

Levels & Trends in  
**Child  
Malnutrition**

**UNICEF-WHO-The World Bank  
Joint Child Malnutrition  
Estimates**



THE WORLD BANK

UNICEF, WHO and the World Bank released an updated joint dataset on child malnutrition indicators (stunting, wasting, severe wasting, overweight and underweight) and new global & regional estimates for 2013 with 95% confidence intervals in September 2014 through an interactive dashboard.<sup>1,2</sup> This summary note presents key messages and highlights refinements to the method.

## Key messages

### Stunting

- Globally 161 million under-five year olds were estimated to be stunted in 2013.
- The global trend in stunting prevalence and numbers affected is decreasing. Between 2000 and 2013 stunting prevalence declined from 33% to 25% and numbers declined from 199 million to 161 million.
- In 2013, about half of all stunted children lived in Asia and over one third in Africa.

### Wasting and severe wasting

- Globally, 51 million under-five year olds were wasted and 17 million were severely wasted in 2013.
- Globally, wasting prevalence in 2013 was estimated at almost 8% and nearly a third of that was for severe wasting, totaling 3%.
- In 2013, approximately two thirds of all wasted children lived in Asia and almost one third in Africa, with similar proportions for severely wasted children.

### Overweight

- Globally, 42 million under-five year olds were overweight in 2013, up from 32 million in 2000.
- The trend in overweight is rising in many regions. Between 2000 and 2013 overweight prevalence increased from 11% to 19% in Southern Africa, and from 3% to 7% in Southeastern Asia.
- In terms of regional breakdowns in numbers of overweight children in 2013, there were an estimated 18 million under-fives in Asia, 11 million in Africa and 4 million in Latin America and the Caribbean.
- Low levels and numbers of overweight in children under-five years were observed in the regions of Latin America and the Caribbean, with little change over the last 13 years. Nevertheless, countries with large populations like Argentina, Bolivia, Brazil, Chile and Peru observed levels of 7% and higher.

### Underweight

- Globally, 99 million under-five year olds were underweight in 2013, two thirds of which lived in Asia and about one third in Africa.
- The global trend in underweight prevalence continues to decrease; going from 25 per cent to 15 per cent between 1990 and 2013.
- Africa has experience the smallest relative decrease, with underweight prevalence of 17% in 2013 down from 23% in 1990, while in Asia for same period it reduced from 32% to 18% and in Latin America and the Caribbean from 8% to 3%. This means Asia and Latin America and the Caribbean are likely to meet the MDG while Africa is likely to fall short, reaching about only half of the targeted reduction.

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<sup>1</sup> The new joint child malnutrition estimates were prepared by Julia Krusevec and Andrew Thompson (UNICEF); Monika Blössner and Elaine Borghi (WHO); and Juan Feng and Umar Serajuddin (The World Bank).

<sup>2</sup> This new dataset supersedes the previous version of joint estimates presented in the report: "Levels and Trends in Child Malnutrition: UNICEF/WHO/The World Bank joint child malnutrition estimates" available on-line at: [http://www.who.int/entity/nutgrowthdb/jme\\_unicef\\_who\\_wb.pdf](http://www.who.int/entity/nutgrowthdb/jme_unicef_who_wb.pdf)

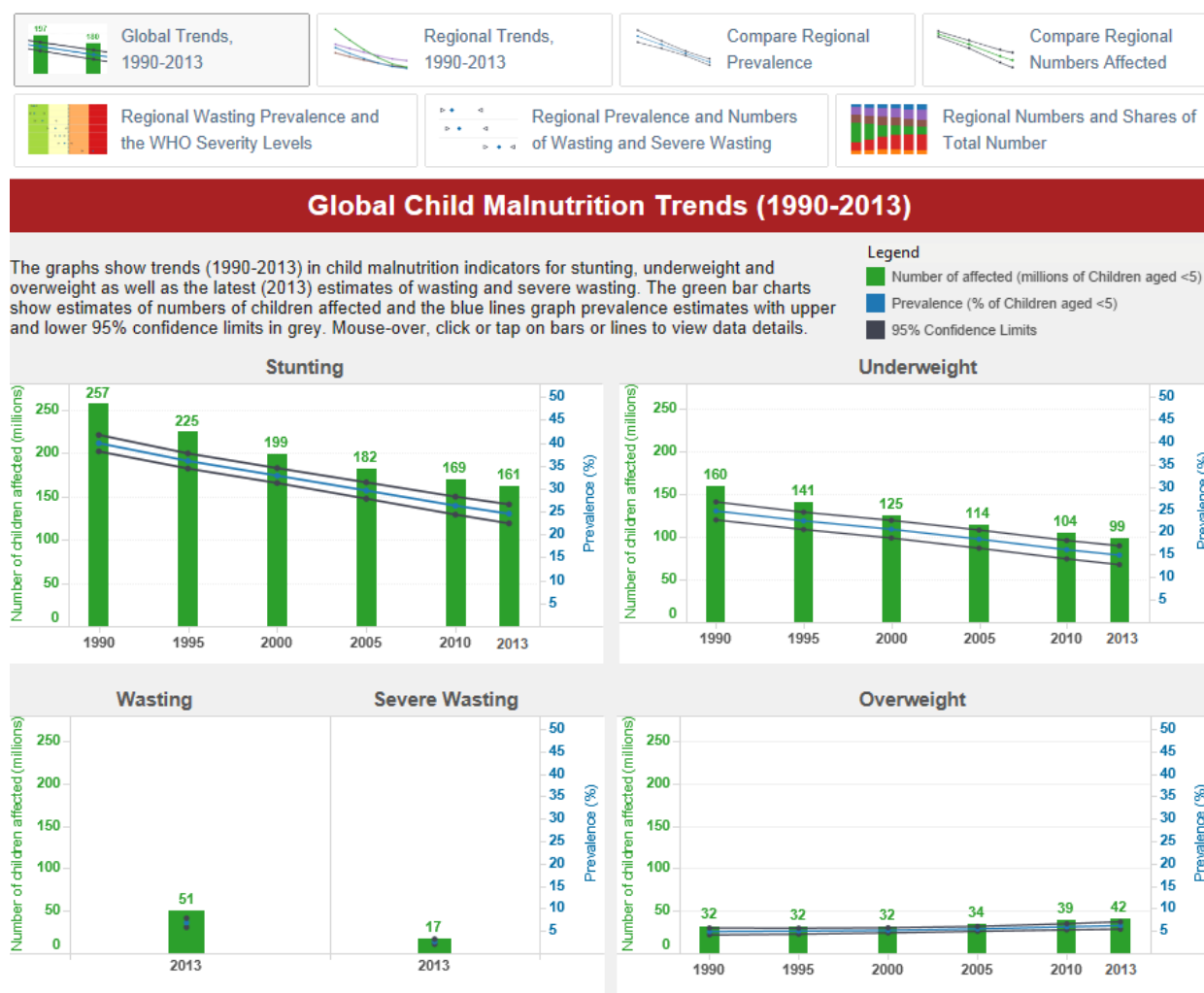
## Dashboards

Updated interactive dashboards enable users to explore the entire time-series (1990 – 2013) of global and regional estimates of prevalence and numbers affected for stunting, underweight, and overweight, and year 2013 for wasting and severe wasting, by the various country regional and income group classifications.<sup>3</sup> The on-line dashboards are available on the following websites:

**UNICEF** <http://data.unicef.org/resources/2013/webapps/nutrition>

**WHO** <http://www.who.int/nutgrowthdb/estimates>

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



<sup>3</sup> The data dashboards were developed by Vanessa Moreira da Silva, Juan Feng and Hiroko Maeda (The World Bank).

## Methodological notes

Data sources:

- The updated joint data set with 716 underlying national surveys from 145 countries that represent over 90% of all children under-five globally, population coverage varying by regions and periods;
- The under-5 population estimates (UN Population Prospects, the 2012 Revision) used as weighting factors to each country survey in order to derive the regional and global prevalence estimates and to calculate the numbers affected children;
- Region and country income classifications as per July 2014.

The overall approach and methodology remained unchanged from 2012.<sup>4</sup> The minor refinements include:

- The consideration of median months of data collection in addition to the year period whenever this information is available.
- Given the recent experience with preliminary survey data that were cancelled or changed significantly at the final release because of issues such as data quality or analysis, the group decided to no longer include preliminary survey results.

For this round we conducted a separate exercise to look at population coverage. This was felt important given that some confidence intervals seemed to convey a high level of certainty simply due to the homogeneity of the estimates in a subregion at a projected time point. A conservative method was applied looking at available data within mutually exclusive five-year periods around the projected years. Population coverage is calculated as the sum of country 5-year average populations (for which surveys are available in the data set) divided by the total of country 5-year average population for all countries in the region. Low population coverage is defined as being less than 50%.

Taking into consideration the nature of the mixed models, which allow low coverage periods to infer from neighbouring periods, only country-group estimates based on consecutive periods of low population coverage received a footnote to flag that the estimate should be interpreted with caution.

As severe wasting and wasting refer to serious conditions of child malnutrition which can change rapidly, their global and regional estimates are presented for 2013 only.

While the joint UNICEF/WHO/WB dataset provides the national aggregates, further disaggregated subnational estimates are available from the WHO global database ([www.who.int/nutgrowthdb](http://www.who.int/nutgrowthdb)), with additional contextual information (e.g. months, pre- or post-harvest) where reported. Country estimates are mainly derived from household surveys that allow for a snapshot view, and hence they do not capture the duration of wasting. Furthermore it is important to note that wasting and severe wasting can show big fluctuations across surveys within countries. A way to obtain better estimates for these severe conditions would be to use annual incidence (i.e., number of cases that occur in a population during a given year). However, estimates of wasting incidence at national or regional level do not exist. Therefore, the estimates of prevalence are a proxy and should be interpreted with caution as even the presented confidence intervals may or may not span over the fluctuations that have occurred. Contrary to wasting and severe wasting, the prevalence estimates of stunting, underweight, and overweight are more stable and thus reliable trends can be derived. As mentioned above where an estimate was based on low population coverage this figure has been flagged for cautious interpretation.

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<sup>4</sup> Background paper with methodological details is available from <http://www.who.int/nutgrowthdb/estimates2012/en/>.