KEY FINDINGS

THE GLOBAL NUTRITION LANDSCAPE: ASSESSING PROGRESS

This chapter outlines the latest estimates of nutrition status for eight indicators at the global, regional, and country levels.

• At a global level, the world is off course to meet global targets for nutrition. This assessment, however, hides significant variations between countries and regions:
  ▶ Many countries are on track to meet global targets for under-5 stunting, wasting, and overweight, and exclusive breastfeeding of infants younger than 6 months old.
  ▶ Nearly all countries are off course for the targets on anemia in women, and adult overweight, obesity, and raised blood glucose/diabetes.
  ▶ Under-5 stunting is declining in every region except Africa, and the number of overweight children under 5 is increasing most rapidly in Asia.

• Obesity and overweight are now a staggering global burden—and are approaching the scale of other forms of malnutrition. The prevalence of adult overweight, obesity, and diabetes is rising for every region and nearly every country. The number of children under 5 who are overweight continues to rise globally, approaching the number of children under 5 who suffer from wasting.

• Data gaps remain a significant roadblock to assessing progress on nutrition. The absence of data is a fundamental impediment to determining real progress at the global and national levels, hiding inequalities within countries and making it more difficult to hold governments accountable.
A S DISCUSSED IN CHAPTER 1, SETTING TARGETS IS ONE MANIFESTATION OF POLITICAL COMMITMENT. COUNTRIES HAVE ALREADY MADE A SERIES OF COMMITMENTS TO ATTAIN global nutrition targets by 2025 (Panel 2.1). For maternal, infant, and young child nutrition, the 2012 World Health Assembly (WHA) set six targets for 2025. The Global Nutrition Report tracks five of these.† The WHA also agreed on nine noncommunicable disease (NCD) targets, one of which—“Halt the rise in diabetes and obesity”—is tracked in this report via three indicators. In all, we use eight nutrition status indicators to track six of the targets.

This chapter gives the latest estimates of nutrition status for these eight indicators worldwide, by region, and by country. First, we present progress at the global and regional levels. Second, we present nutrition status at the national level in three different ways—against global goals, relative to other countries, and jointly—combining stunting and wasting estimates for a fuller representation of the burden of undernutrition.

PROGRESS IN MEETING GLOBAL GOALS

The latest Joint Child Malnutrition Estimates for stunting, wasting, severe wasting, and overweight in children under 5 from UNICEF, the World Health Organization (WHO), and the World Bank (released in September 2015) are presented in Table 2.1. The estimates remind us that we have made substantial progress in reducing the number of stunted children, but less in wasting. And the number of under-5 overweight children is increasing. We have no updated data for anemia, adult overweight and obesity, or raised blood glucose since the Global Nutrition Report 2015.

The latest Joint Child Malnutrition Estimates on stunting, wasting, and under-5 overweight do not change our assessment in the Global Nutrition Report 2015 that the world is off course to meet the global goals for the eight nutrition indicators we track (Table 2.2).

Regionally, as shown in Figure 2.1, stunting numbers are declining in each region listed, except for Africa. The number of overweight children under 5 (Figure 2.1) is increasing most rapidly in Asia.

As Figure 2.2 shows, adult overweight and obesity, obesity alone, and diabetes (raised blood glucose) prevalences are estimated to increase at similar rates for all regions.
## TABLE 2.1  The global state of malnutrition

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Number of individuals</th>
<th>Current prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under-5 stunting</td>
<td>159 million in 2014 (255 million in 1990)</td>
<td>23.8 (39.6 in 1990)</td>
</tr>
<tr>
<td>Under-5 overweight</td>
<td>41 million in 2014 (31 million in 1990)</td>
<td>6.1 (4.8 in 1990)</td>
</tr>
<tr>
<td>Under-5 wasting</td>
<td>50 million in 2014</td>
<td>7.5</td>
</tr>
<tr>
<td>Under-5 severe wasting</td>
<td>16 million in 2014</td>
<td>2.4</td>
</tr>
<tr>
<td>Anemia in women ages 15–49 years (nonpregnant and pregnant)</td>
<td>533 million in 2011</td>
<td>29 for nonpregnant women in 2011 (33 in 1995) 38 for pregnant women in 2011 (43 in 1995)</td>
</tr>
<tr>
<td>Exclusive breastfeeding (under 6 months)</td>
<td>NA</td>
<td>39 in 2014</td>
</tr>
<tr>
<td>Low birth weight</td>
<td>20 million in 2014</td>
<td>15</td>
</tr>
<tr>
<td>Adult overweight (ages 18+)</td>
<td>1.9 billion in 2014</td>
<td>39</td>
</tr>
<tr>
<td>Adult obesity (ages 18+)</td>
<td>600 million in 2014</td>
<td>13</td>
</tr>
<tr>
<td>Adult diabetes (raised blood glucose) (ages 18+)</td>
<td>NA</td>
<td>9</td>
</tr>
</tbody>
</table>

Source: Stunting, overweight, wasting, and severe wasting figures are from the 2015 Joint Child Malnutrition Estimates, which estimated figures for 2014 (UNICEF, WHO, and World Bank 2015); anemia figures are from Stevens et al. (2013), who estimated data from 2011; exclusive breastfeeding data are from UNICEF (2016b); low birth weight data are from the latest World Health Organization (WHO) policy brief on the subject (WHO 2014a); adult overweight, obesity, and diabetes data are from WHO (2014b).

Note: NA = not available; there are no global numbers on how many people have diabetes and how many infants are exclusively breastfed, to correspond with the percentages. Comparable data are not available for 1990 for under-5 wasting, under-5 severe wasting, and anemia in women of reproductive age. According to the Joint Child Malnutrition Estimates for 2015 (UNICEF, WHO, and World Bank 2015), there were 667 million children under 5 in the world.

## TABLE 2.2  Global progress against global nutrition targets

<table>
<thead>
<tr>
<th>Target and indicator</th>
<th>Baseline year</th>
<th>Baseline status</th>
<th>Target for 2025</th>
<th>On or off course?</th>
<th>Basis for assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stunting 40% reduction in the number of children under 5 who are stunted</td>
<td>2012</td>
<td>162 million</td>
<td>~100 million (currently 159 million)</td>
<td>Off</td>
<td>Current rate of reduction not rapid enough to attain 100 million by 2025</td>
</tr>
<tr>
<td>Wasting Reduce and maintain childhood wasting at less than 5%</td>
<td>2012</td>
<td>8%</td>
<td>&lt; 5% (currently 7.5%)</td>
<td>Off</td>
<td>Current rate of reduction not rapid enough to reach below 5% by 2025</td>
</tr>
<tr>
<td>Under-5 overweight No increase in childhood overweight</td>
<td>2012</td>
<td>7%</td>
<td>No increase (currently 6.1%)</td>
<td>Off</td>
<td>The baseline proportion for 2012 was revised down from 7% to 5.9% in the JCMEs for 2015, and the current rate is marginally above this threshold and hence off course</td>
</tr>
<tr>
<td>Anemia 50% reduction of anemia in women of reproductive age</td>
<td>2011</td>
<td>29%</td>
<td>15% (no new data over baseline)</td>
<td>Off</td>
<td>Very little progress since 1995, when it was estimated at 33%</td>
</tr>
<tr>
<td>Low birth weight 30% reduction in low birth weight</td>
<td>2008–2012</td>
<td>15%</td>
<td>10%</td>
<td>NA</td>
<td>Estimating methods being revised (see Panel 2.1)</td>
</tr>
<tr>
<td>Exclusive breastfeeding Increase the rate of exclusive breastfeeding in the first six months to at least 50%</td>
<td>2008–2012</td>
<td>38%</td>
<td>50% (currently 39%)</td>
<td>Off</td>
<td>Not increasing rapidly enough to meet 50% by 2025</td>
</tr>
<tr>
<td>Adult overweight Halt the rise in prevalence</td>
<td>2014</td>
<td>38%</td>
<td>Halt the rise in prevalence</td>
<td>Off</td>
<td>Rates are increasing in vast majority of countries, 2010–2014</td>
</tr>
<tr>
<td>Adult obesity Halt the rise in prevalence</td>
<td>2014</td>
<td>12%</td>
<td>Halt the rise in prevalence</td>
<td>Off</td>
<td>Rates are increasing in vast majority of countries, 2010–2014</td>
</tr>
<tr>
<td>Adult diabetes (raised blood glucose) Halt the rise in prevalence</td>
<td>2014</td>
<td>9%</td>
<td>Halt the rise in prevalence</td>
<td>Off</td>
<td>Rates are increasing in vast majority of countries, 2010–2014</td>
</tr>
</tbody>
</table>

Source: Based on IFPRI (2014, Table 3.1; 2015a, Table 2.1), UNICEF, WHO, and World Bank (2015), WHO (2014b, 2016s, 2016t); 1995 anemia estimate from Stevens et al. (2013).

Note: The term “global nutrition targets” refers to targets adopted by the World Health Assembly for maternal, infant, and young child nutrition and the nutrition-related targets in the Global Monitoring Framework for the Prevention and Control of NCDs. For low birth weight, new data estimation methods have been developed and are planned for release in the second half of 2016 by a working group including the London School of Hygiene and Tropical Medicine, UNICEF, and the World Health Organization. For more on the methods behind the stunting target, see de Onis et al. (2013). NA = no data available. JCMEs = Joint Child Malnutrition Estimates.
**Figure 2.1** Number of children under 5 affected by stunting and overweight by region, 1990–2014

![Graph showing stunting and overweight by region from 1990 to 2014.](image)

**Source:** Authors, based on data from UNICEF, WHO, and World Bank (2015).

**Note:** LAC = Latin America and the Caribbean. Europe and Northern America were not included in the overweight figure because of lack of data. Estimates for Asia exclude Japan. Estimates for Oceania exclude Australia and New Zealand.

**Figure 2.2** Adult overweight and obesity, adult obesity, and adult diabetes, by UN region, 2010 and 2014

![Graph showing prevalence of adult overweight and obesity, adult obesity, and raised blood glucose by UN region from 2010 to 2014.](image)

**Source:** Authors, based on data from WHO (2015a).

**Note:** Raised blood glucose = fasting glucose ≥7.0 mmol/l (126 mg/dl) or on medication for raised blood glucose or with a history of diagnosis of diabetes. BMI = body mass index; LAC = Latin America and the Caribbean. Number of countries = 190. Prevalence data are age-standardized adjusted estimates (population age 18+ years). Regional estimates are population-weighted means.
But as we have seen from the 2014 and 2015 *Global Nutrition Reports*, the global and regional numbers hide a great deal of country variation. Applying the global goals at the country level reveals many countries on course and many more making progress, even if not at the rate required to meet the global target.

In fact, of the 24 countries reporting new data (in the JCMEs) since *Global Nutrition Report 2015*, only one has slipped in its assessment (from “on course” to “off course, some progress”). In contrast, Cameroon, Congo, El Salvador, Sao Tome and Principe, and Timor-Leste have all moved into the “on course” category for various indicators (see Appendix Table A3.1).

Figure 2.3 summarizes the latest state of progress for all countries against global targets using rules developed for *Global Nutrition Report 2015* (see Appendix 2). It shows, first, that many countries are on track and many are making good progress on the global WHA target for under-5 stunting, wasting, and overweight, and exclusive breastfeeding of infants younger than 6 months. Second, for the remaining four indicators—anemia in women ages 15–49 and adult overweight, obesity, and raised blood glucose—nearly all countries are off course. Third, data availability remains a real problem when it comes to making assessments. The first set of four indicators is based on cross-sectional surveys, but many countries do not have sufficient data to make an assessment. Out of four possible assessments for 193 countries, we are able to make only 436 assessments, or 56 percent of the total of 772. The second set of four indicators has a sparser underlying database because the assessments rely on modeled estimates. It is not clear whether there is a link between lack of progress toward a global target and reliance on modeled data; therefore more research could be done here.

Figure 2.3 does not include low-birth-weight (LBW) assessments because LBW prevalence estimates need strengthening. Work is ongoing in this area, and Panel 2.2 describes what is being done and what progress is being made.
The absence of data is a fundamental impediment to our ability to identify real progress at the global and national levels and to learn from it. It hides inequality within countries and makes the Sustainable Development Goals aspiration of “leaving no one behind” much harder to attain. Finally, it also represents a fundamental barrier to accountability. Panel 2.3 highlights the data available in the Global Nutrition Report’s own country nutrition profiles.

In the Sustainable Development Goals era, the data revolution must include nutrition. Those in the nutrition community must pursue every opportunity to engage with data investment processes, starting with the World Data Revolution for Sustainable Development forum, planned for the second half of 2016 and every two to three years thereafter (UN SDSN 2015).

PANEL 2.2 HOW MANY LOW-BIRTH-WEIGHT BABIES ARE BORN EACH YEAR?

HANNAH BLENCOWE, ELAINE BORGHI, MERCEDES DE ONIS, JULIA KRASEVEC, JOY LAWN, AND SUHAIL SHIEKH

Low birth weight places infants at an increased risk of morbidity and mortality, and is a key indicator of preterm birth and nutritional status. In 2012, the World Health Assembly adopted the target of reducing low birth weight (LBW) by 30 percent between 2012 and 2025 (WHO 2012b), but monitoring progress has been challenging because many newborns are not weighed at birth. In order to improve the country-level and time-series data, UNICEF, the World Health Organization, and Johns Hopkins University have been working with the London School of Hygiene and Tropical Medicine to increase the quantity and quality of LBW data, including the following:

- Expansion of data from routine reporting systems (1,119 data points from 99 countries are now included, covering more than 308 million live births)
- Improved methods to adjust LBW rate estimates from household survey data (applied to 70 Multiple Indicator Cluster Surveys and 93 Demographic and Health Surveys)
- Revision of inclusion criteria to include only survey data with at least 30 percent of newborns weighed (32 surveys eliminated from 18 countries), and to exclude data sources with LBW rates of less than 3.2 percent or greater than 40 percent (37 data points from 15 countries excluded)
- Development of a model to estimate LBW rates and enhance comparability across countries in a transparent and objective manner

The good news is that there are now more data from routine health reporting, mainly from high-income and upper-middle-income countries, and the quality of the available time-series data has been enhanced by revised inclusion criteria. However, most of the data excluded based on these revised inclusion criteria were from low- and lower-middle-income countries, where only a minority of newborns are weighed; thus, the available data represent a biased sample of children from richer families.

Immediate next steps include finalizing the revised time series, completing the modeling, conducting country consultations, and disseminating the results in early 2017. The group will also work on guidelines for accurately weighing, recording, and reporting of birth weights to help improve the quality of country data.

Reporting LBW requires a skilled attendant at birth, equipped with appropriate equipment and skills to weigh the baby and record the birth weight, and effective routine reporting systems to collate the data. Global LBW reporting will continue to be hampered by substandard input data until governments prioritize and invest in skilled attendants at birth, while addressing the barriers to ensure that all newborns’ weights are taken, recorded, and reported.

PROGRESS IN NUTRITION STATUS AT THE NATIONAL LEVEL

This section presents national nutrition status data in three different ways to help country stakeholders accelerate action for nutrition.

First, we present data on which countries are closest to being on course relative to the eight global targets. Countries will decide where they allocate their energy and resources in the fight against malnutrition. Knowing they are close to meeting a global target might inspire further action, although it may also detract attention from indicators that are making little progress. Either way, the additional data should stimulate further discussion about priorities.

Second, we present national rankings of countries on the eight indicators. National rankings tend to be easier
FIGURE 2.4  Countries that are closest to moving from off course to on course, by nutrition indicator

| Stunting, children under 5 (n = 114) | Nepal (closest), Côte d’Ivoire, Nicaragua, Uruguay, Serbia, Zimbabwe, India, Equatorial Guinea, Rwanda, Sri Lanka |
| Wasting, children under 5 (n = 130) | Suriname (closest), Tonga, Haiti, Liberia, Viet Nam, Cameroon, Senegal, Congo, Bhutan, Guinea-Bissau |
| Overweight, children under 5 (n = 109) | Jamaica (closest), Djibouti, Bolivia, Morocco, Lesotho, Indonesia, Chile, Mozambique, Rwanda, Republic of Korea |
| Exclusive breastfeeding, <6 months (n = 83) | Peru (closest), Malawi, Jamaica, Guatemala, Bhutan, Ukraine, Ethiopia, Armenia, The FYR Macedonia, Belarus |
| Anemia, women aged 15–49 years (n = 185) | Peru (closest), Vanuatu, Mexico, Kenya, Philippines, Ethiopia, Tajikistan, Indonesia, Panama, Malawi |
| Adult overweight/obesity (BMI ≥ 25) (n = 190) | Nauru (closest), Marshall Islands, Tonga, Kiribati, Micronesia, Palau, Fiji, Japan, Samoa, DPR Korea |
| Adult obesity (BMI ≥ 30) (n = 190) | DPR Korea (closest), Nauru, Japan, Afghanistan, Timor-Leste, Eritrea, Nepal, Niger, Burundi, Central African Republic |
| Adult diabetes (raised blood glucose) (n = 190) | Israel (closest), Bosnia and Herzegovina, Latvia, Singapore, DPR Korea, Belgium, Spain, Ukraine, Montenegro, Japan |

GLOBAL TARGET


Note: BMI = body mass index; DPR Korea = Democratic People’s Republic of Korea; The FYR Macedonia = The former Yugoslav Republic of Macedonia.
for policy makers and the public to interpret, and therefore they can spark debate on performance relative to other countries.

Finally, for a large number of countries we present data on the percentage of children under 5 affected by stunting, wasting, or both. When we assess nutrition status and advocate for reduction of malnutrition, we tend to use one indicator or the other, but combining them provides a fuller sense of the burden of malnutrition, which in turn maintains a sense of the urgent need to act.

COUNTRIES THAT ARE CLOSEST TO BEING ON COURSE TO MEET GLOBAL GOALS

The 2015 Global Nutrition Report added some nuance to country assessments, distinguishing whether a country was off course and making little progress, or was off course and making progress. Here we provide some detail on which countries are closest to being on course for each of the eight nutrition indicators tracked in the Global Nutrition Report. Closeness is assessed based on simple distance between rates of progress required to meet targets and actual rates of progress.2

Figure 2.4 highlights the 10 countries for each indicator that are closest to meeting the required rate of change to reach the global goal in 2025. The assessment may cast a different light on the data and thereby provide countries with some added impetus in knowing how close they are to being “on course” to meet the global goal.

COUNTRY RANKINGS BY NUTRITION STATUS INDICATORS

Appendix Tables 3.2–3.9 show the rankings of countries by their levels on the eight indicators in Figure 2.4. The rankings provide countries with a sense of their position relative to their neighbors and comparators, rather than relative to a global target. The rankings are also a useful way for civil society organizations to compare their own country’s standing and to advance dialogue on why their country is doing better or worse than comparators. In the numerous Global Nutrition Report launches around the world, we present nutrition status data for countries within

PANEL 2.4 COUNTRY LAUNCHES OF THE GLOBAL NUTRITION REPORT CAN BE A SPARK FOR NEW ACTION

LAWRENCE HADDAD

I have been lucky enough to attend more than 20 Global Nutrition Report country launches during 2014–2016, covering countries with very different types of malnutrition burden. This is a subjective assessment of what I have noted about the ability of the report launches to spark dialogue and action.

1. The demand for country launches is strong. The vast majority of launches are organized by stakeholders within the country. There is an appetite for an event that looks at malnutrition in all its forms, at inputs as well as outcomes, at progress within the region as well as against global goals, and at process as well as achievements.

2. Conversations are sparked. Sometimes they are about data (for example, why the latest national data are different from what is in the WHO/UNICEF/World Bank databases and therefore in the Global Nutrition Report), sometimes they are about issues that are highly relevant in the host country but have not been given sufficient emphasis in the Global Nutrition Report (for example, the role of the media or inequality within a country), and sometimes they are about disbelief that the country is doing better (or worse) than a neighbor.

3. Actions are initiated. Examples include a minister of health calling up his staff and demanding to know why the country is not on track for a global goal; a member of parliament wanting to know how her country can make a Nutrition for Growth commitment; leaders of a national planning process engaging with the Global Nutrition Report team in helping to shape, justify, and communicate their new national nutrition strategy; a cabinet secretary wanting to know how to use the evidence on the economic returns on scaling up nutrition actions; and a civil society network leader using the Global Nutrition Report statistics and presentations to make the case for the country to become a member of the Scaling Up Nutrition Movement.

4. The Global Nutrition Report launches are a poor substitute for a similar national effort. Periodic national nutrition reports would strengthen the ownership of nutrition accountability, bring in more granular and relevant data, and feed into national and subnational nutrition processes. This would also stimulate the production, analysis, scrutiny, and use of national and subnational data.
the particular region ranked by the eight indicators tracked by the Global Nutrition Report. The position of the host country relative to its neighbors never ceases to catch the attention of host government officials or that country’s national media (Panel 2.4).

**COUNTRY RANKING BY THE COMBINED BURDEN OF STUNTING AND WASTING**

Not all children who are stunted are wasted. And not all children who are wasted are stunted. To fully assess the burden of under-5 undernutrition, we need to estimate how many children are affected by stunting, wasting, or both. In the Global Nutrition Report 2015, using data from five countries with a high burden of undernutrition, we provided a snapshot of the prevalence of children 6–59 months old who were stunted, wasted, or both (concurrency), highlighting the fact that in all five countries, a minority of children avoided both stunting and wasting (Dolan, Mwangome, and Khara 2015).

Here we provide an expanded analysis from all countries with recent (2005–2015) available country-representative datasets. The 83 countries in the sample included those with high, medium, and low burdens of undernutrition. The estimated prevalence of children between 6 and 59 months of age who are wasted or stunted is 38.9 percent. This compares with an estimate for the same countries of 33.0 percent of children 6–59 months who are stunted. An estimate of the percentage of children who are stunted or wasted provides a larger estimate of the burden of malnutrition affecting children under 5 than stunting numbers alone. As Figure 2.5 shows, out of the 83 countries, there are 13, highlighted in red, where less than half of all children under 5 escaped both stunting and wasting.

**CALLS TO ACTION**

1. **Support more nutrition progress stories.**

   Every country is an example of nutrition success, failure, or stagnation, but these stories need to be told. Countries that are on track to meet global goals can provide guidance and inspiration on how to reduce malnutrition; countries that are not on track also demand further understanding and analysis. Funders should encourage researchers to undertake these assessments, journals should publish these reports, and findings should be disseminated in mainstream media. The need for credible stories is particularly great wherever indicators are stagnating or worsening. Given the urgent need for progress stories, by 2018 a major multiyear, multicountry research program should be funded on why change does or does not happen.

2. **Invest in more and better data to assess progress.**

   The availability of internationally comparable data on nutrition outcomes is still weak, either because high-quality data are not collected at the country level or because they are not reported to the United Nations—but these data are essential to ensuring accountability.
   - Surveys on rates of under-5 stunting, wasting, and overweight, as well as exclusive breastfeeding, should be conducted at least every three to five years. More surveys need to assess anemia. The funders of Demographic and Health Surveys, Multiple Indicator Cluster Surveys, and other such surveys should be prepared to coordinate more among themselves and respond to government demand for surveys every three years. Countries with high burdens of malnutrition and with data more than five years old should be a priority for new data collection.
   - By 2020 all high-income countries should make their data compatible with UN databases.
   - Within the next 12 months, nutrition champions within the UN and multilateral agencies should strengthen nutrition’s presence in the ongoing “data revolution” discussion to ensure that nutrition is not left behind. This effort could start with the World Data Revolution for Sustainable Development Forum in the second half of 2016.

3. **Start assessing national progress on nutrition every year.**

   Countries should consider producing annual national reports on nutrition, linked to current processes, and use these data to assess progress and evidence on what works, adjust tactics and budgets, amend national nutrition plans, and be accountable for progress.
Figure 2.5 Percentage of children 6–59 months of age who are neither stunted nor wasted


Note: Red bars designate country-years in which the percentage of children 6–59 months old who avoid stunting, wasting, or both is below 50 percent. DRC = Democratic Republic of the Congo; Lao PDR = Lao People’s Democratic Republic; The FYR Macedonia = The former Yugoslav Republic of Macedonia.