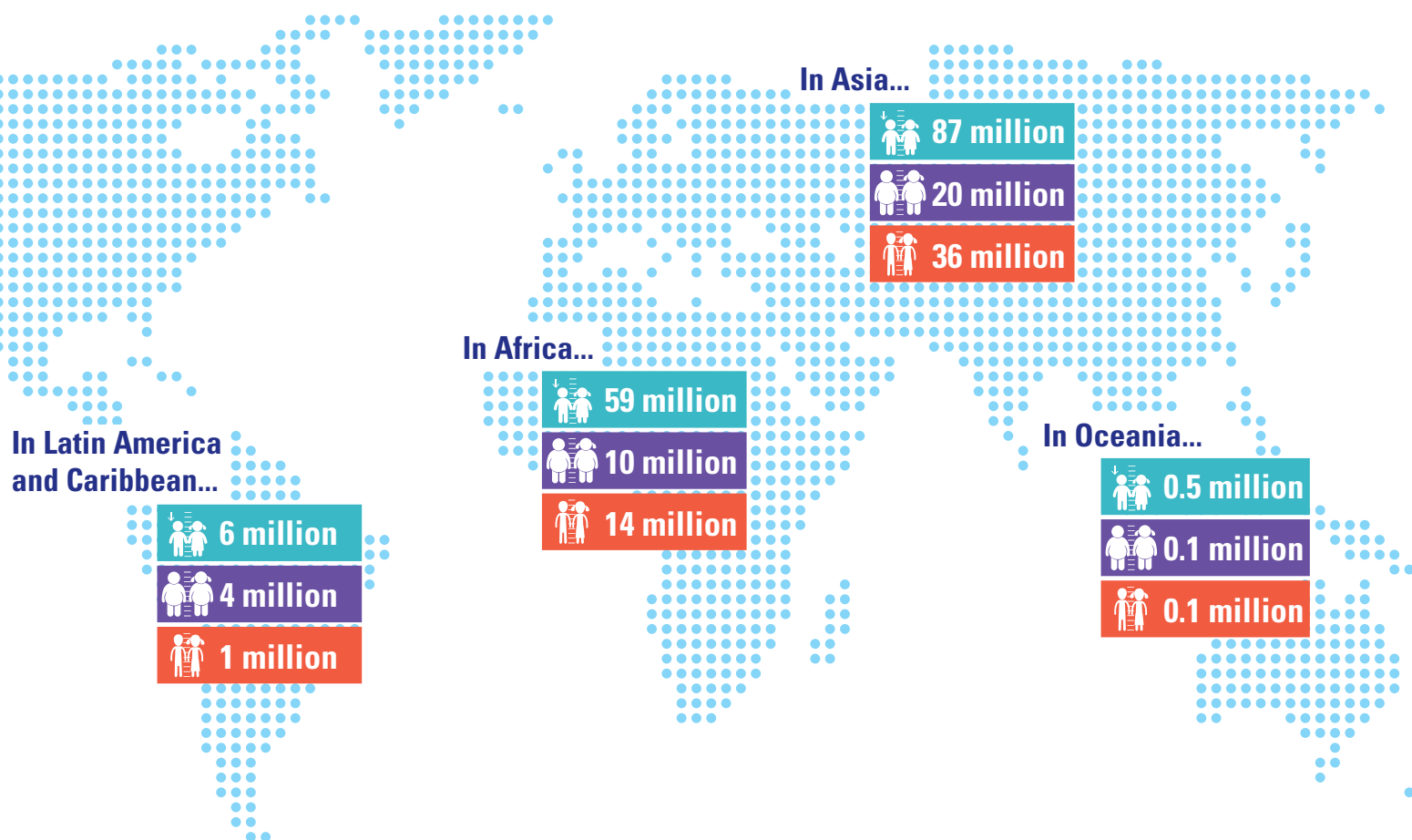


LEVELS AND TRENDS IN CHILD MALNUTRITION

UNICEF / WHO / World Bank Group
Joint Child Malnutrition Estimates

Key findings of the 2017 edition



Worldwide...



155 million
STUNTED

Stunting affected an estimated 22.9 per cent or 154.8 million children under 5 globally in 2016.



41 million
OVERWEIGHT

An estimated 6.0 per cent or 40.6 million children under age 5 around the world were overweight in 2016.



52 million
WASTED

In 2016, wasting continued to threaten the lives of an estimated 7.7 per cent or nearly 52 million children under 5 globally.

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



Good nutrition allows children to grow, develop, learn, play, participate and contribute – while malnutrition robs children of their futures and leaves young lives hanging in the balance.

Stunting is the devastating result of poor nutrition in early childhood. Children suffering from stunting may never grow to their full height and their brains may never develop to their full cognitive potential. Globally, approximately 155 million children under 5 suffer from stunting. 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.

Wasting in children is the life-threatening result of hunger and/or disease. Children suffering from wasting have weakened immunity, are susceptible to long term developmental delays, and face an increased risk of death: they require urgent treatment and care to survive. In 2016, nearly 52 million children under 5 were wasted and 17 million were severely wasted.

There is also an emerging face of malnutrition: childhood overweight and obesity. There are now nearly 41 million overweight children globally, an increase of 11 million since 2000. The emergence of overweight and obesity has been shaped, at least in part, by industry marketing and greater

access to processed foods, along with lower levels of physical activity.

While malnutrition can manifest in multiple ways, the path to prevention is virtually identical: adequate maternal nutrition before and during pregnancy and lactation; optimal breastfeeding in the first two years of life; nutritious and safe foods in early childhood; and a healthy environment including access to basic services and opportunities for physical activity. These key ingredients can deliver a world where children are free from all forms of malnutrition.

Despite this opportunity, the UNICEF, WHO, World Bank global and regional child malnutrition estimates from 1990 to 2017 reveal that we are still far from a world without malnutrition. The joint estimates, published in May 2017, cover indicators of stunting, wasting, severe wasting and overweight among children under 5, and reveal insufficient progress to reach the World Health Assembly targets set for 2025 and the Sustainable Development Goals set for 2030.

Improving children's nutrition requires effective and sustained multi-sectoral nutrition programming over the long term, and many countries are moving in the right direction. Regular data collection is critical to monitor and analyse country, regional and global progress going forward.

Forms of malnutrition* highlighted in this key findings report



Stunting refers to a child who is too short for his or her age. Stunting is the failure to grow both physically and cognitively and is the result of chronic or recurrent malnutrition. The devastating effects of stunting can last a lifetime.



Overweight refers to a child who is too heavy for his or her height. This form of malnutrition results from expending too few calories for the amount consumed from food and drinks and increases the risk of noncommunicable diseases later in life.



Wasting refers to a child who is too thin for his or her height. Wasting, or acute malnutrition, 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 and stunted



Stunted and wasted

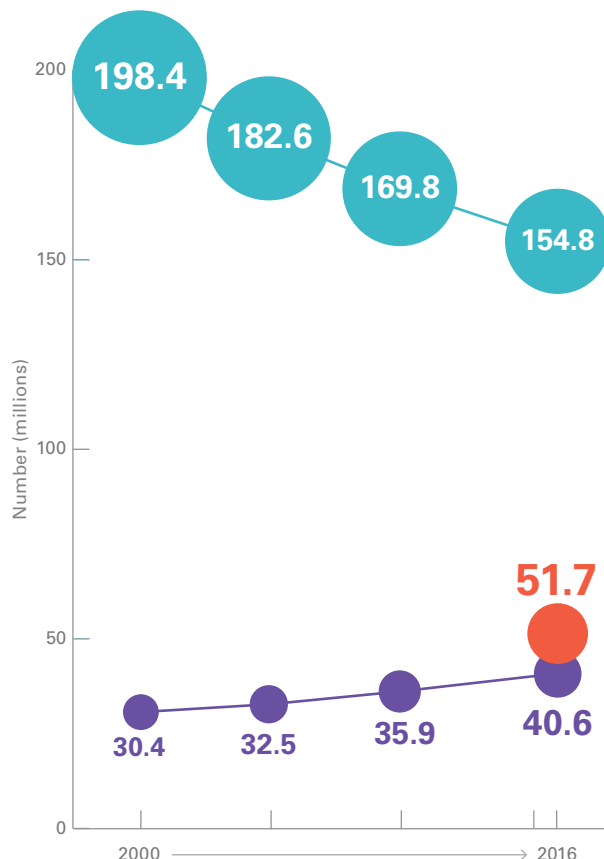
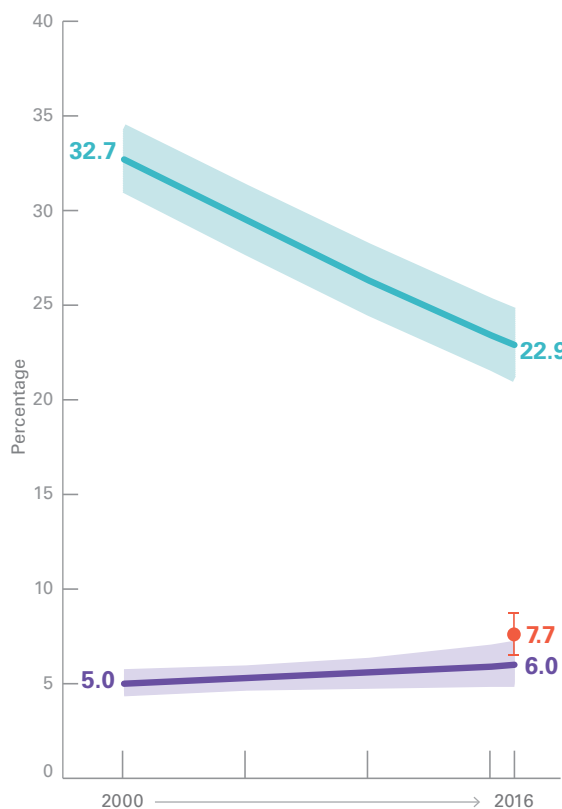
* Some children suffer from more than one form of malnutrition – such as **stunting and overweight** or **stunting and wasting**. There are currently no joint estimates for these combined conditions.

GLOBAL OVERVIEW



Malnutrition rates remain alarming: stunting is declining too slowly while overweight continues to rise

stunting
 overweight
 wasting
 95% confidence interval

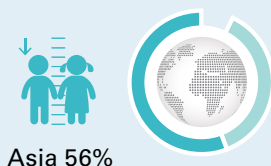


Percentage of stunted, overweight and wasted children under 5, global, 2000–2016

Number (millions) of stunted, overweight and wasted children under 5, global, 2000–2016

Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2017 edition.
See Notes on Data on page 14 on why only one time point is presented for Wasting on the graphs above.

Africa and Asia bear the greatest share of all forms of malnutrition



In 2016, more than half of all **stunted** children under 5 lived in Asia and more than one third lived in Africa.

In 2016, almost half of all **overweight** children under 5 lived in Asia and one quarter lived in Africa.

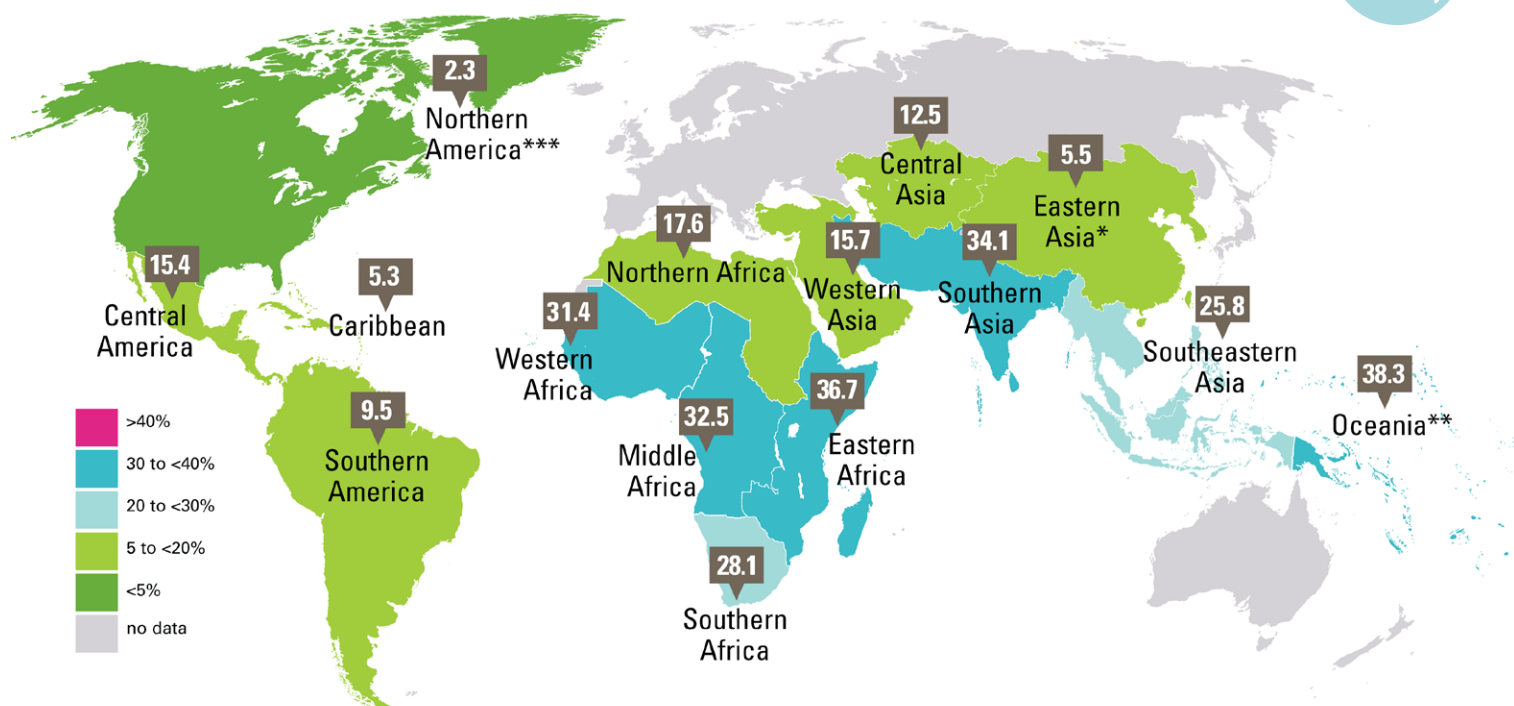
In 2016, more than two thirds of all **wasted** children under 5 lived in Asia and more than one quarter lived in Africa.

Stunting **PREVALENCE**

Five sub-regions have stunting rates that exceed 30 per cent

Percentage of stunted children under 5, by United Nations sub-region, 2016

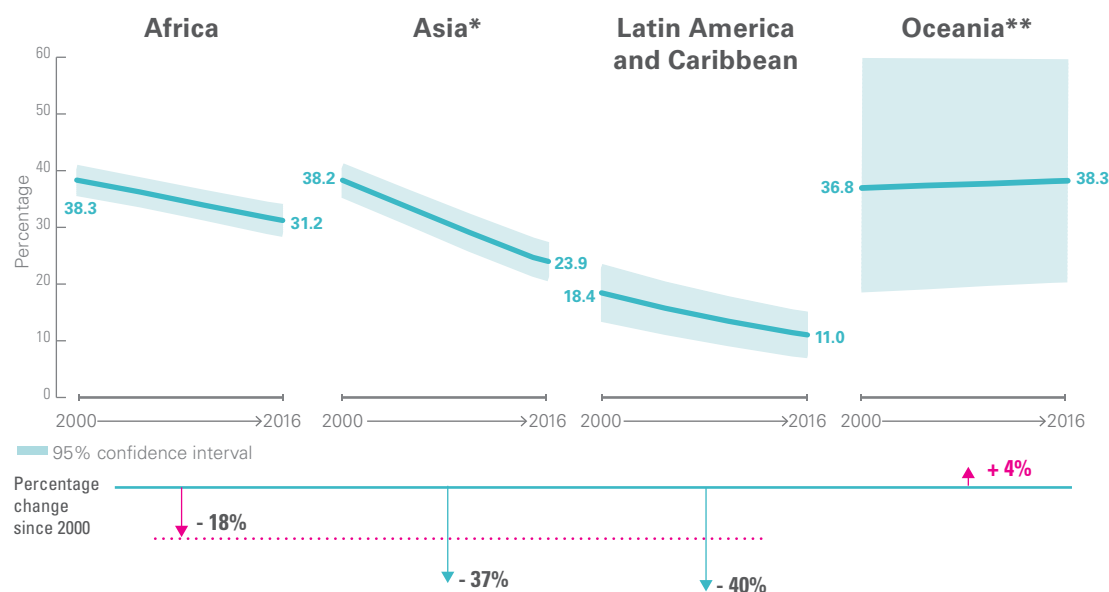
GLOBAL
22.9%



Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2017 edition. Note: *Eastern Asia excluding Japan; **Oceania excluding Australia and New Zealand, ***Northern America regional average based on United States data. 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. The legend contains a category for >40 per cent (pink) but there is no sub-region with a rate this high.

Two regions have experienced slow or no progress in reducing stunting

Percentage of stunted children under 5, by United Nations region, 2000 – 2016

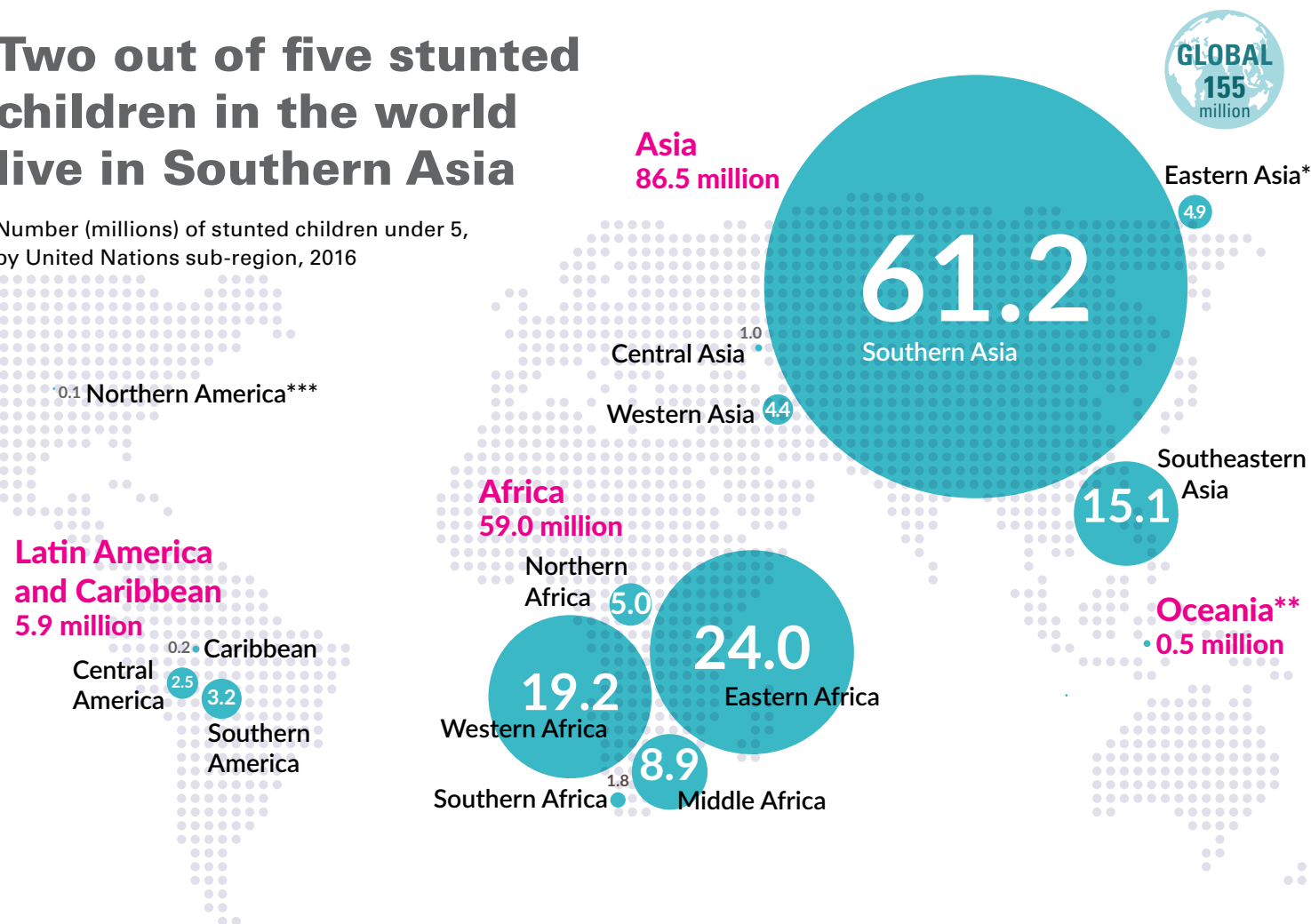


Stunting has declined twice as quickly in Asia and Latin America and the Caribbean as it has in Africa

Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2017 edition. Note: *Asia excluding Japan; **Oceania excluding Australia and New Zealand. 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.

Two out of five stunted children in the world live in Southern Asia

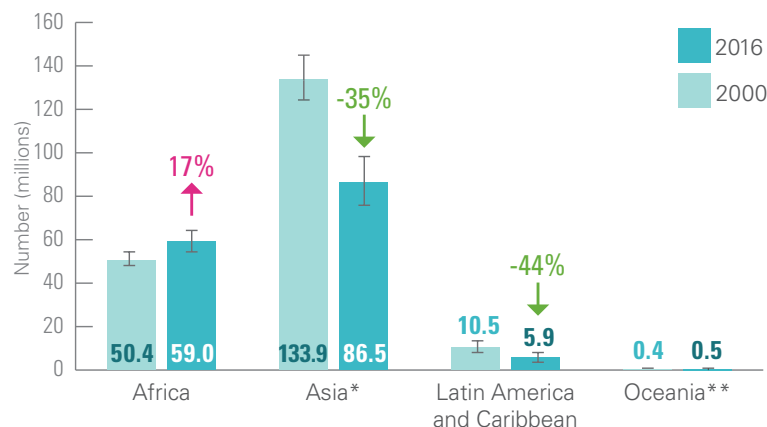
Number (millions) of stunted children under 5, by United Nations sub-region, 2016



Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2017 edition. Note: *Eastern Asia excluding Japan; **Oceania excluding Australia and New Zealand; ***The Northern America sub-regional average based on United States data; there is no estimate available for Developed Regions, the parent region of Northern America.

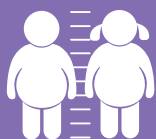
Africa is the only region where the number of stunted children has risen

Number (millions) of stunted children under 5, by United Nations region, 2000 and 2016



Western Africa accounts for half of the stunting increase in Africa; there were 4 million more stunted children in Western Africa in 2016 than in 2000

Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2017 edition. Note: *Asia excluding Japan; **Oceania excluding Australia and New Zealand. 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. Of the five UN Regions, the Developed Region has Insufficient data to produce a regional estimate.

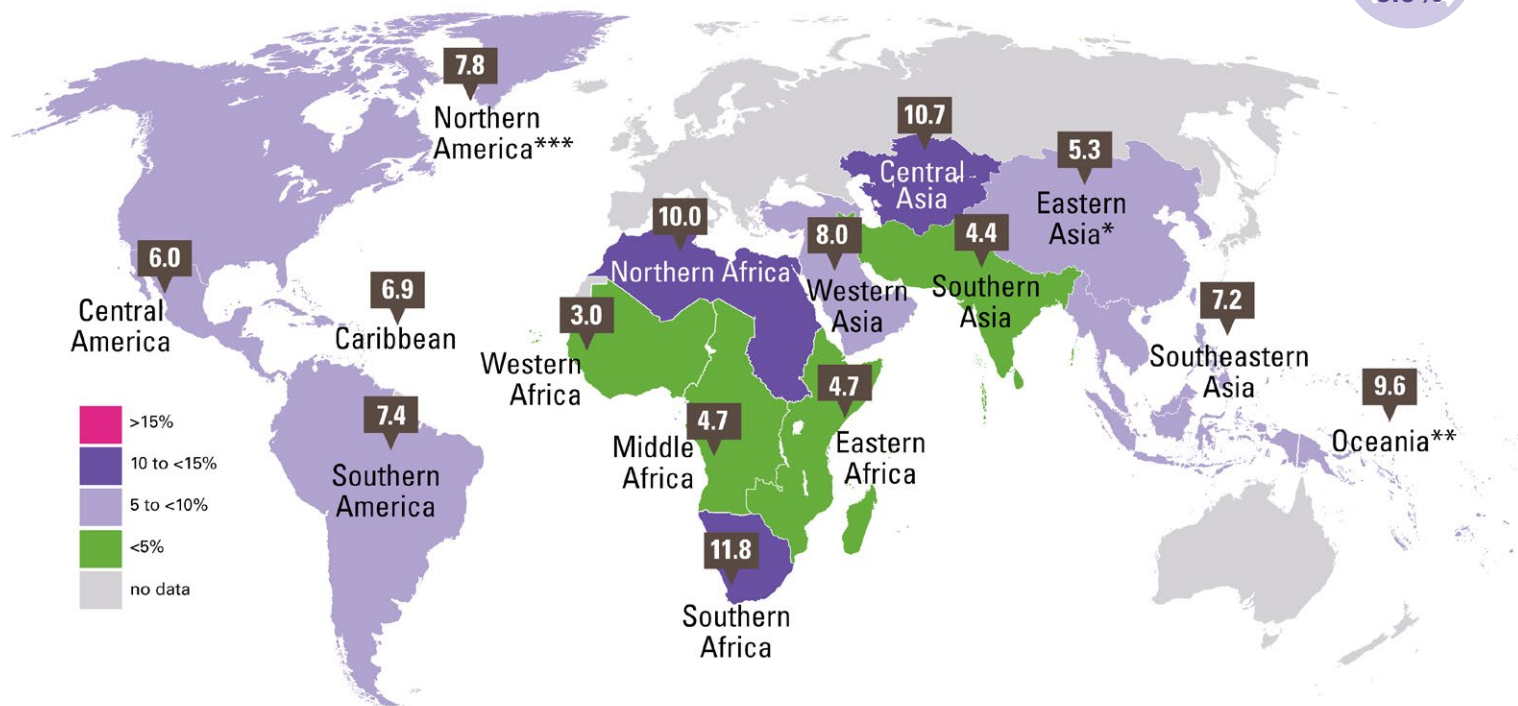


Overweight PREVALENCE

In three sub-regions, at least one in every ten children under five is overweight

Percentage of overweight children under 5, by United Nations sub-region, 2016

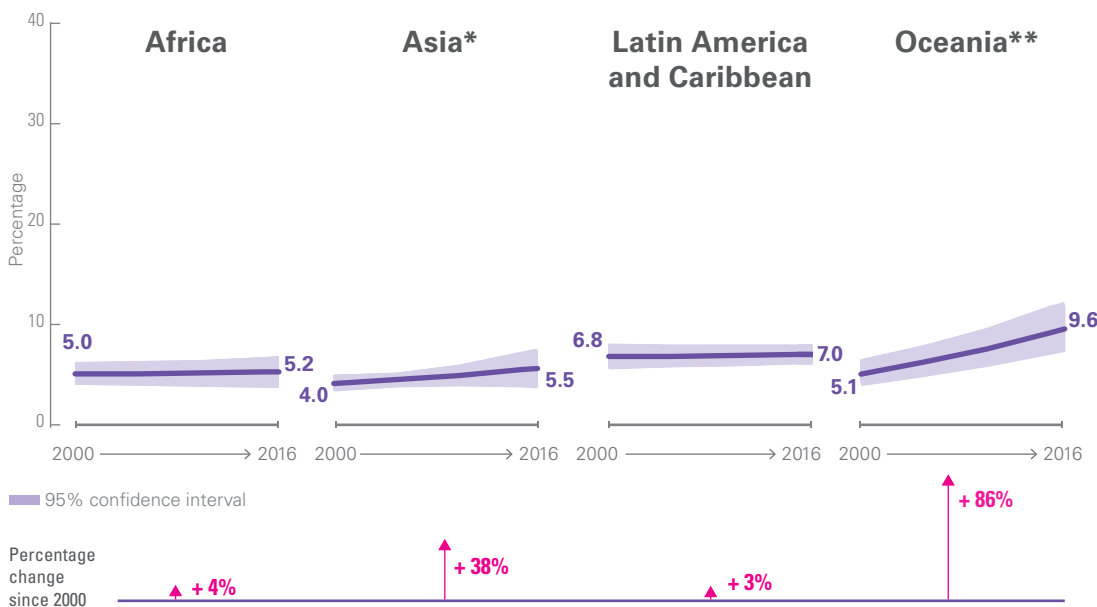
GLOBAL
6.0%



Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2017 edition. Note: *Eastern Asia excluding Japan; **Oceania excluding Australia and New Zealand; ***Northern America regional average based on United States data. 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. The legend contains a category for >15 per cent (pink) but there is no sub-region with a rate this high.

There has been no progress to stem the rate of overweight in more than 15 years

Percentage of overweight children under 5, by United Nations region, 2000 – 2016



In Oceania, the rate of overweight nearly doubled between 2000 and 2016

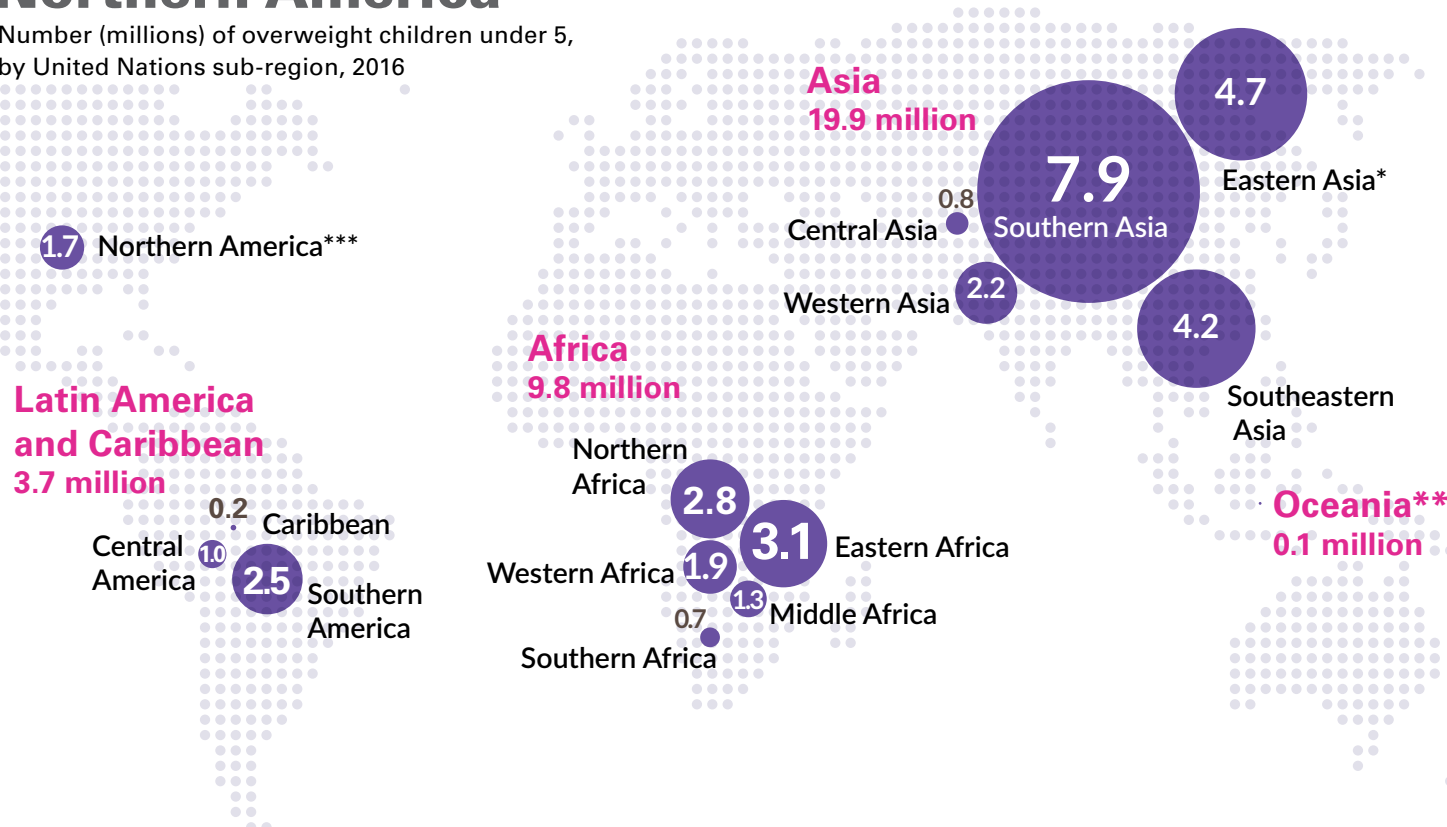


Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2017 edition. Note: *Asia excluding Japan; **Oceania excluding Australia and New Zealand. The values for "percentage change since 2000" are based on calculations using unrounded estimates and therefore might not match values calculated using the rounded estimates presented in this brochure.

The only developed sub-region with overweight data is Northern America

Number (millions) of overweight children under 5, by United Nations sub-region, 2016

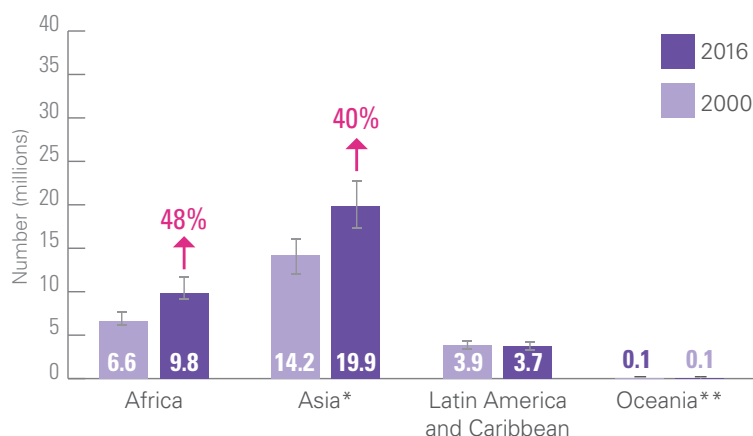
GLOBAL
40.6
million



Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2017 edition. Note: *Eastern Asia excluding Japan; **Oceania excluding Australia and New Zealand, ***The Northern America sub-regional average based on United States data; there is no estimate available for Developed Regions, the parent region of Northern America.

The number of overweight children is on the rise in Africa and Asia

Number (millions) of overweight children under 5, by United Nations region, 2000 and 2016



In Africa, the number of overweight children under 5 has increased by nearly 50 per cent since 2000

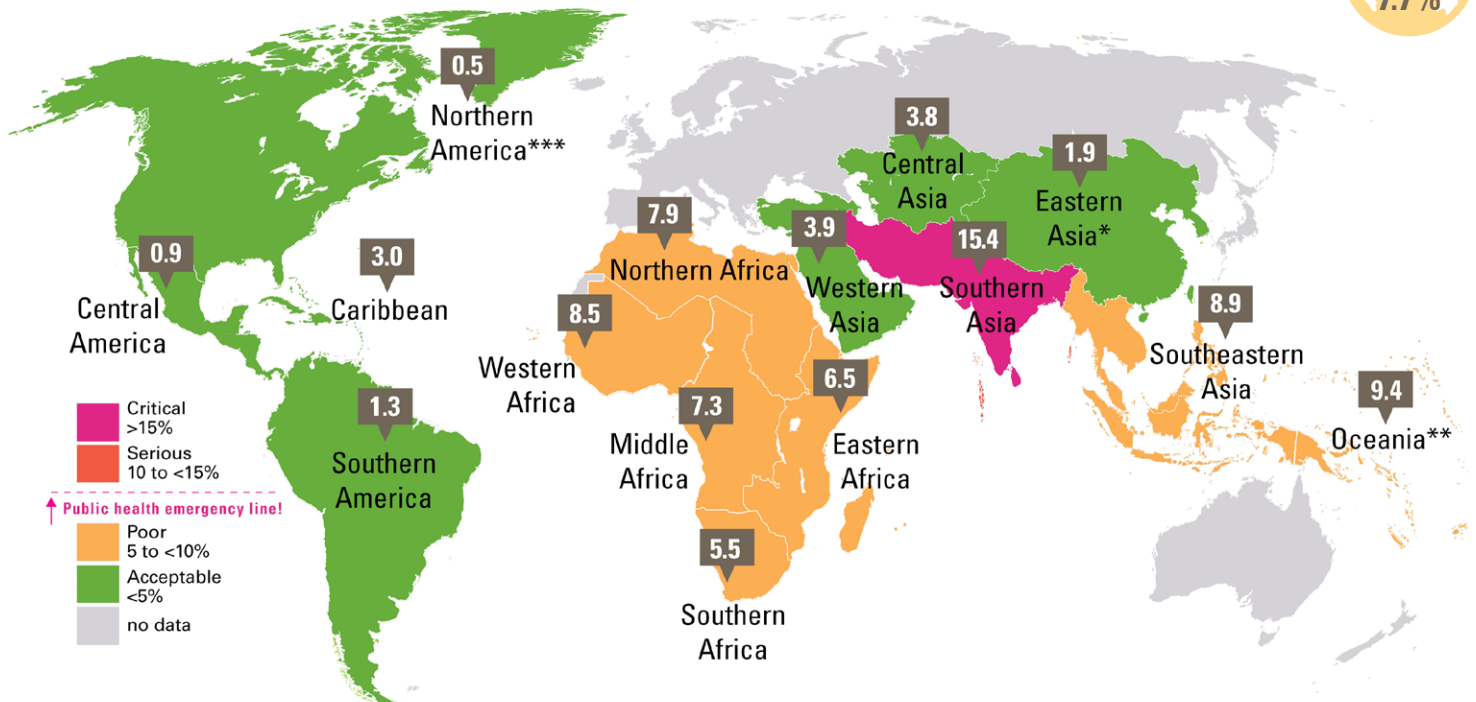
Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2017 edition. Note: *Asia excluding Japan; **Oceania excluding Australia and New Zealand. The values for "percentage change since 2000" are based on calculations using unrounded estimates and therefore might not match values calculated using the rounded estimates presented in this brochure.



Wasting PREVALENCE

Wasting in Southern Asia constitutes a critical public health emergency

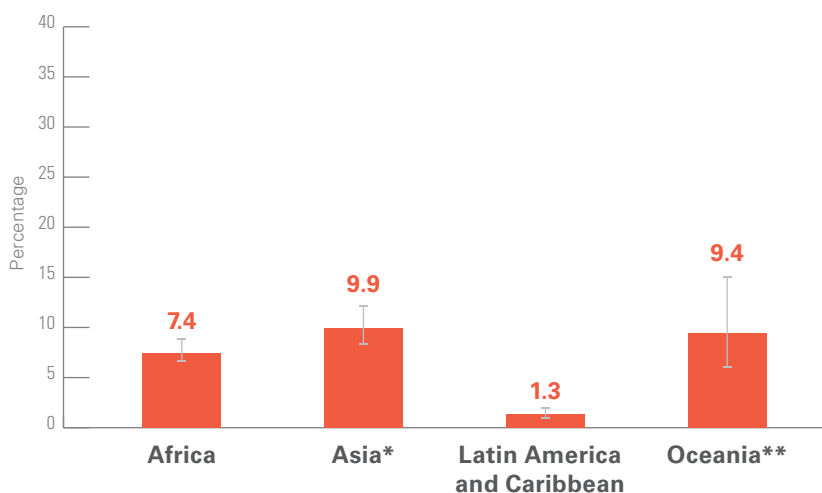
Percentage of wasted children under 5, by United Nations sub-region, 2016



Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2017 edition. Note: *Eastern Asia excluding Japan; **Oceania excluding Australia and New Zealand, ***Northern America regional average based on United States data. 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.

Millions of young lives are in jeopardy around the globe due to wasting

Percentage of wasted children under 5, by United Nations region, 2016



In Asia and Oceania,
wasting is putting nearly
one in ten
children under 5 at
increased risk of death

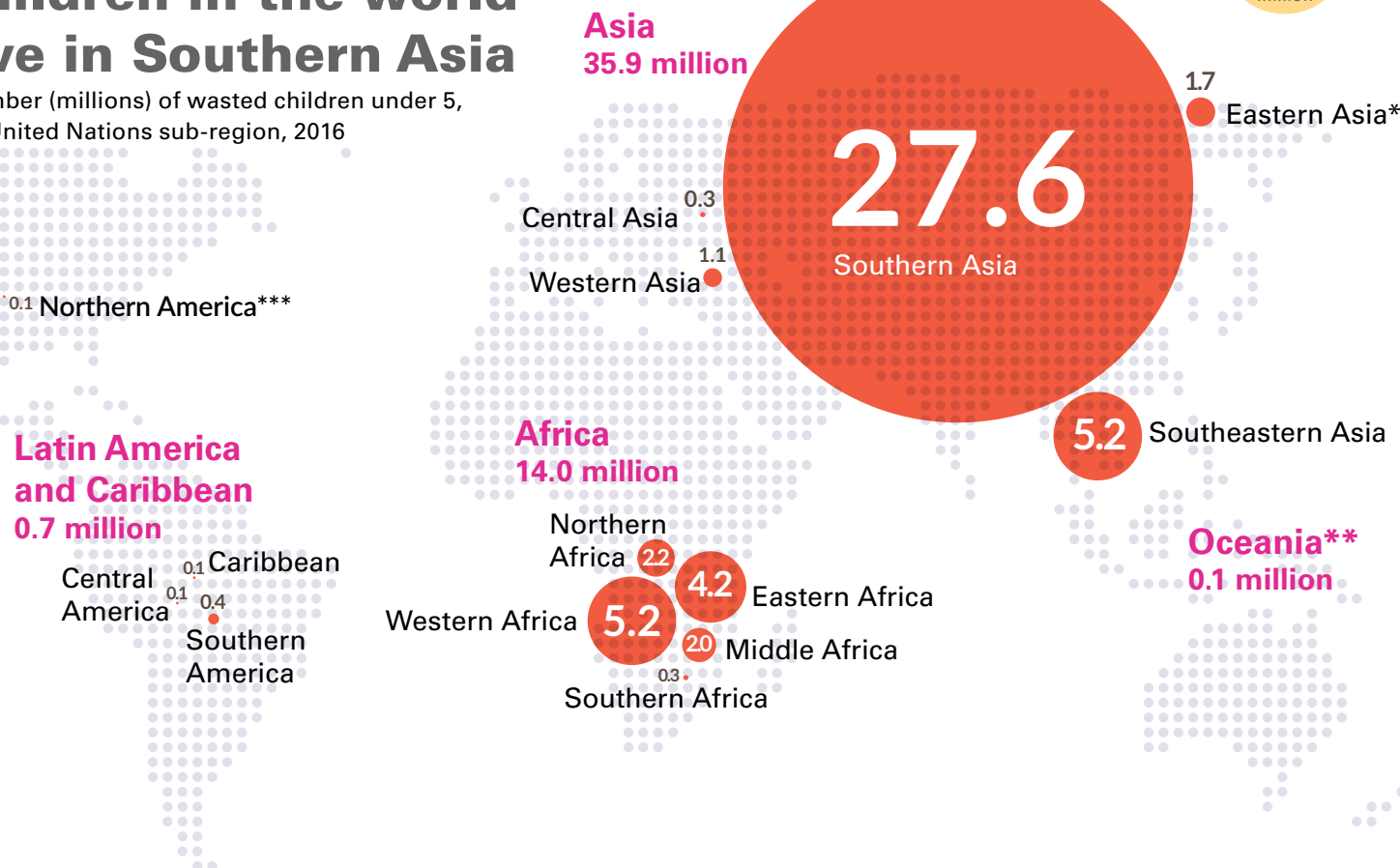
Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2017 edition. Includes 95% confidence interval.
Note: *Asia excluding Japan; **Oceania excluding Australia and New Zealand.

NUMBERS AFFECTED

More than half of all wasted children in the world live in Southern Asia

Number (millions) of wasted children under 5, by United Nations sub-region, 2016

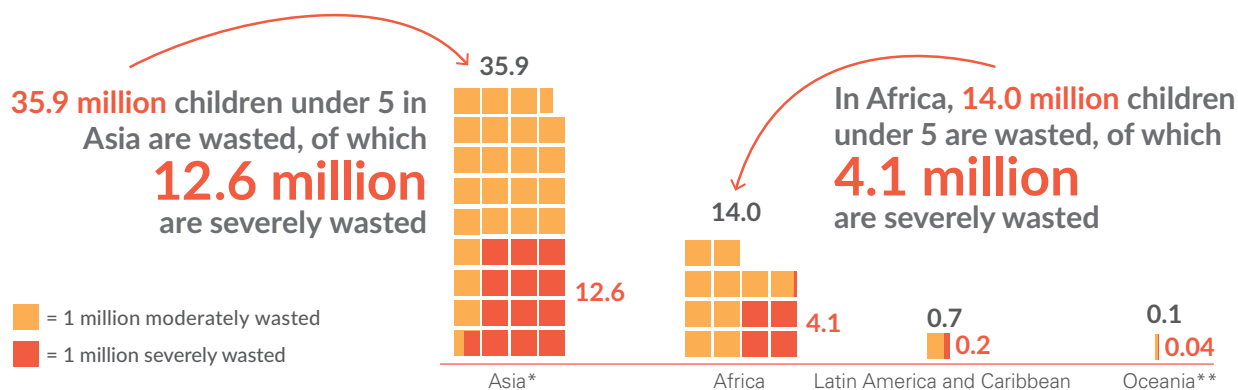
GLOBAL
51.7
million



Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2017 edition. Note: *Eastern Asia excluding Japan; **Oceania excluding Australia and New Zealand, ***The Northern America sub-regional average based on United States data; there is no estimate available for Developed Regions, the parent region of Northern America.

Asia is home to the majority of children under 5 suffering from wasting and severe wasting

Number of wasted and severely wasted children under 5, by United Nations region, 2016



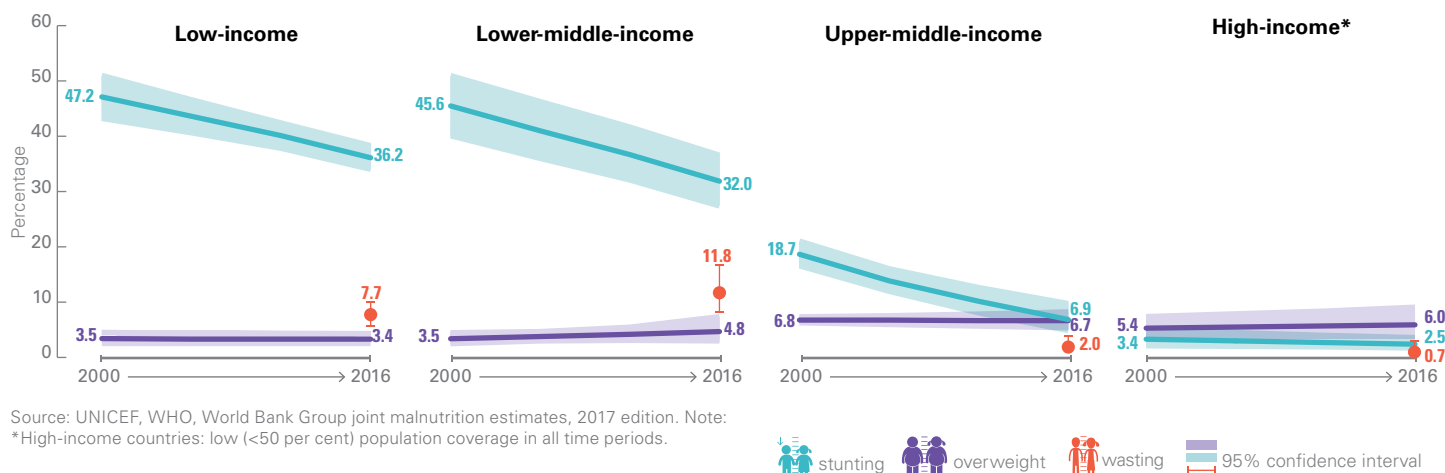
Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2017 edition. Note: *Asia excluding Japan; **Oceania excluding Australia and New Zealand.

COUNTRY INCOME GROUPINGS



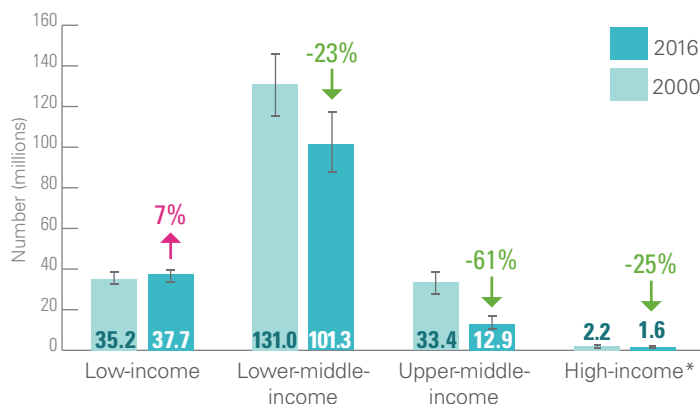
Upper-middle-income countries have more than halved their stunting rates since 2000

Percentage of stunted, overweight and wasted children under 5, by country income classification, 2000 – 2016



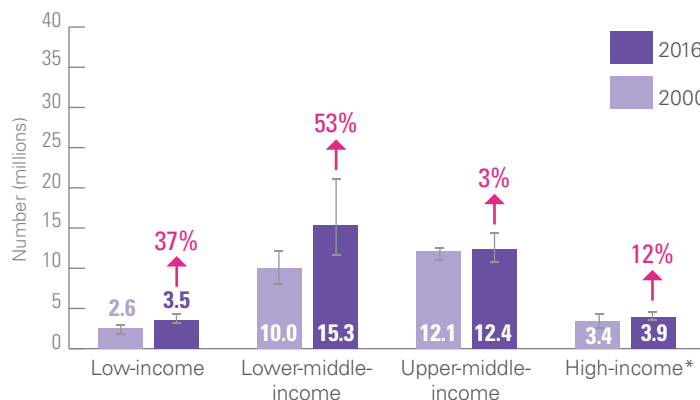
Upper-middle-income countries have the largest relative declines in stunting rates of all income groups

Number of stunted children under 5, by country income classification, 2000 and 2016



The number of overweight children has increased the most in lower-middle-income countries

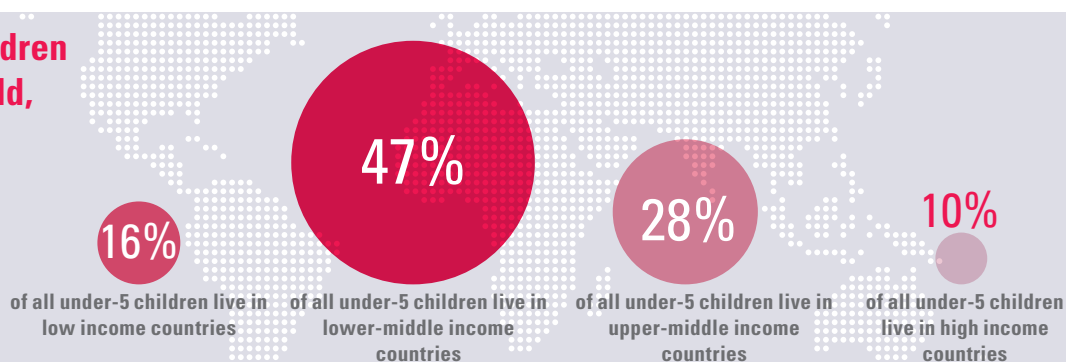
Number of overweight children under 5, by country income classification, 2000 and 2016



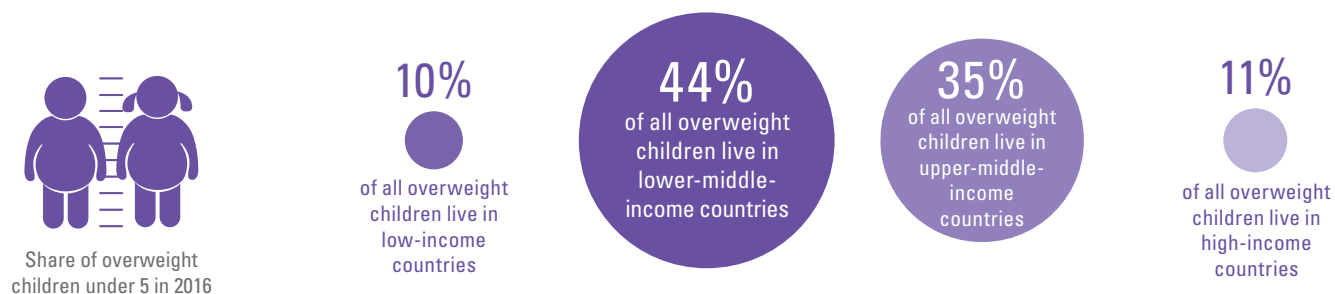
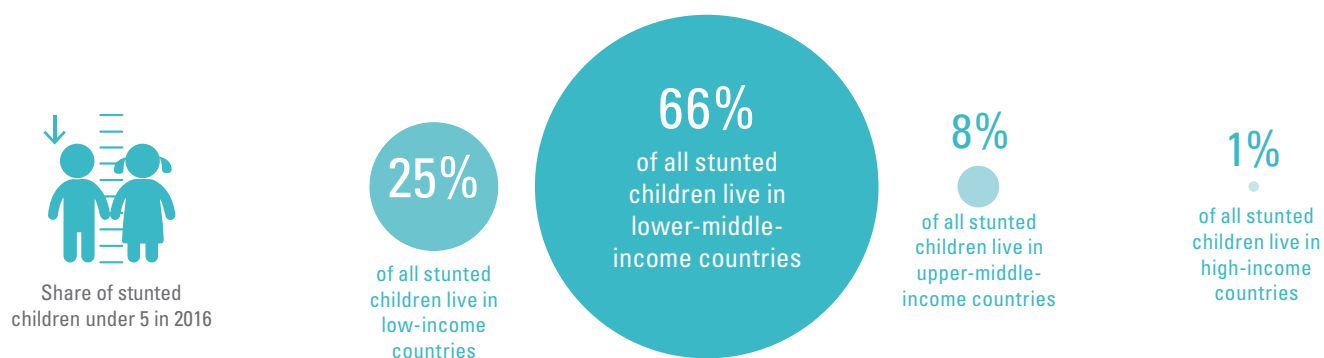
Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2017 edition. Note: *High-income countries: low (<50 per cent) population coverage in all time periods. Based on FY17 World Bank income classification. The values for "percentage change since 2000" are based on calculations using unrounded estimates and therefore might not match values calculated using the rounded estimates presented in this brochure.

While **less than half** of all children under-5 live in lower-middle income countries, **two-thirds** of all stunted children and **three-quarters** of all wasted children live there

Distribution of children under-5 in the world, by country income grouping, 2016



Distribution of children under 5 affected by stunting, overweight and wasting in 2016



PREVALENCE ESTIMATES TABLES*

| | Stunting | | Overweight | | Wasting and Severe Wasting | |
|--|---------------------------------------|---------------------------------------|--|--|--------------------------------------|----------------------|
| | 2000 | 2016 | 2000 | 2016 | 2016 | 2016 |
| | % stunted (moderate and severe) | % stunted (moderate and severe) | % overweight (moderate and severe) | % overweight (moderate and severe) | % wasted (moderate and severe) | % wasted (severe) |
| Global | 32.7 [31.1-34.4] | 22.9 [21.1-24.7] | 5.0 [4.5-5.6] | 6.0 [5.0-7.1] | 7.7 [6.6-8.7] | 2.5 [2.0-3.0] |
| United Nations | | | | | | |
| Developing Regions¹ | 36.1 [34.3-37.9] | 25.0 [23.1-27.0] | 4.6 [4.1-5.0] | 5.5 [4.5-6.6] | 8.4 [7.2-9.5] | 2.8 [2.2-3.4] |
| Africa | 38.3 [36.0-40.5] | 31.2 [28.8-33.6] | 5.0 [4.2-5.9] | 5.2 [3.9-6.5] | 7.4 [6.3-8.5] | 2.2 [1.8-2.6] |
| <i>Eastern Africa</i> | 45.6 [41.1-50.2] | 36.7 [33.1-40.5] | 4.7 [3.8-5.9] | 4.7 [3.8-5.8] | 6.5 [4.7-8.9] | 1.6 [1.2-2.3] |
| <i>Middle Africa</i> | 40.1 [34.6-45.8] | 32.5 [27.7-37.8] | 4.4 [2.9-6.7] | 4.7 [3.4-6.4] | 7.3 [5.6-9.4] | 2.1 [1.5-2.9] |
| <i>Northern Africa</i> | 23.6 [17.5-30.9] | 17.6 [11.6-25.8] | 8.4 [4.9-14.1] | 10.0 [4.3-21.3] | 7.9 [4.4-13.8] | 3.5 [2.0-5.9] |
| <i>Southern Africa</i> | 33.2 [29.1-37.6] | 28.1 [23.9-32.7] | 10.1 [7.5-13.4] | 11.8 [7.2-18.6] | 5.5 [2.7-10.8] | 1.0 [0.5-2.0] |
| <i>Western Africa</i> | 37.3 [34.2-40.4] | 31.4 [26.7-36.5] | 3.2 [2.5-4.1] | 3.0 [2.3-4.0] | 8.5 [7.2-9.9] | 2.3 [1.8-3.1] |
| Asia² | 38.2 [35.6-40.7] | 23.9 [20.9-26.8] | 4.0 [3.5-4.6] | 5.5 [3.8-7.2] | 9.9 [8.0-11.8] | 3.5 [2.5-4.4] |
| <i>Central Asia</i> | 28.0 [21.2-35.8] | 12.5 [9.8-15.9] | 8.8 [5.2-14.4] | 10.7 [6.3-17.5] | 3.8 [3.2-4.4] | 1.4 [1.0-2.0] |
| <i>Eastern Asia²</i> | 19.0 [17.6-20.5] | 5.5 [5.0-6.0] | 6.2 [5.4-7.0] | 5.3 [4.4-6.4] | 1.9 [1.8-2.0] | 0.4 [0.4-0.5] |
| <i>Southern Asia</i> | 49.6 [45.2-54.1] | 34.1 [28.9-39.8] | 2.8 [1.9-4.0] | 4.4 [2.4-8.1] | 15.4 [12.1-19.4] | 5.0 [3.8-6.6] |
| <i>South-eastern Asia</i> | 38.2 [32.3-44.6] | 25.8 [19.6-33.1] | 3.2 [2.6-3.9] | 7.2 [3.6-13.8] | 8.9 [6.4-12.2] | 4.7 [1.9-11.2] |
| <i>Western Asia</i> | 23.3 [16.1-32.4] | 15.7 [8.3-27.7] | 6.7 [4.8-9.2] | 8.0 [3.2-18.4] | 3.9 [1.3-11.2] | 1.1 [0.3-3.7] |
| Latin American and Caribbean | 18.4 [13.8-23] | 11.0 [7.4-14.6] | 6.8 [5.8-7.8] | 7.0 [6.3-7.7] | 1.3 [0.8-1.8] | 0.3 [0.2-0.4] |
| <i>Caribbean</i> | 10.6 [5.8-18.7] | 5.3 [2.6-10.5] | 5.2 [3.9-6.8] | 6.9 [4.0-11.7] | 3.0 [1.8-5.0] | 1.1 [0.7-1.8] |
| <i>Central America</i> | 25.5 [17.1-36.3] | 15.4 [9.4-24.2] | 5.6 [4.5-7.0] | 6.0 [5.6-6.5] | 0.9 [0.7-1.2] | 0.2 [0.1-0.3] |
| <i>South America</i> | 15.8 [11.0-22.3] | 9.5 [5.8-15.1] | 7.5 [6.2-9.1] | 7.4 [6.5-8.5] | 1.3 [0.7-2.3] | 0.2 [0.1-0.4] |
| Oceania³ | 36.8 [18.9-59.2] | 38.3 [20.9-59.2] | 5.1 [4.2-6.3] | 9.6 [7.6-12.0] | 9.4 [5.7-15.0] | 3.3 [1.2-8.6] |
| UNICEF | | | | | | |
| East Asia and Pacific | 24.4 [17.0-33.6] | 9.3 [4.4-18.7] | 5.1 [3.6-7.2] | 5.6 [4.3-7.1] | 3.2 [1.6-6.5] | 0.9 [0.3-2.5] |
| East and Southern Africa | 45.4 [39.7-51.2] | 34.4 [31.7-37.1] | 4.5 [3.3-5.9] | 4.2 [3.1-5.7] | 6.6 [4.8-9.1] | 1.9 [1.3-2.7] |
| Europe and Central Asia⁴ | 13.3 [7.2-23.2] | 6.2 [3.2-11.4] | 7.5 [5.4-10.3] | 12.8 [9.7-16.6] | 1.5 [0.8-2.8] | 0.5 [0.2-1.1] |
| Latin America and Caribbean | 18.4 [13.8-23] | 11.0 [7.4-14.6] | 6.8 [5.8-7.8] | 7.0 [6.3-7.7] | 1.3 [0.8-1.8] | 0.3 [0.2-0.4] |
| Middle East and North Africa | 22.8 [17.2-29.6] | 15.3 [9.5-23.8] | 8.9 [6.4-12.2] | 10.7 [5.9-18.5] | 7.4 [5.0-11.0] | 3.1 [1.8-5.1] |
| North America | 3.0 [-] | 2.3 [-] | 6.7 [6.4-7.0] | 7.8 [7.5-8.2] | 0.5 [-] | 0.0 [-] |
| South Asia | 51.3 [49.7-52.9] | 35.8 [33.3-38.5] | 2.7 [1.8-4.0] | 4.3 [2.4-7.6] | 16.0 [13.4-19.1] | 5.2 [4.0-6.6] |
| West and Central Africa | 41.2 [37.9-44.5] | 33.5 [30.5-36.7] | 4.3 [3.5-5.4] | 3.7 [3.1-4.3] | 9.2 [8.3-10.2] | 3 [2.4-3.7] |
| WHO | | | | | | |
| AFRO | 42.6 [38.8-46.4] | 33.5 [31.1-36.1] | 4.6 [3.8-5.5] | 4.1 [3.4-5.0] | 7.4 [6.1-8.9] | 2.2 [1.7-3.0] |
| AMRO | 11.0 [5.6-20.6] | 6.6 [3.5-12.1] | 6.9 [6.2-7.6] | 7.1 [6.5-7.9] | 0.9 [0.6-1.4] | 0.1 [0.0-0.4] |
| EMRO | 33.7 [24.4-44.5] | 25.1 [16.0-37.1] | 6.1 [4.3-8.6] | 6.7 [4.2-10.5] | 9.1 [7.1-11.6] | 3.8 [2.9-5.0] |
| EURO | - | - | - | - | - | - |
| SEARO | 49.5 [45.7-53.4] | 33.8 [29.1-38.9] | 2.7 [1.7-4.2] | 5.3 [2.6-10.3] | 15.3 [12.0-19.2] | 5.0 [3.7-6.6] |
| WPRO | 20.6 [16.8-24.9] | 7.0 [4.3-11.2] | 5.5 [4.1-7.4] | 5.2 [4.6-6.0] | 2.4 [1.6-3.5] | 0.6 [0.4-0.9] |
| World Bank Income Groups | | | | | | |
| Low income | 47.2 [43.3-51.1] | 36.2 [34.1-38.4] | 3.5 [2.6-4.6] | 3.4 [2.6-4.4] | 7.7 [6.1-9.7] | 2.1 [1.6-2.8] |
| Middle Income | 35.3 [31.8-38.8] | 22.7 [19.7-25.7] | 4.8 [4.1-5.4] | 5.5 [4.1-7.0] | 8.2 [5.4-10.9] | 2.7 [1.9-3.6] |
| <i>Lower-middle income</i> | 45.6 [40.2-51.1] | 32.0 [27.5-36.7] | 3.5 [2.6-4.6] | 4.8 [3.1-7.5] | 11.8 [8.1-16.9] | 4.1 [2.9-5.7] |
| <i>Upper middle income</i> | 18.7 [16.6-21.1] | 6.9 [4.9-9.8] | 6.8 [6.3-7.4] | 6.7 [5.4-8.3] | 2.0 [1.6-2.4] | 0.5 [0.4-0.6] |
| High income⁶ | 3.4 [2.2-5.2] | 2.5 [1.8-3.7] | 5.4 [3.9-7.5] | 6.0 [3.9-9.2] | 0.7 [0.4-1.5] | 0.0 [0.0-0.1] |
| World Bank Regions | | | | | | |
| East Asia and Pacific | 24.5 [19.3-29.7] | 12.2 [8.0-16.3] | 4.8 [4.5-5.2] | 5.9 [3.9-7.9] | 4.1 [2.5-5.7] | 1.7 [0.1-3.3] |
| Europe and Central Asia | - | - | - | - | - | - |
| Latin America and Caribbean | 18.4 [13.8-23] | 11.0 [7.4-14.6] | 6.8 [5.8-7.8] | 7.0 [6.3-7.7] | 1.3 [0.8-1.8] | 0.3 [0.2-0.4] |
| Middle East and North Africa | 22.8 [17.2-29.6] | 15.4 [9.6-23.8] | 8.9 [6.4-12.2] | 10.7 [5.9-18.5] | 7.5 [5.0-11.0] | 3.1 [1.8-5.1] |
| North America⁷ | 3.0 [-] | 2.3 [-] | 6.7 [6.4-7.0] | 7.8 [7.5-8.2] | 0.5 [-] | 0.0 [-] |
| South Asia | 51.3 [49.7-52.9] | 35.8 [33.3-38.5] | 2.7 [1.8-4.0] | 4.3 [2.4-7.5] | 16.0 [13.4-19.1] | 5.2 [4.0-6.6] |
| Sub-Saharan Africa | 43.2 [39.9-46.6] | 34.1 [32.1-36.2] | 4.4 [3.7-5.2] | 3.9 [3.3-4.6] | 7.8 [6.5-9.3] | 2.4 [1.8-3.1] |

Footnotes

1. Only Developing Regions are displayed, while the aggregates of the Developed Regions are not displayed due to insufficient population coverage.

2. Asia excluding Japan; Eastern Asia excluding Japan.

3. Oceania excluding Australia and New Zealand.

4. CEE/CIS is Central Eastern Europe/Commonwealth of Independent States; missing data for Russian Federation.

5. Other refers mainly to high-income countries not included within UNICEF programme regions.

6. High-income countries: low (<50 per cent) population coverage in all time periods.

7. For stunting, wasting and severe wasting estimates, the Northern America regional average based only on United States data; hence confidence intervals are not available.

8. Consecutive low population coverage; interpret with caution.

NUMBER (MILLIONS) AFFECTED TABLES*

| | Stunting | | | Overweight | | | Wasting and Severe Wasting | | |
|---------------------------------------|---|---|--------------|--|--|--------------|--|--------------------------------------|--------------|
| | 2000 | | footnote | 2016 | | footnote | 2016 | | footnote |
| | number (millions) stunted (moderate and severe) | number (millions) stunted (moderate and severe) | | number (millions) overweight (moderate and severe) | number (millions) overweight (moderate and severe) | | number (millions) wasted (moderate and severe) | number (millions) wasted (severe) | |
| Global | 198.4 [188.3-208.4] | 154.8 [142.7-166.9] | | 30.4 [27.1-33.7] | 40.6 [33.5-47.7] | | 51.7 [44.5-58.9] | 16.9 [13.3-20.5] | |
| United Nations | | | | | | | | | |
| Developing Regions¹ | 195.3 [185.5-205.0] | 151.9 [140.0-163.9] | | 24.8 [22.3-27.2] | 33.6 [27.1-40.1] | | 50.7 [43.6-57.9] | 16.9 [13.3-20.5] | |
| Africa | 50.4 [47.4-53.4] | 59.0 [54.5-63.5] | | 6.6 [5.5-7.8] | 9.8 [7.3-12.3] | | 14.0 [11.9-16.1] | 4.1 [3.4-4.9] | |
| <i>Eastern Africa</i> | 21.1 [19.0-23.2] | 24.0 [21.7-26.5] | | 2.2 [1.7-2.7] | 3.1 [2.5-3.8] | | 4.2 [3.1-5.8] | 1.1 [0.8-1.5] | |
| <i>Middle Africa</i> | 7.2 [6.2-8.2] | 8.9 [7.6-10.4] | | 0.8 [0.5-1.2] | 1.3 [0.9-1.8] | | 2.0 [1.5-2.6] | 0.6 [0.4-0.8] | |
| <i>Northern Africa</i> | 4.8 [3.6-6.3] | 5.0 [3.3-7.3] | | 1.7 [1.0-2.9] | 2.8 [1.2-6.1] | | 2.2 [1.3-3.9] | 1.0 [0.6-1.7] | |
| <i>Southern Africa</i> | 2.1 [1.8-2.4] | 1.8 [1.5-2.1] | | 0.6 [0.5-0.9] | 0.7 [0.5-1.2] | | 0.3 [0.2-0.7] | 0.1 [0.0-0.1] | |
| <i>Western Africa</i> | 15.2 [14.0-16.5] | 19.2 [16.4-22.4] | | 1.3 [1.0-1.7] | 1.9 [1.4-2.5] | | 5.2 [4.4-6.1] | 1.4 [1.1-1.9] | |
| Asia² | 133.9 [125.0-142.8] | 86.5 [75.7-97.4] | | 14.2 [12.1-16.3] | 19.9 [13.9-26.0] | | 35.9 [29.1-42.7] | 12.6 [9.0-16.1] | |
| <i>Central Asia</i> | 1.6 [1.2-2.1] | 1.0 [0.8-1.2] | ⁸ | 0.5 [0.3-0.8] | 0.8 [0.5-1.3] | ⁸ | 0.3 [0.2-0.3] | 0.1 [0.1-0.2] | ⁸ |
| <i>Eastern Asia²</i> | 16.5 [15.3-17.8] | 4.9 [4.5-5.4] | | 5.4 [4.7-6.1] | 4.7 [3.9-5.7] | | 1.7 [1.6-1.8] | 0.4 [0.4-0.4] | |
| <i>Southern Asia</i> | 89.4 [81.5-97.4] | 61.2 [51.8-71.3] | | 5.0 [3.5-7.2] | 7.9 [4.2-14.6] | ⁸ | 27.6 [21.7-34.8] | 9.0 [6.8-11.9] | |
| <i>South-eastern Asia</i> | 20.9 [17.7-24.4] | 15.1 [11.5-19.3] | | 1.7 [1.4-2.1] | 4.2 [2.1-8.1] | | 5.2 [3.7-7.1] | 2.7 [1.1-6.6] | |
| <i>Western Asia</i> | 5.4 [3.7-7.5] | 4.4 [2.3-7.7] | | 1.5 [1.1-2.1] | 2.2 [0.9-5.2] | | 1.1 [0.4-3.1] | 0.3 [0.1-1.0] | |
| Latin American and Caribbean | 10.5 [7.9-13.1] | 5.9 [4.0-7.8] | | 3.9 [3.3-4.4] | 3.7 [3.4-4.1] | | 0.7 [0.4-0.9] | 0.2 [0.1-0.2] | |
| <i>Caribbean</i> | 0.4 [0.2-0.7] | 0.2 [0.1-0.4] | ⁸ | 0.2 [0.2-0.3] | 0.2 [0.1-0.4] | ⁸ | 0.1 [0.1-0.2] | 0.0 [0.0-0.1] | ⁸ |
| <i>Central America</i> | 4.4 [2.9-6.2] | 2.5 [1.5-4.0] | | 1.0 [0.8-1.2] | 1.0 [0.9-1.1] | | 0.1 [0.1-0.2] | 0.0 [0.0-0.1] | |
| <i>South America</i> | 5.7 [4.0-8.1] | 3.2 [2.0-5.1] | ⁸ | 2.7 [2.2-3.3] | 2.5 [2.2-2.9] | ⁸ | 0.4 [0.2-0.8] | 0.1 [0.0-0.1] | ⁸ |
| Oceania³ | 0.4 [0.2-0.7] | 0.5 [0.3-0.8] | | 0.1 [0.0-0.1] | 0.1 [0.1-0.2] | | 0.1 [0.1-0.2] | 0.0 [0.0-0.1] | |
| UNICEF | | | | | | | | | |
| East Asia and Pacific | 36.2 [25.2-49.9] | 14.4 [6.8-28.9] | | 7.6 [5.4-10.7] | 8.6 [6.7-11.0] | | 4.8 [2.3-9.6] | 1.4 [0.5-3.9] | |
| East and Southern Africa | 27.4 [23.9-30.9] | 28.4 [26.2-30.7] | | 2.7 [2.0-3.6] | 3.5 [2.5-4.7] | | 3.2 [2.3-4.4] | 1.5 [1.1-2.2] | |
| Europe and Central Asia ⁴ | 6.7 [3.6-11.7] | 3.4 [1.8-6.4] | ⁶ | 3.8 [2.7-5.2] | 7.1 [5.4-9.3] | ⁶ | 0.8 [0.4-1.5] | 0.3 [0.1-0.6] | ⁶ |
| Latin America and Caribbean | 10.5 [7.9-13.1] | 5.9 [4.0-7.8] | | 3.9 [3.3-4.4] | 3.7 [3.4-4.1] | | 0.7 [0.4-0.9] | 0.2 [0.1-0.2] | |
| Middle East and North Africa | 8.5 [6.4-11.0] | 7.5 [4.6-11.6] | | 3.3 [2.4-4.5] | 5.2 [2.9-9.0] | | 3.4 [2.3-5.1] | 1.5 [0.9-2.5] | |
| North America | 0.6 [-] | 0.5 [-] | | 1.4 [-] | 1.7 [-] | | 0.1 [-] | 0.0 [-] | |
| South Asia | 89.2 [86.4-92.0] | 61.9 [57.5-66.4] | | 4.7 [3.1-7.0] | 7.4 [4.1-13.1] | ⁶ | 27.9 [23.2-33.2] | 8.9 [7.0-11.4] | |
| West and Central Africa | 22.9 [21.1-24.8] | 28.1 [25.6-30.8] | | 2.4 [1.9-3.0] | 3.1 [2.6-3.6] | | 9.8 [8.9-10.9] | 2.5 [2.0-3.1] | |
| WHO | | | | | | | | | |
| AFRO | 48.0 [43.7-52.3] | 54.6 [50.6-58.8] | | 5.2 [4.3-6.2] | 6.7 [5.5-8.1] | | 12.1 [9.9-14.6] | 3.6 [2.7-4.9] | |
| AMRO | 8.6 [4.4-16.0] | 5.0 [2.7-9.0] | | 5.3 [4.9-5.9] | 5.4 [4.9-5.9] | | 0.7 [0.4-1.0] | 0.1 [0.0-0.3] | |
| EMRO | 21.3 [15.5-28.2] | 20.2 [12.9-29.9] | | 3.9 [2.7-5.4] | 5.4 [3.4-8.5] | | 7.3 [5.7-9.3] | 3.1 [2.3-4.1] | |
| EURO | - | - | | - | - | | - | - | |
| SEARO | 90.7 [83.6-97.8] | 60.3 [51.9-69.4] | | 4.9 [3.1-7.6] | 9.4 [4.7-18.4] | ⁸ | 27.2 [21.4-34.3] | 8.9 [6.7-11.8] | |
| WPRO | 23.8 [19.4-28.8] | 8.4 [5.2-13.4] | | 6.4 [4.7-8.6] | 6.3 [5.5-7.1] | | 2.8 [1.9-4.2] | 0.7 [0.4-1.0] | |
| World Bank Income Groups | | | | | | | | | |
| Low income | 35.2 [32.3-38.1] | 37.7 [35.5-40.0] | | 2.6 [2.0-3.4] | 3.5 [2.7-4.6] | | 8.0 [6.4-10.1] | 2.2 [1.7-2.9] | |
| Middle Income | 164.3 [148.1-180.6] | 114.2 [99.0-129.4] | | 22.1 [19.1-25.2] | 27.7 [20.4-35.1] | | 41.2 [27.4-54.9] | 13.8 [9.3-18.2] | |
| <i>Lower-middle income</i> | 131.0 [115.4-146.8] | 101.3 [87.3-116.4] | | 10.0 [7.5-13.3] | 15.3 [9.8-23.7] | | 37.5 [25.8-53.6] | 12.9 [9.1-18.1] | |
| <i>Upper middle income</i> | 33.4 [29.6-37.6] | 12.9 [9.1-18.1] | | 12.1 [11.2-13.1] | 12.4 [9.9-15.5] | | 3.6 [3.0-4.5] | 0.9 [0.7-1.1] | |
| High income ⁶ | 2.2 [1.4-3.3] | 1.6 [1.1-2.3] | ⁸ | 3.4 [2.5-4.8] | 3.9 [2.5-5.9] | ⁸ | 0.5 [0.2-1.0] | 0.0 [0.0-0.1] | ⁸ |
| World Bank Regions | | | | | | | | | |
| East Asia and Pacific | 36.4 [28.7-44.1] | 18.8 [12.4-25.3] | | 7.2 [6.7-7.7] | 9.2 [6.0-12.3] | | 6.4 [3.9-8.8] | 2.6 [0.2-5.1] | |
| Europe and Central Asia | - | - | | - | - | | - | - | |
| Latin America and Caribbean | 10.5 [7.9-13.1] | 5.9 [4.0-7.8] | | 3.9 [3.3-4.4] | 3.7 [3.4-4.1] | | 0.7 [0.4-0.9] | 0.2 [0.1-0.2] | |
| Middle East and North Africa | 8.5 [6.4-11.1] | 7.5 [4.7-11.6] | | 3.3 [2.4-4.6] | 5.2 [2.9-9.0] | | 3.6 [2.4-5.4] | 1.5 [0.9-2.5] | |
| North America ⁷ | 0.6 | 0.5 | | 1.4 [1.3-1.5] | 1.7 [1.6-1.8] | | 0.1 | 0.0 | |
| South Asia | 89.2 [86.4-92.0] | 61.9 [57.5-66.4] | | 4.7 [3.1-7.0] | 7.4 [4.1-13.0] | ⁸ | 27.7 [23.1-33.0] | 8.9 [7.0-11.4] | |
| Sub-Saharan Africa | 50.1 [46.3-54.0] | 56.8 [53.5-60.2] | | 5.1 [4.3-6.1] | 6.4 [5.4-7.7] | | 13.0 [10.8-15.5] | 4.0 [3.0-5.2] | |

*Complete data series for stunting and overweight (1990, 1995, 2000, 2010, 2011, 2012, 2013, 2014, 2015 and 2016) and the latest year for wasting (2016) estimates of prevalence and numbers affected can be found at the websites below for global as well as for the following country groupings: (i) United Nations regions and sub-regions; (ii) UNICEF; (iii) WHO; (iv) World Bank Income; (v) World Bank regions; (vi) SDG regions; and (vii) MDG regions. These websites also contain a file with the regional or income grouping compositions:

UNICEF <cuni.cf/jmedashboard> WHO <www.who.int/nutgrowthdb/estimates> World Bank Group <data.worldbank.org/child-malnutrition>

NOTES ON THE DATA AND METHODOLOGY

Strengths and weaknesses of malnutrition data

Prevalence estimates for stunting and overweight are relatively robust. It is therefore possible to track global and regional changes in these two conditions over time.

Wasting and severe wasting are acute conditions that can change frequently and rapidly. This makes it difficult to generate reliable trends over time, and as such, this report provides only most recent global and regional estimates.

The global and regional estimates presented here are based on data from national household surveys. These data are collected infrequently and measure malnutrition at one point in time (e.g. during several months of field work), making it difficult to capture the rapid fluctuations in wasting that can occur over the course of a given year. Incidence data (i.e. the number of new cases that occur during the calendar year) would allow for better tracking of changes over time; however, these data currently do not exist.

The analysis methods have remained unchanged from the 2012 report, except for some minor refinements detailed below:

1. Year assigned to each survey

When data collection begins in one calendar year and continues into the next, the survey year assigned is the one in which most of the fieldwork took place. For example, if a survey was conducted between 1 September 2009 and 28 February 2010, the year 2009 would be assigned, since the majority of data collection took place in that year (i.e., four months in 2009 versus two months in 2010). This method has been used since the 2013 edition (prior to that, the latter year was used by default – e.g., 2010 in the example above).

2. Final reports only

As of the 2014 edition, the dataset used to generate the global and regional estimates is based only on final survey results. Preliminary

survey results are no longer included in the dataset due to situations where they were cancelled or significantly changed before release.

3. Updated data sources

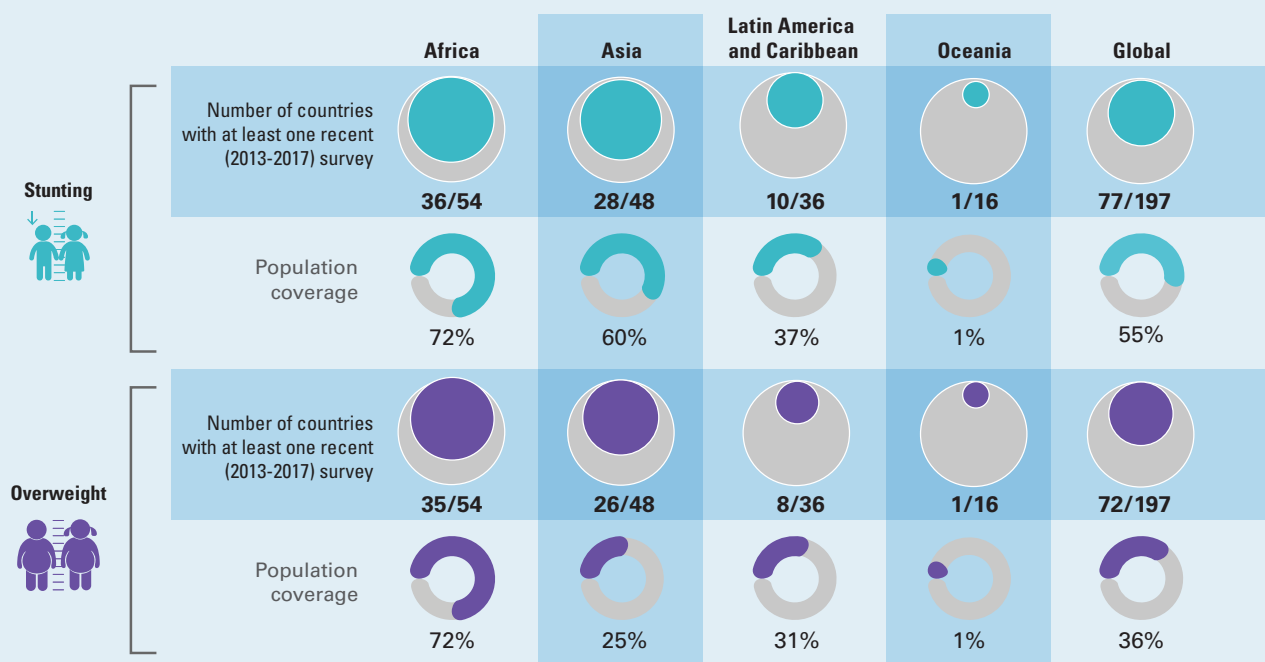
- The updated joint dataset includes:
 - 806 nationally representative surveys;
 - data from 150 countries and territories, representing more than 90 per cent of all children under 5 globally (population coverage varies by regions and periods). The majority of data available are from low- and middle-income countries – more efforts are needed to generate data from high-income countries.
- The under 5 population estimates were based on *The United Nations World Population Prospects, 2015 Revision*. These were used as weighting factors for each country survey to derive the regional and global prevalence estimates and calculate the numbers affected.
- Regional and country income classifications were based on FY17 World Bank income classification.

4. Footnotes on population coverage

As started in the 2014 edition, a separate exercise was conducted to assess population coverage. This was important in order to alert the reader, via footnotes, to instances where the data should be interpreted with caution due to low population coverage (defined as less than 50 per cent). A conservative method was applied looking at available data within mutually exclusive five-year periods around the projected years. Population coverage was calculated as:

$$\frac{\text{the sum of country five-year average populations for which surveys are available in the dataset}}{\text{the total of country five-year average population for all countries in the region}}$$

Population coverage for the most recent period (2013-2017), by UN regions



Figures for wasting are the same as for stunting and not presented.

ONLINE MATERIALS

This key findings report of the 2017 edition of the Joint Malnutrition Estimates summarizes the new numbers and main messages for official United Nations data on child malnutrition. The following materials can be downloaded at the links below for the three organizations:

- the latest country-level joint malnutrition dataset, a time series of all country estimates that were used to generate the global and regional estimates;
- the global and regional estimates database from 1990-2016 by various regional groupings (e.g. United Nations, UNICEF, WHO, etc., regional groupings);

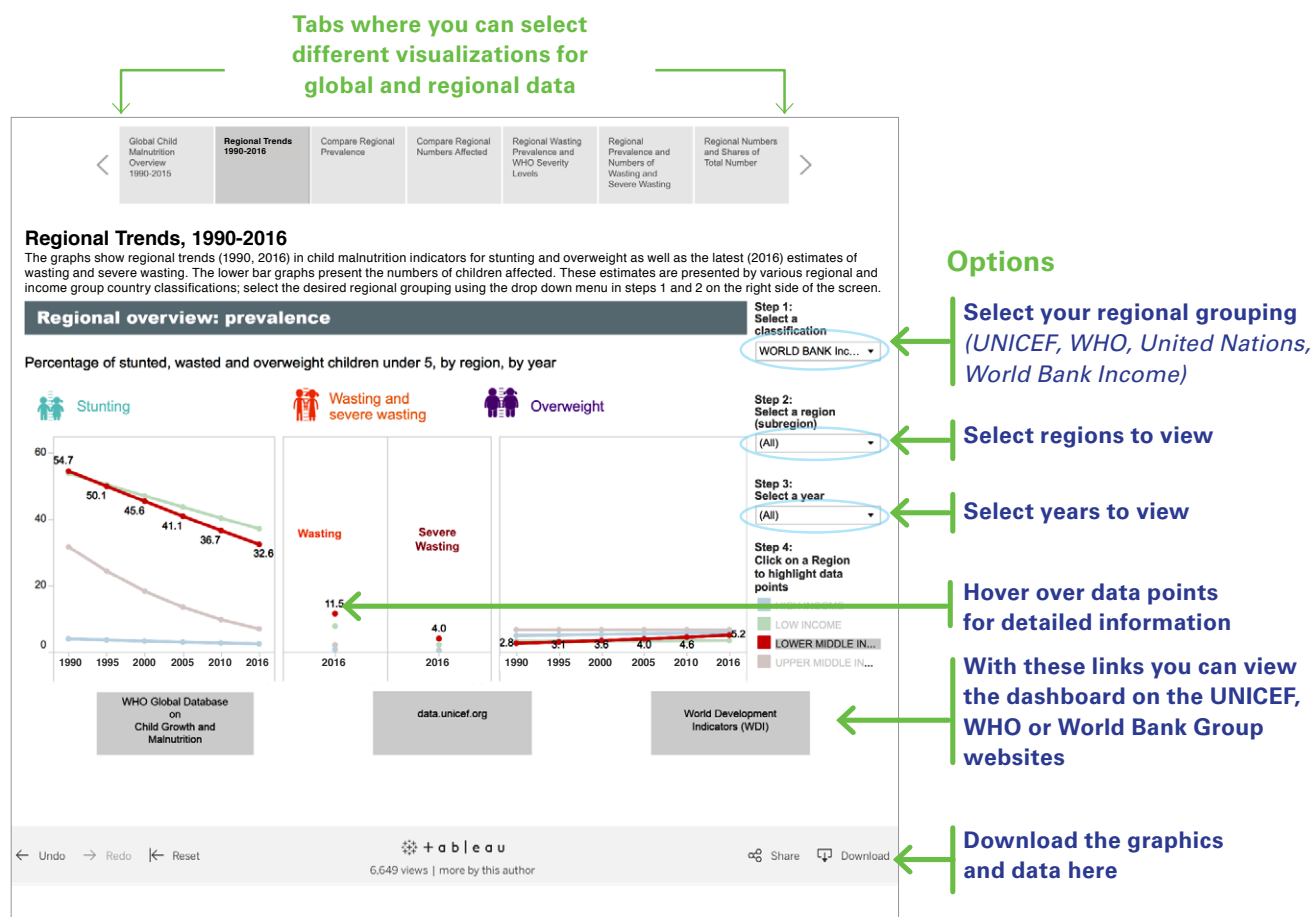
- interactive dashboards, which allow users to visualize and export the global and regional estimates for a number of regional groupings including:

[UNICEF <uni.cf/jmedashboard>](http://uni.cf/jmedashboard)

[WHO <www.who.int/nutgrowthdb/estimates>](http://www.who.int/nutgrowthdb/estimates)

[World Bank Group <data.worldbank.org/child-malnutrition>](http://data.worldbank.org/child-malnutrition)

DASHBOARD OVERVIEW



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