WHA Global Nutrition Targets 2025:
Wasting Policy Brief

TARGET: Reduce and maintain childhood wasting to less than 5%


Gates/Peter DiCampo

What's at stake

In 2012, the World Health Assembly Resolution 65.6 endorsed a *Comprehensive implementation plan on maternal, infant and young child nutrition*[1], which specified six global nutrition targets for 2025 (2). This policy brief covers the sixth target: **to reduce and maintain childhood wasting to less than 5%.** The purpose of this policy brief is to increase attention to, investment in, and action for a set of cost-effective interventions and policies that can help Member States and their partners to reduce and maintain the rate of childhood wasting.

The global target for 2025 will be achieved if high-burden countries take stock of their current prevalence, projected population growth, underlying causes of wasting and the resources available to address them; set target annual reduction rates to guide intervention efforts; mobilize necessary resources; and develop and implement systematic plans for the reduction of wasting. Countries need to examine inequalities among populations and identify priority actions for particular vulnerable or marginalized groups, where there are clusters of large numbers of wasting children. Such an equity-inspired approach is both an ethical imperative and a judicious investment strategy.

Wasting is a major health problem and, owing to its associated risks for morbidity, requires urgent attention from policy-makers and programme implementers alike. Addressing wasting is of critical importance because of the heightened risk of disease and death for children who lose too much of their body weight. It will be difficult to continue improving rates of child survival without improvements in the proportion of wasted children receiving timely and appropriate life-saving treatment, alongside reductions in the number of children becoming wasted in the first place (prevention).

The World Health Organization (WHO) classifies wasting as severe or moderate, according to the WHO growth reference for weight-for-height[3]. This definition does not include children with bilateral pitting oedema – a form of acute undernutrition that results from similar causal pathways to wasting. Wasting is a reduction or loss of body weight in relation to height. Acute malnutrition in children aged

GLOBAL TARGETS 2025 To improve maternal, infant and young child nutrition

World Health Organization

1,000 DAYS

6 to 59 months can be either moderate or severe. Severe acute malnutrition is defined as severe wasting and/or mid-upper arm circumference (MUAC) <115 mm and/or bilateral pitting oedema. Moderate acute malnutrition is defined as moderate wasting and/or MUAC ≥115 mm and <125 mm. It is estimated that, at any point in time in the world, 52 million children aged under 5 years are wasted, with 17 million of those estimated to be severely wasted, based on national-level prevalence data[4]. It is important to note that these estimates may miss a relatively large proportion of incident cases of wasting occurring over time and, depending on the timing of the survey on which they are based, seasonal peaks may also be missed. This means that the current global estimates probably underestimate the actual annual burden of wasting[5].

The World Health Assembly wasting target[2] has two aspects – reducing and then maintaining levels of childhood wasting to below 5% – both of which are major challenges. Currently, some (highly populated) countries report a prevalence of wasting of more than 10% throughout the year, such as Nigeria (10%), Pakistan (15%) and India (20%). These levels are likely to rise during the lean seasons, as rates of wasting tend to "surge" seasonally during the year[6,7]. Globally, wasting accounts for 4.7% of all deaths of children aged under 5 years[8]. Severely wasted children are, on average, 11 times more likely to die than their healthy counterparts[8]. The current global levels of severe wasting are responsible for up to 2 million deaths annually[9]. Furthermore, even higher mortality has been reported when children are both wasted and stunted (with low height-for-age)[8].

At current trends, wasting rates of 7.8% will require a near 40% reduction in order to achieve the target of 5% by 2025 worldwide, and further investment and action are needed in order to reach the target. Of the 118 countries that reported the prevalence of wasting in 2013, only 49 (42%) reported a national average prevalence of less than 5%. This leaves 69 countries currently falling short of the target and an additional 78 countries for which data are not available[2]. Furthermore, in the 49 countries that reported wasting of less than 5%, data was not available to confirm that levels did not rise above 5% at any point during that year. The majority of all moderately (69%) and severely (71%) wasted children live in Asia[4]. Just over one quarter of all moderately (28%) and severely (28%) wasted children live in Africa. The majority of wasted children live outside of the humanitarian context, which is more commonly associated with high levels of wasting and is where treatment programmes have traditionally focused. It is estimated that, globally, less than 15% of wasted children are currently being reached by treatment services (see Table 1), and in some countries this percentage is considerably lower. These statistics are of serious global concern, given the well-established link between wasting and mortality.

Table 1. Estimated global numbers and percentage of children aged under 5 years with severe and moderate wasting treated in 2012[(4,10,11)a]

	Severe wasting	Moderate wasting
Estimated number of children at any given time[4]	17 million	34 million
Number of children reached with treatment services in 2012	2.6 million	4.6 million
Percentage of case-load reached[b]	<15%	<13.5%

[b] It should be noted that accurate reporting was identified as a weakness in both the severe and moderate wasting mapping exercises.

[a] A challenge in the interpretation of these estimates of both the wasting burden and the reach of services is that they use prevalence measures (e.g. a measure of how widespread the problem is at one point in time), rather than incidence (a measure of cases occurring during the year). Wasting is a relatively short-term condition compared to stunting and, as described above, is also highly affected by seasonality. Using prevalence to measure the burden of wasting therefore risks underestimating the number of children affected and, in turn, overestimating the percentage of the yearly case-load being reached. Surveys of coverage (e.g. the percentage of those found to be wasted that are reached by treatment services) are required to accurately estimate how many wasted children are being reached, yet few countries have carried out national coverage assessments to date.

Suboptimum growth indicative of wasting has been shown to increase the risk of death in childhood from infectious diseases such as diarrhoea, pneumonia and measles[12]. It is not yet well understood how much wasting contributes to conditions such as stunting, low birth weight and anaemia. Evidence does suggest, however, that episodes of wasting negatively affect linear growth and, therefore, undermine child growth and development[5].

Wasting and stunting share direct and underlying causal factors and preventive services tackling these causes are likely to impact both conditions. Associations between highly variable weight-for-height (a history of episodes of wasting) and lower linear growth have been found[13]. There must be a clear recognition that wasting confers double the risk of mortality associated with stunting, and being both stunted and wasted confers an even higher risk.

The lack of recognition of, and lack of emphasis on, increased mortality risks means policy-makers may also not be aware of how important it is to tackle wasting as a priority. The following are actions that policy-makers should consider prioritizing in order to reduce and maintain the rate of wasting to 5% or less.

- Improve the identification, measurement and understanding of wasting and scale up coverage of services for the identification and treatment of wasting.
- Develop improved methods and linkages for identification and treatment of wasting, both within the health sector and cross-sectorally.
- Rapidly develop evidence for effective prevention strategies to reduce the burden of wasting, which can then be translated into policy actions.
- Encourage and commission research to better understand the links between wasting and stunting, to ensure maximum leverage is realized from the current investments in nutrition programming.
- Encourage the increase of long-term funding for the prevention and treatment of acute malnutrition.
- Improve coordination between key government ministries to link treatment strategies for acute malnutrition to prevention strategies for wasting and stunting throughout the life-course.

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What causes wasting

Children become wasted when they lose weight rapidly, usually as a direct result of a combination of infection and diets that do not cover nutritional needs.

The main underlying causes of wasting are:

- poor access to appropriate, timely and affordable health care;
- inadequate caring and feeding practices (e.g. exclusive breastfeeding or low quantity and quality of complementary food);
- poor food security – not only in humanitarian situations, but also an ongoing lack of food quantity and diversity, characterized in many resource-poor settings by a monotonous diet with low nutrient density, together with inadequate knowledge of patterns of food storage, preparation and consumption; and
- lack of a sanitary environment, including access to safe water, sanitation and hygiene services.

These factors are strongly related to each other and have a cyclical relationship with wasting. Poor diet leads to increased risk of infection, and infection has a profound effect on nutritional status. A previously healthy child can quickly become wasted when faced with a severe infection, potentially leading to a loss of appetite. As wasting worsens, children become more susceptible to infections. This is known as the "vicious cycle" between infection and wasting. Diarrhoeal disease is common in low-income countries where hygiene and sanitation can be suboptimal and diarrhoea has been identified as a particular culprit in causing rapid weight loss[14]. Another suggested risk factor for wasting in childhood is having low birth weight or being small for gestational age. This risk factor may, therefore, be of particular importance in regions that have a high prevalence of small babies, for example in south Asia.

Framework for action

Improved methods and linkages for identification and treatment of wasting are needed, both within the health sector and cross-sectorally, in order to reduce and maintain reductions in wasting in the long-term. The global extent and consequences of wasting, particularly in some high-burden countries, has been recognized through joint statements issued by the United Nations (UN), in which the UN has endorsed community-based approaches for improving coverage of the treatment of wasting. This includes the use of MUAC as an alternative to assessing weight-for-height to aid in the timely identification of wasting[4]. Additionally, decentralized outpatient treatment services are also recommended for those with severe acute malnutrition (severe wasting and/or low MUAC and/or bilateral oedema), based on community identification and referral of cases, with inpatient care also provided for those with poor appetite, severe bilateral oedema, and/or additional medical complications. Supplementary foods are provided to those who are moderately wasted and who do not have access to diets that cover their nutrient needs while their medical conditions are treated.

Since the joint statements were issued and guidance documents developed, some countries have rapidly scaled up treatment services to national level. Ethiopia has perhaps been the most successful example of effective service decentralization, as described in Box 1.

Box 1: Ethiopia – decentralized, scaled-up treatment of severe acute malnutrition

Since 2008, the Ethiopian Ministry of Health (with partner support) has massively decentralized treatment services, to ensure wider access to, and coverage of, services to treat severe acute malnutrition. The service was decentralized to health posts following simplification of protocols and training of 8500 front-line health workers (health extension workers). During 2013 (a year of good harvest), a total of 267 500 children were admitted for therapeutic care (250 000 to outpatient care and 17 500 to inpatient care). Results are continually above internationally recommended standards, with a recovery rate of 86% reported for the year. During the early stages of the service, staff turnover was an issue (especially for ensuring all staff received appropriate training) and the reporting rate was poor. These challenges have been overcome, with 86% of facilities providing regular reports during 2013.

Treatment for severe wasting is not only vital but also cost effective, with an estimated cost of US$ 200 to treat each severely wasted child[15]. The 2013 Lancet series on undernutrition recognized treatment of severe acute malnutrition as the most cost effective of the various direct nutrition interventions[16]. The earlier the child receives treatment, the cheaper it will be, as they are less likely to have developed additional medical complications and recovery times will be shorter. Nutrition offers one of the best returns on investment. Every US$ 1 invested in nutrition, including the treatment of severe acute malnutrition, generates as much as US$ 138 in better health and increased productivity. At the other end of the scale – not investing in nutrition perpetuates economic losses both to individuals and to countries – at an estimated cost of up to 11% of annual gross domestic product in lost productivity[17,18].

While the treatment of severe wasting is a well-established, evidence-based intervention[17,18], integrating it into essential health packages at national level has proven to be challenging. This is partly due to existing weaknesses in health systems and challenges in securing sufficient long-term funding to adequately scale up the service to the national level, as well as issues related to the supply chain and availability of treatment commodities. Moreover, challenges in identification and treatment of wasting are also partly due to disagreements over where responsibilities lie. The international community has often supported the treatment of wasting during emergency situations. However, in order to reach the majority of children suffering from wasting in high-burden contexts, it is vital for wasting treatment to be integrated into a country's essential health package, and for routine training and supervision of health staff involved in treatment for wasting, community mobilization and early identification, to be included as part of the curriculum[19].

In many countries where the burden of wasting is high, there are no specific activities for either treatment or prevention of moderate wasting. To manage moderate wasting in children aged 0–24 months, the package of "essential nutrition actions"[20] should be implemented, including activities such as promotion of and support for breastfeeding, nutrition counselling for families regarding complementary feeding practices and the provision of food supplements. For older children, the focus should be on improving family foods (diversity, quality and safety). Linear programming (e.g. Optifood) is a tool that can be used to assess whether specific available foods (i) can meet recommendations for nutrient intake; (ii) can be afforded by households; and (iii) are part of the current diet. Moderately wasted children also need to have access to health services and be treated for any medical conditions they might have. In emergency contexts, including food-insecure settings, treatment of moderate wasting usually consists of provisions of a supplementary food. Beyond nutrition counselling or the increased availability of appropriate supplementary foods, the provision of cash vouchers/transfers is being explored further by a number of actors and may present advantages over product-based strategies for addressing moderate wasting. However, there is still limited consensus among the international community about the best approaches for either the treatment or prevention of moderate wasting.

The nature of nutrition is that it spans many sectors and relationships are key to reaching multiple global targets. Currently, evidence regarding the best ways to integrate nutrition within other sectors to achieve the desired improvements is limited. The impact of nutrition-sensitive interventions on wasting (e.g. agriculture, social protection, education, water and sanitation, etc.) has not been estimated. Improvements in the design of nutrition-sensitive services will increase the ability to:

- identify which of these indirect programmes have the greatest effect on improving nutrition outcomes; and
- attribute any improvement in nutritional status to the investments made.

The number of countries that have developed multisectoral plans that include the treatment and prevention of wasting is limited, but increasing. Nepal provides a good example (see Box 2).

Box 2: Example of a country that has developed a multisectoral plan: Nepal

Nepal experiences high levels of undernutrition, with wasting levels at 11%. The management of severe wasting has been included in the Multi-Sector Nutrition Plan (MSNP) developed by the Government of Nepal. A high-level steering committee oversees the operationalization of this plan and reports to the Prime Minister's office; hence there is good government "buy-in" and commitment. The plan will be monitored and results measured against the details outlined in the plan's logical framework.

Progress to achieve this target will depend not only on the scale up of interventions to treat severe wasting but also on the strength and effectiveness of prevention strategies. While Ethiopia is having impressive success in treating hundreds of thousands of children each year, the large numbers of children becoming wasted is only slowly reducing, and seasonal surges of wasting are still occurring, even in years of good harvest. Better links with preventive services are urgently required in order to reduce the number of wasted children. Services should be tailored to the context and encompass a range of different services; for example, promotion of improved infant and young child feeding; promotion of good hygiene and sanitation; and better social protection policies and programmes (e.g. targeted to the poorest families who need social support to ensure access to diets that cover nutritional needs year round). Country-level contextualization is essential since strategies that are successful in Asia might not have the same success in Africa, for example. Because India accounts for approximately one half of the global burden of wasting[21], reductions in the overall burden of wasting will be highly dependent on the extent to which India places treatment and prevention of wasting as a national priority.

Finally, programmes, policy, research and financing for wasting and stunting have been separate. Both wasting and stunting (and micronutrient deficiencies) share causal pathways, which suggest that action on one is very likely to impact the other[5]. For this reason, it is important to include treatment and prevention of wasting in development plans and goals. Wasting is a condition that millions of children develop each year, with a large burden of these numbers occurring in "non-emergency" situations. It is vital that policy-makers understand the importance of the problem of wasting, not only from the humanitarian perspective, but with a wider lens, if the dramatic and consistent reductions in wasting are going to be achieved.

Actions to drive progress in reducing wasting

1. Improve the identification, measurement and understanding of wasting and scale up coverage of services for the identification and treatment of wasting.

- Develop national wasting targets that are in line with, and will contribute to, achievement of the global World Health Assembly targets[2,22] (http://www.who.int/nutrition/trackingtool).
- Strengthen methods to accurately assess the burden of acute malnutrition for service planning, design and monitoring, including assessment according to the criteria used for admission (including bilateral edema and MUAC); as well as supporting the widespread assessment of national treatment coverage to allow for accurate assessment of the uptake and effectiveness of treatment services, for both severe and moderate acute malnutrition.
- Promote a holistic view of malnutrition through understanding that stunting, wasting and micronutrient deficiencies can occur in the same child, family and community, and ensure services for undernutrition are implemented in a more cohesive fashion.
- Develop national advocacy strategies to ensure that policy-makers understand that wasting is not a condition that only occurs in emergency contexts, but is a serious, ongoing cause of child mortality and morbidity.
- Develop better a understanding of the major causal factors of wasting, including seasonal patterns, and ensure resources and capacity are available to analyse the data. Intensify prevention strategies leading up to lean/hungry periods, and ensure treatment services have been scaled up to treat case-loads during the seasonal "surges" of wasting.

2. Develop improved methods and linkages for identification and treatment of wasting, both within the health sector and cross-sectorally.

- Ensure treatment of severe wasting is an integral part of the health policy/system and link with existing support for health-systems strengthening, by building the national capacity. Pre-service training is essential for all levels of health staff. In-service training is important when the new service is introduced, and as a refresher thereafter.
- Invest in health-system strengthening, supply chain management of RUTF, and other health technologies that are currently subject to stock-outs and are also expensive for national governments to procure. Failure to strengthen health systems to integrate nutrition at scale will hamper progress on reducing malnutrition.
- Ensure identification of wasting is conducted at all entry points of the health system, including vaccination services and child health days.

- Ensure that wasting is recorded as one of the factors in mortality statistics.
- Support the inclusion of nutrition outcomes in large multisectoral programmes, such as safety nets and agricultural and educational initiatives, in order to establish whether services are delivering results for nutrition.
- Include nutrition in the general curricula of primary and secondary school education so that children can take these messages home and influence their own parents and as a means of sensitizing future mothers and fathers.

3. Rapidly develop evidence for effective prevention strategies, to reduce the burden of wasting, which can then be translated into policy actions.

- Develop practical links between treatment and prevention services, tailored to context.
- Deliver prevention strategies outside of the health system in other sectoral programmes/services. Using simple key messages (such as the essential nutrition actions)[19] will help to ensure clear and consistent messages are provided across all contexts.
- Promote more research related to seasonal approaches for preventing moderate wasting, the use of cash transfers or the distribution of specific nutrient-dense food supplements during lean seasons, and sustainable solutions to improve year-round access to an appropriate diet for the prevention of wasting.

4. Encourage and commission research to better understand the links between wasting and stunting, to ensure maximum impact is realized from the current investments in nutrition programming.

- Better define the associations that exist between stunting and wasting in the population of children under 5 and the synergistic effect on improving long-term nutritional outcomes by tackling wasting alongside other nutrition interventions.
- Investigate whether there are regions/countries in the world where the association between wasting and stunting is more (or less) evident.
- Support operational research to investigate the effects of wasting and wasting treatment on linear growth.
- Support operational research into joint approaches for the prevention of stunting and wasting.

5. Encourage the increase of long-term funding for the prevention and treatment of acute malnutrition.

- Improve sustainable funding for the prevention and treatment of acute malnutrition/wasting in national health budgets and in the budgets of other nutrition-sensitive sectors, as appropriate.
- Improve coordination between key government ministries to link treatment strategies for acute malnutrition to prevention strategies for wasting and stunting throughout the life-course.

World Health Organization Nutrition Tracking Tool

To assist countries in setting national targets to achieve the global goals – and tracking their progress toward them – the WHO's Department of Nutrition for Health and Development and partners have developed a web-based tracking tool that allows users to explore different scenarios to achieve the rates of progress required to meet the 2025 targets. The tool can be accessed at www.who.int/nutrition/trackingtool.

Acknowledgments

This work was coordinated by the Evidence and Programme Guidance, Department of Nutrition for Health and Development, World Health Organization (WHO). The WHO would like to acknowledge contributions from the following individuals (in alphabetical order): Dr Francesco Branca, Ms Tanya Khara, Ms Emily Mates, Dr Juan Pablo Peña-Rosas and Ms Zita Weise Prinzo. The WHO would like to thank the following individuals for peer reviewing the Policy Brief (in alphabetical order by organization): Glen Tarman and Sandra Mutuma (Action Against Hunger), Ellen Piwoz (Bill and Melinda Gates Foundation), Paula Betuzzi (DFATD), Caroline Alba (International Medical Corps), Denise Lionetti (PATH), Denise DeBernardo and Elaine Gray (USAID), Erin Black (US Center for Disease Control and Prevention), Quinn Marshall (WFP) and Carolyn MacDonald (World Vision). The WHO would also like to thank 1,000 Days for their technical support, especially Ms Rebecca Olson.

Financial support

The WHO would like to thank the Micronutrient Initiative and the Bill & Melinda Gates Foundation for providing financial support for this work.

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