

# Levels and trends in child malnutrition

UNICEF – WHO – World Bank Group joint child malnutrition estimates

Key findings of the 2015 edition



The data in this 2015 edition supersedes all historical data previously published by UNICEF, WHO and World Bank Group.

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**The ultimate goal:**  
for all children to be  
free of malnutrition in  
all its forms.



Stunting rates are dropping but 159 million children around the world are still affected.



There are 41 million overweight children in the world; about 10 million more than there were 2 decades ago.



Wasting still threatens the lives of 50 million children across the globe.

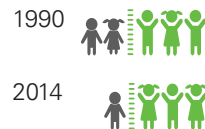
# Global overview

## Stunting

The global trend in **stunting** prevalence and numbers of children affected is **decreasing...**



Between 1990 and 2014, stunting prevalence **declined** from **39.6** per cent to **23.8** per cent...



- 96M



...and numbers affected **declined** from **255 million** to **159 million**.

...but not fast enough.

## Overweight

The global trend in **overweight** prevalence and numbers of children affected is **rising.**



Overweight prevalence has **gone up** slightly between 1990 and 2014, from **4.8** per cent to **6.1** per cent...



+ 10M



...and numbers affected have **risen** from **31 million** to **41 million**.

## Wasting

In 2014, the global **wasting** rate was **7.5 per cent.**



Approximately 1 out of every 13 children in the world was wasted in 2014.



Nearly a third of all wasted children were severely wasted, with a global prevalence in 2014 of **2.4** per cent.

50M



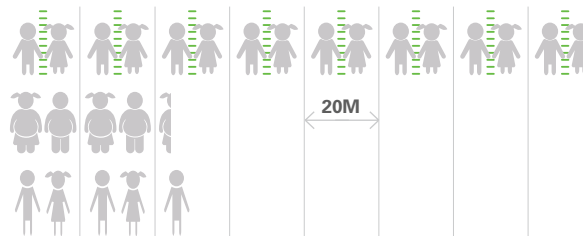
Globally, **50 million** children under 5 were wasted, of which **16 million** were **severely wasted** in 2014.

**In 2014, there were 667 million children under 5 in the world. An estimated:**

**159 million** were stunted

**41 million** were overweight

**50 million** were wasted



(each pair of children represents 20 million children)

## Notes on the updated joint malnutrition estimates

In September 2015, UNICEF, WHO and World Bank Group released updated joint child malnutrition estimates for the 1990 to 2014 period, which represent the most recent global and regional figures after adding 62 new surveys from 57 countries to the joint dataset. This key findings report summarizes the new numbers, main messages and identifies some minor changes in methodology.

Additional materials include: (i) the latest country-level joint malnutrition dataset; and, (ii) interactive dashboards, which allow users to visualize and export the global and regional estimates.



**UNICEF**  
<[uni.cf/jmedashboard2015](http://uni.cf/jmedashboard2015)>

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

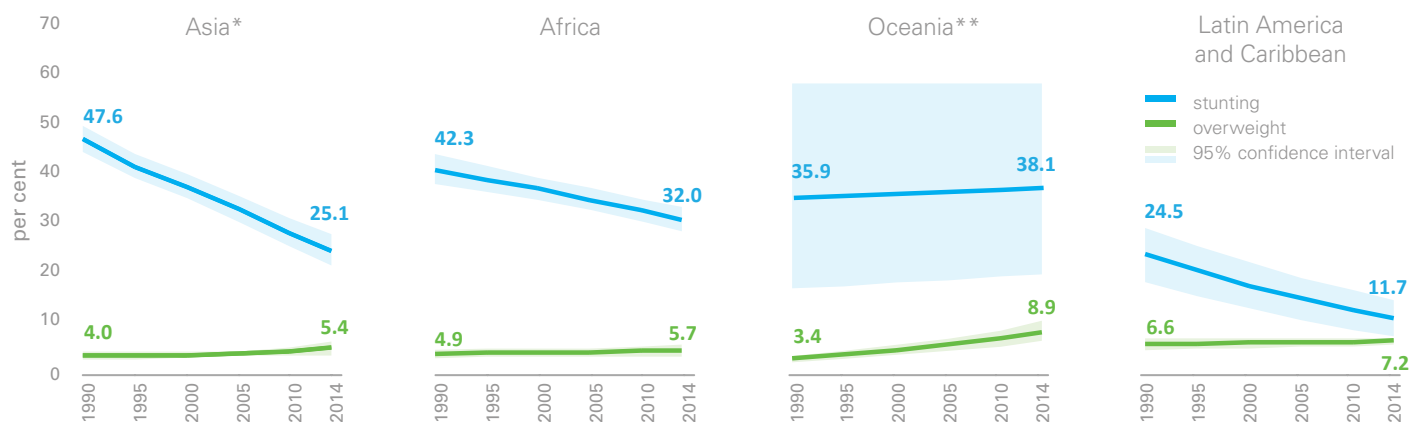
**World Bank Group**  
<[data.worldbank.org/child-malnutrition](http://data.worldbank.org/child-malnutrition)>

# Regional overview – prevalence



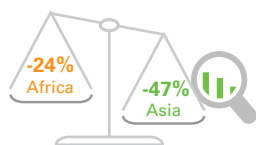
## Africa has seen slow progress in reducing stunting

Percentage of children under 5 stunted and percentage of children under 5 overweight, by United Nations region, 1990 – 2014



\*Asia (excluding Japan); \*\*Oceania (excluding Australia and New Zealand) 1990 and 1995 estimates had consecutive low population coverage. Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2015 edition.

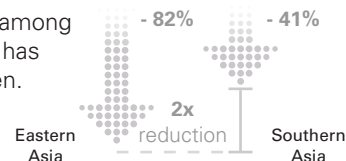
## Unequal progress in stunting reduction since 1990



While Asia as a whole has cut stunting by almost half...

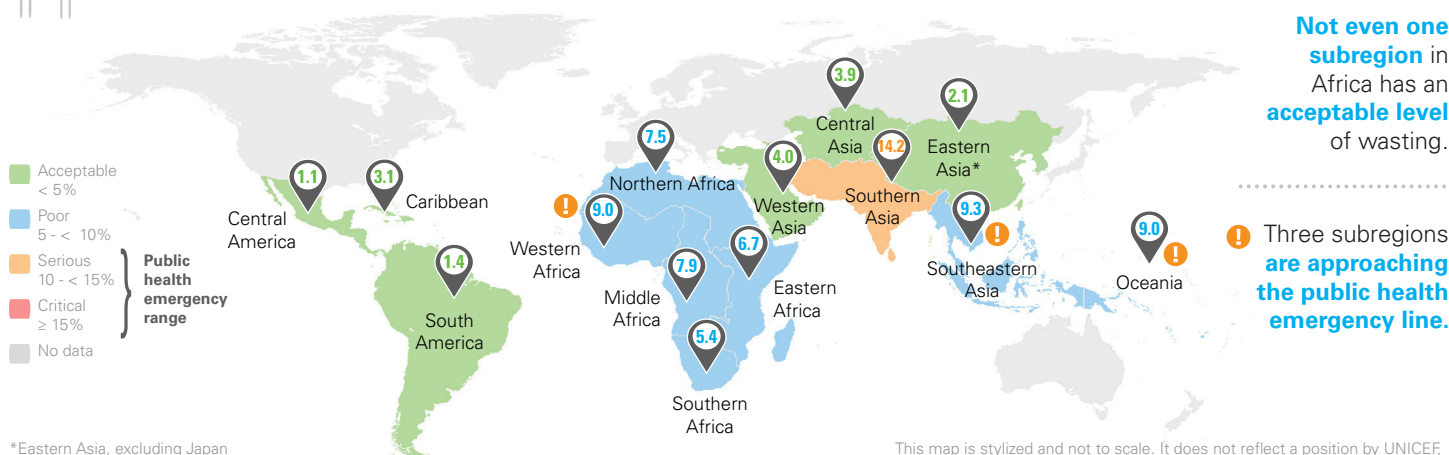


...progress among subregions has been uneven.



## In 2014, one subregion was above the public health emergency line for wasting

Percentage of children under 5 wasted, by United Nations subregion, 2014



Not even one subregion in Africa has an acceptable level of wasting.

Three subregions are approaching the public health emergency line.

\*Eastern Asia, excluding Japan  
 \*\*Oceania, excluding Australia and New Zealand  
 Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2015 edition.

This map is stylized and not to scale. It does 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.

## Forms of malnutrition\* highlighted in this key findings report



**Stunting** refers to a child who is too short for his/her age. Stunting is the failure to grow both physically and cognitively and is the result of chronic or recurrent malnutrition. Its effects often last a lifetime.



**Wasting** refers to a child who is too thin for his/her height. Wasting is the result of sudden or acute malnutrition, where the child is not getting enough calories from food and faces an immediate risk of death.



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

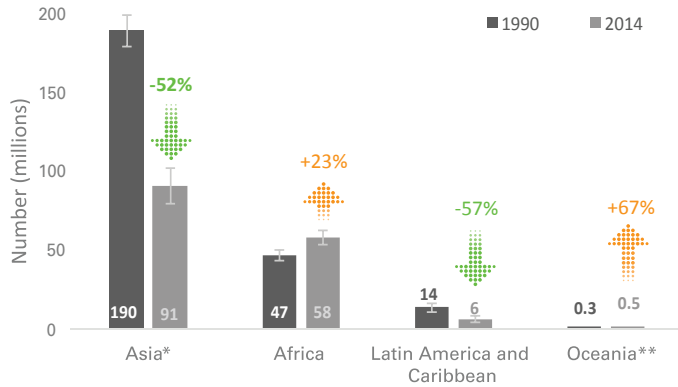
\*Note it is possible for a child to show combinations of malnutrition, such as be stunted and overweight or stunted and wasted.

# Regional overview – numbers affected



## In Africa, the number of stunted children is rising

Number of children under 5 stunted, by United Nations region, 1990 and 2014



\*Asia (excluding Japan); \*\*Oceania (excluding Australia and New Zealand) 1990 estimate had consecutive low population coverage.  
Source: UNICEF, WHO, World Bank Group joint malnutrition estimates 2015 edition.

In 2014, more than half of all stunted children under 5 lived in Asia and more than one third lived in Africa.



Asia 57%



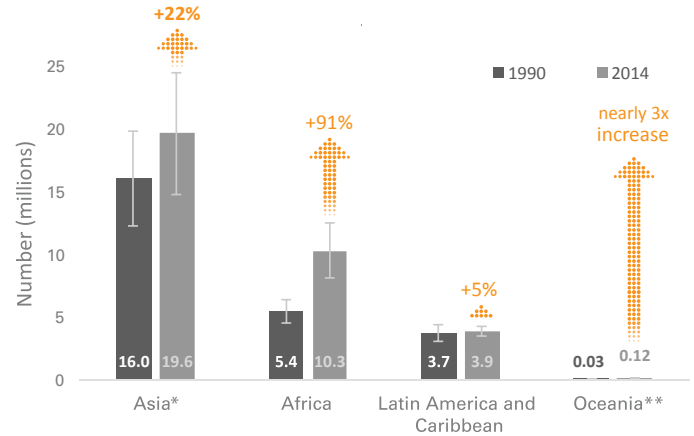
Africa 37%

**!** Three out of five sub-regions in Africa, Eastern Africa, Middle Africa and Western Africa, have rising numbers of stunted children under 5.



## The number of overweight children is on the rise in all regions

Number of children under 5 overweight, by United Nations region, 1990 and 2014



In 2014, almost half of all overweight children under 5 lived in Asia and one quarter lived in Africa.



Asia 48%



Africa 25%

**!** The number of overweight children under 5 in Africa has nearly doubled since 1990.



## The majority of children under 5 suffering from wasting live in Asia

(each child silhouette represents 1 million children)

Asia  
34.3 M



Africa  
13.9 M



Latin America and Caribbean  
0.7 M

Oceania  
0.1 M



Southern Asia is home to **more than half** of all wasted children under 5 globally.

In 2014, almost all wasted children under 5 lived in Asia and Africa.

Asia 68%



Africa 28%

## Strengths and weaknesses of malnutrition data



Prevalence estimates for stunting and overweight are relatively robust. Hence it is possible to generate reliable time trends.



Trends are not informative for wasting and severe wasting given that these are acute conditions, which can change rapidly. Thus only 2014 global and regional estimates are presented.



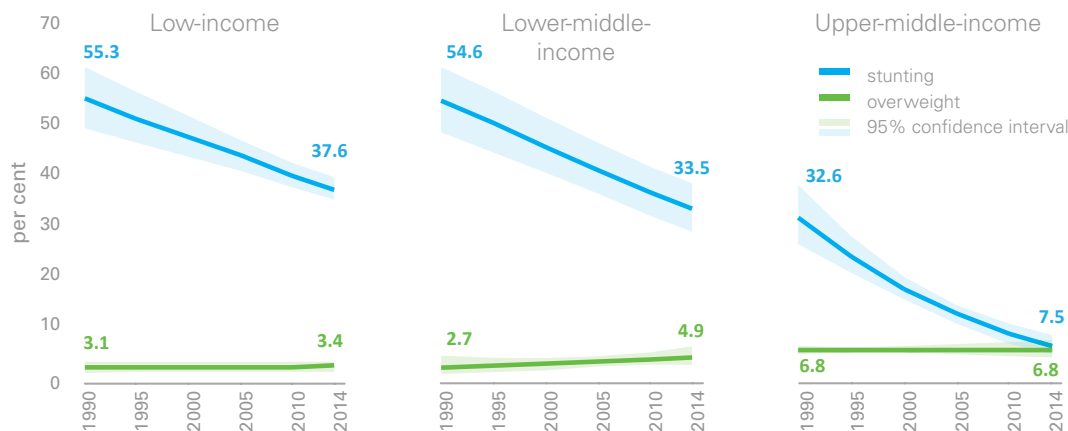
The underlying data for global and regional estimates are from country-level household surveys. Such country data are collected infrequently and measure malnutrition at one point in time. This makes it difficult to capture the rapid fluctuations of wasting and severe wasting over time. For programme purposes, incidence data (i.e., the number of new cases that occur during an entire calendar year) would be ideal, however, these currently do not exist.

# Country income groupings overview



## Low-income countries have made the least progress towards stunting reductions since 1990

Percentage of children under 5 stunted and percentage of children under 5 overweight, by country income classification, 1990 – 2014



Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2015 edition.

## Unequal progress in stunting reduction since 1990

Only a **32% decrease** in low-income countries...

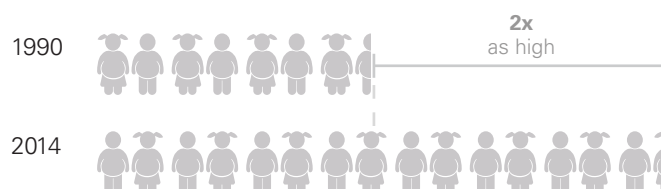


... and a **77% decrease** in upper-middle-income countries.



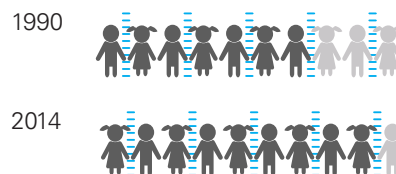
## Overweight numbers have doubled in lower-middle-income countries since 1990

The number of overweight children in lower-middle-income countries has more than **doubled** since 1990, from **7.5 million** to **15.5 million**.

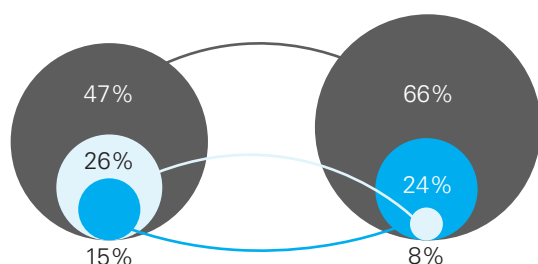


## Low-income and lower-middle-income countries now account for almost all stunted children worldwide

The share of all stunted children that live in low-income and lower-middle-income countries has shifted from **7 in 10** to **9 in 10** between 1990 and 2014.



## Lower-income countries bear a disproportionate share of stunted children relative to the total population distribution



Share of under-5 population in 2014

Share of stunted children under 5 in 2014

Less than half of all children under 5 lived in **lower-middle-income countries** in 2014, yet these countries accounted for two thirds of all stunted children globally.

**Low-income countries** only accounted for 15 per cent of the global under-5 population in 2014, but nearly one quarter of all stunted children live in these countries.

In 2014, one quarter of all children under 5 lived in **upper-middle-income countries**, yet these countries only accounted for 8 per cent of all stunted children globally.

Note: the numbers do not add up to 100 per cent; the residual is for high-income countries.

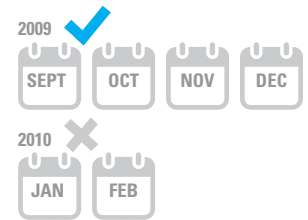


# Notes on methodology

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 had been cancelled or significantly changed before release.



## 3. Updated data sources

i. The updated joint dataset which includes:

- 778 national surveys (**62 new**)
- 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)).

ii. The under 5 population estimates

The United Nations World Population Prospects, 2015 Revision, were used as weighting factors for each country survey to derive the regional and global prevalence estimates and calculate the numbers affected.

iii. Regional and country income classifications as per July 2015

- countries with data
- countries without data

## 4. Footnotes on population coverage

As 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:

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

This brochure was prepared by the Data and Analytics Section of the Division of Data, Research and Policy, UNICEF New York, the Department of Nutrition for Health and Development, WHO Geneva and the Development Data Group, World Bank Group Washington DC. September 2015.

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