



# NOURISH THE FUTURE

**A PROPOSAL FOR THE BIDEN ADMINISTRATION**

JUNE 2021



# ENDORSEMENTS

## HENRIETTA FORE

FORMER EXECUTIVE DIRECTOR, UNICEF

"Over the past two decades, the world has reduced the proportion of children suffering from undernutrition by one third, and the number of undernourished children by an astonishing 55 million. This proves that progress is possible. However, a toxic combination of rising poverty, conflict, climate change and COVID-19 are risking a backwards slide. Solutions to prevent, detect and treat child malnutrition are proven and well known. Nourish the Future provides a visionary and actionable roadmap to take these solutions to scale, get back on track, and end malnutrition for good."

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## MICHELLE NUNN

CEO, CARE

"For decades, the U.S. has been an indispensable leader in the fight against global hunger and malnutrition. When America sets bold goals for global development, progress happens. With increasing climate change, growing humanitarian crises, and entrenched gender inequities, we have no time to waste in combating malnutrition in all corners of the world. Nourish the Future offers a smart, multisectoral approach that puts nutrition at the center of modern development efforts."

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## ZIPPY DUVALL

PRESIDENT, AMERICAN FARM BUREAU FEDERATION

"American farmers and ranchers have a long and proud history of helping to feed the world. We believe that everyone should have access to affordable, wholesome farm products, and that meat, dairy, produce and grains are all essential in fighting food insecurity and malnutrition both at home and abroad. Now is the time for increased U.S. leadership in the fight against hunger, and Nourish the Future provides a practical and comprehensive approach to getting us back on track."

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## DAN GLICKMAN

FORMER US SECRETARY OF AGRICULTURE

"Nourish the Future reflects a modern approach to harnessing the power of the American government, NGOs, farmers, and producers to fight global hunger and malnutrition. This is a focused plan to supercharge our ongoing investments in food systems and health systems in order to sustainably improve the lives of millions, and to prove that America is more willing than ever to lead."

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## TOM HART

CEO, ONE CAMPAIGN

"At a time when we are desperately working to end a global pandemic and preparing for pandemics on the horizon, strengthening both health and food systems in low- and middle-income countries has never been more important. Nourish the Future is vital for mitigating ongoing threats to global health security, ending preventable deaths, and alleviating global poverty."

## **AMBASSADOR ERTHARIN COUSIN**

CEO, FOOD SYSTEMS OF THE FUTURE AND FORMER EXECUTIVE DIRECTOR OF THE WORLD FOOD PROGRAMME

"I cannot overstate the dire need to strengthen our global food systems, fight rising rates of malnutrition, and support the next generation of entrepreneurs focused on producing healthy, sustainable food. Feed the Future laid the groundwork, successfully improved food security while raising many out of poverty. Nourish the Future represents the next chapter in this revolution, moving beyond simply feeding our future to nourishing people and caring for our planet. At a time when it is desperately needed, this initiative provides a clear opportunity for U.S. leadership."

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## **ARUN BARAL**

CEO, HARVESTPLUS

"Today, the world is facing an alarming global emergency of hunger and malnutrition. Micronutrient deficiency alone affected more than two billion people before the COVID-19 pandemic and is responsible for a host of health problems – including stunting, anemia, sight impairment, and even death. As we aim to build back better, more resilient food systems, we must commit to making all available foods as nutritious as possible. The bold actions identified in Nourish the Future such as improvement of the nutrient density of staples through biofortification would be a transformational step forward."

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## **REVEREND DAVID BECKMANN**

CHAIR OF THE CIRCLE OF PROTECTION, BREAD FOR THE WORLD

"Over the past three decades, the world has cut hunger, poverty, and malnutrition in half. This is clear evidence that God is moving in our time. We can end hunger and malnutrition in our lifetimes, and Nourish the Future could be the next bold chapter of that story."

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## **ROBERT BLACK**

PROFESSOR OF INTERNATIONAL HEALTH, JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH

"If you want to know how well health systems are functioning, look at how well – or how poorly – a population is nourished. With a modest investment in the plan articulated by Nourish the Future, the United States can lead the global effort to improve health systems so they can effectively deliver for all."

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## **DR. JOANNE CARTER**

EXECUTIVE DIRECTOR RESULTS/RESULTS EDUCATIONAL FUND

"Despite proven solutions to prevent and treat malnutrition – including vitamin A supplementation, prenatal vitamins, breastfeeding support, and emergency therapeutic foods – it remains the leading underlying cause of death among young children. Nourish the Future is an ambitious proposal to invest in what works, set bold targets, and relentlessly track progress in ensuring a generation of children and women have access to the nutrients and services that are the foundation for their health and future."

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## **EUGENE CHO**

CEO, BREAD FOR THE WORLD

"The world continues to face catastrophic consequences with the rise of global hunger and malnutrition because of conflict, climate change, and the impacts of COVID-19. Through Nourish the Future, the United States has the chance to be a better partner with countries and communities in our shared mission to end hunger and contribute to enriching people's dignity through better nutrition. It is a hope and an answer to prayer for children, families, and communities living with hunger and malnutrition around the world."

## **LEITH GREENSLADE**

COORDINATOR, EVERY BREATH COUNTS COALITION, FOUNDER AND CEO OF JUSTACTION

“For organizations truly committed to reducing malnutrition-related deaths among children, there are only three priorities – reduce wasting, low birth weight, and preterm birth. If all stakeholders aligned around these three priorities, more than two million child deaths could be prevented each year, especially from infections like pneumonia.”

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## **SPENCER KIRK**

CEO, KIRK HUMANITARIAN

“Nourish the Future is a critical plan to ensure that every mother is supported through pregnancy and has the best chance at giving her child a safe and healthy start to life. Multiple micronutrient supplements provide the essential building blocks for pregnant women and their children to thrive. Together with the other Power 4 interventions, these supplements can transform the health and well-being of women, children, and communities.”

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## **DAVID LANE**

FORMER U.S. AMBASSADOR TO THE UN AGENCIES FOR FOOD AND AGRICULTURE

“Nourish the Future builds on a long history of hunger and nutrition investments by the United States, and it would be a valuable addition to its current agenda. In my experience, investment in nutrition boosts many other U.S. investments, because, when a mother and her child are able to access nutritious food and lifesaving care, that reaps benefits for generations to come – mentally, physically, socially, and economically.”

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## **MARIE MCGRATH**

TECHNICAL DIRECTOR, EMERGENCY NUTRITION NETWORK

“Child malnutrition remains among the most persistent of global challenges – how can this still be? Nourish the Future provides a pathway for the U.S. to lead by example and catalyze a global effort to strengthen food, health, and social protection systems to prevent and treat malnutrition. If there is anything the COVID-19 crisis has taught us, it is that we are all in this together. Nourishing our world is critical to fostering resilient individuals and communities. The healthy growth and development of generations of children depend on us acting together now.”

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## **WILL MOORE**

CEO, THE ELEANOR CROOK FOUNDATION

“No child should die from malnutrition when we have the tools to stop it. Affordable, effective solutions have long-existed but are still waiting to be deployed. We can do so much more. COVID-19 has underscored that we need a safety net below which no human on earth should be able to fall and Nourish the Future is a smart plan that can provide just that.”

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## **KATHY SPAHN**

PRESIDENT & CEO, HELEN KELLER INTERNATIONAL

“Children and families living in poverty are in crisis. After decades of progress in reducing malnutrition, the world faces the threat of a catastrophic backslide, resulting in loss of potential for an entire generation. Yet, we know what needs to be done. Nourish the Future provides a smart, evidence-based plan, leveraging some of the most cost-effective tools in global health to deliver results. Together, we can not only reduce child deaths, but ensure that the world's most vulnerable children grow up nourished, healthy, and strong. We must act now.”



## **JOEL SPICER**

PRESIDENT AND CEO NUTRITION INTERNATIONAL

"The world's response to COVID-19 has not only revealed massive inequity in access to vaccines, but a growing immunity gap between high-income and lower-income countries. The cornerstone of any health system is the immune system strength of the people in it — and Nourish the Future could help build a firewall of immunity in hard hit areas around the world. Nutrition International focuses on high-impact, low-cost programming at scale. It is why we are global leaders in vitamin A distribution. It is why we focus on women, adolescents and children. And it is why we support this initiative."

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## **BLYTHE THOMAS**

INITIATIVE DIRECTOR, 1,000 DAYS, AN INITIATIVE OF FHI SOLUTIONS

"The nutrition that mothers and children receive in the 1,000-day window has a profound impact on a child's ability to grow, learn, and thrive. The good news is that malnutrition in the first 1,000 days is almost entirely preventable. Nourish the Future offers a sustainable solution to deploy high-impact interventions at scale that will not only save children today but continue to reduce cases of malnutrition for years to come. The time is now."

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## **MARK VISO**

PRESIDENT AND CEO, FOOD FOR THE HUNGRY

"Optimal nutrition is essential and is the foundation for every healthy, productive human life. Targeted investments to combat undernutrition in women and young children can effectively break the cycle that traps many of the world's marginalized and vulnerable populations in poverty. Nourish the Future does just that; it provides a robust, targeted strategy to ensure that future generations of young people are not left behind due to the preventable consequences of malnutrition. With collective and urgent global action – combined with U.S. political and diplomatic leadership – the world can make historic progress in reducing maternal and child deaths worldwide."

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## **REP. ANDY KIM**

(D-NJ)

"Global malnutrition is one of the greatest challenges of our time. But the good news is that we have the tools to end it. Nourish the Future presents a bold vision for the U.S. to fight hunger and malnutrition in the highest-burden countries. The plan is sophisticated in its simplicity, and we as a country must assert global leadership to see this plan through and save millions of children's lives."

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## **REP. CHRIS STEWART**

(R-UT)

"As a parent, I am genetically wired to protect and care for my children. These are all universal values we can agree on – whichever side of the aisle you sit on. And that translates to policymaking and making sure we leverage the tools and know-how at our disposal to end global hunger and malnutrition. Every dollar we spend towards evidence-based programs such as those endorsed in Nourish the Future is a dollar well-spent. We must endeavor to fulfill our responsibility as a global leader in this important effort."

## **DR. TEDROS ADHANOM GHEBREYESUS**

DIRECTOR-GENERAL, WORLD HEALTH ORGANIZATION

"Millions of children die every year from malnutrition. We know how to prevent these deaths but we just haven't done it. Nourish the Future is working to strengthen global health and food systems to combat malnutrition, using simple, proven, cost-effective interventions."

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## **ARI JOHNSON, MD**

CHIEF EXECUTIVE OFFICER, MUSO

"More than three million children die each year from malnutrition because we have failed to deliver essential health interventions on time. We can no longer delay our response to this grave injustice, only worsened by COVID-19. Nourish the Future lays out a bold vision for stronger health care systems, helmed by community health workers with the support they need to reach children early, in the critical first 1,000 days. Now is the time for us to commit."

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## **JOHANN SWINNEN**

DIRECTOR GENERAL, IFPRI

"Transforming food systems to make them healthier, more equitable, and more sustainable requires accelerating investments in value chains for nutritious foods, fostering climate-smart agriculture that supports gender and youth equity, and stimulating consumers to shift towards consumption of sustainable and healthy diets. Nourish the Future outlines clear and evidence-based recommendations for achieving this at local, national, and global levels in partnership with affected communities."

# MALNUTRITION

## THE LEADING CAUSE OF CHILD DEATHS<sup>1</sup>

### A CHILD DIES OF MALNUTRITION EVERY 11 SECONDS.

Although malnutrition is entirely preventable, it remains the number one cause of child deaths, claiming 3.1 million children's lives each year. The vast majority of these children die in Sub-Saharan Africa and South Asia.<sup>2</sup>

When it comes to saving the lives of these children, proven solutions to prevent and treat deadly malnutrition have long existed. Prenatal vitamins, breastfeeding support, vitamin A supplementation (VAS), and emergency therapeutic foods are some of the most cost-effective tools available in global health and development. However, these essential nutrition interventions have extremely low rates of coverage across most low- and middle-income countries (LMICs) and do not reach the majority of infants, children, young girls, and women who need them.

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This document outlines how the Biden administration could secure historic victories in the fight to end global malnutrition<sup>3</sup> and child deaths. It is a proposal to scale-up the most lifesaving nutrition interventions in the hardest hit countries.

This strategy could reduce severe malnutrition<sup>3</sup> in focus countries by up to 50 percent and reduce child deaths in those countries by up to 11 percent, one of the most dramatic reductions since 1990.

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Today, less than one percent of total global development assistance is spent on high-impact nutrition interventions.<sup>4</sup> In 2020, only \$150 million of U.S. global health investments was allocated to prevent and treat malnutrition—0.4 percent of U.S. foreign assistance.<sup>5,6,7</sup> This has led to significant gaps in coverage of lifesaving nutrition services, even as coverage of other complementary health services has increased. With strong political leadership and a modest investment, the United States has the opportunity to lead a global movement to dramatically reduce malnutrition around the world and save millions of lives.



<sup>1</sup> Globally, malnutrition is the underlying cause of about 45 percent of deaths in children under five years of age. Malnourished children, particularly those with severe acute malnutrition, have a higher risk of death from common childhood illnesses such as diarrhea, pneumonia, and malaria. <https://www.who.int/news-room/fact-sheets/detail/children-reducing-mortality#:~:text=Malnourished%20children%20particularly%20those%20with,under%205%20years%20of%20age>.

<sup>2</sup> R. E. Black et al., "Maternal and Child Malnutrition: Executive Summary of The Lancet Maternal and Child Nutrition Series," *The Lancet* (2013), <https://www.thelancet.com/pb/assets/raw/Lancet/stories/series/nutrition-eng.pdf>.

<sup>3</sup> M. Kerac et al., "Severe Malnutrition: Thinking Deeply, Communicating Simply," *BMJ Global Health* 5 (2020): e003023, <https://gh.bmj.com/content/5/11/e003023>.

<sup>4</sup> "The Fight Against Malnutrition: Commitments and Financing," in 2020 Global Nutrition Report, <https://globalnutritionreport.org/reports/global-nutrition-report-2018/the-fight-against-malnutrition-commitments-and-financing/>.

<sup>5</sup> By contrast, last year the United States spent \$8.2 billion to combat AIDS, malaria, and tuberculosis—all of which are directly linked to and exacerbated by malnutrition.

<sup>6</sup> "U.S. Global Health Budget: Overview [fact sheet]," Kaiser Family Foundation, March 2020, <https://www.kff.org/global-health-policy/fact-sheet/breaking-down-the-u-s-global-health-budget-by-program-area/>.

<sup>7</sup> \$150 million refers to the USAID global nutrition subaccount's Fiscal Year 2020 appropriation to implement nutrition programs around the world, representing approximately 1 percent of total USAID global health resources and 0.4 percent of total U.S. foreign assistance. Total U.S. resources for nutrition-specific programs across accounts was \$124 million in Fiscal Year 2018 (the most recent year with available data)—less than 0.5 percent of total U.S. foreign assistance in 2018. See "Donor: United States of America," *Global Nutrition Report*, accessed May 24, 2021, <https://globalnutritionreport.org/resources/nutrition-growth-commitment-tracking/united-states-of-america/>; "Breaking Down the U.S. Global Health Budget by Program Area," *Global Health Policy*, May 10, 2021, <https://www.kff.org/global-health-policy/fact-sheet/breaking-down-the-u-s-global-health-budget-by-program-area/>; and "Map of Foreign Assistance: Worldwide," *ForeignAssistance.gov*, last modified May 14, 2021, <https://foreignassistance.gov/explore>.





The consequences of malnutrition are significant. This condition deprives bodies of essential resources, weakens immune systems, and leaves young children up to 15 times more likely to die from common infectious diseases, including COVID-19.<sup>8, 9, 10, 11</sup> Of the hundreds of millions of children who suffer from malnutrition each year, 3.1 million will die.<sup>12, 13, 14</sup> Many others will survive but suffer lifelong consequences. The 1,000-day window between the start of a woman's pregnancy and her child's second birthday is a period of rapid cognitive development as over a million new neural connections are established in a child's brain every second. Malnutrition during this time stunts physical growth and brain development, causing irreversible damage.<sup>15</sup> Compared to their well-nourished peers, malnourished children will complete fewer years of school, earn less income as adults, and be at a higher risk for noncommunicable diseases such as cancers, cardiovascular diseases, obesity, and diabetes.<sup>16</sup> Today, one in four of the world's children are permanently stunted by malnutrition, both cognitively and physically.

**"STUNTED  
CHILDREN TODAY  
WILL LEAD  
TO STUNTED  
ECONOMIES  
TOMORROW."**

- PRESIDENT OF THE  
AFRICAN DEVELOPMENT  
BANK AKINWUMI ADESINA,  
A LONGTIME CHAMPION OF  
NUTRITION INVESTMENTS.<sup>17</sup>

<sup>8</sup> M. J. Chisti et al., "Pneumonia in Severely Malnourished Children in Developing Countries: Mortality Risk, Aetiology, and Validity of WHO Clinical Signs; A Systematic Review," *Tropical Medicine and International Health* 10 (2009): 1173-89, doi:10.1111/j.1365-3156.2009.02364.x.

<sup>9</sup> E. Mertens and J. L. Peñalvo, "The Burden of Malnutrition and Fatal COVID-19: A Global Burden of Disease Analysis," *Frontiers in Nutrition* 7 (2021): 619850, doi:10.3389/fnut.2020.619850.

<sup>10</sup> R. Kulkarni et al., "Severe Malnutrition and Anemia Are Associated with Severe COVID in Infants," *Journal of Tropical Pediatrics* 67, no. 1 (2020): fmaa084, doi:10.1093/tropej/fmaa084.

<sup>11</sup> C. D. Bourke, J. A. Berkley, and A. J. Prendergast, "Immune Dysfunction as a Cause and Consequence of Malnutrition," *Trends in Immunology* 37, no. 6 (2016): 386-98, <https://doi.org/10.1016/j.it.2016.04.003>.

<sup>12</sup> "Joint Child Malnutrition Estimates," World Health Organization, accessed March 15, 2021, <https://www.who.int/data/gho/data/themes/topics/joint-child-malnutrition-estimates-unicef-who-wb>.

<sup>13</sup> R. E. Black et al., "Maternal and Child Malnutrition: Executive Summary."

<sup>14</sup> Malnutrition is the underlying cause of 45 percent of child deaths annually, per the Lancet Series 2013.

<sup>15</sup> "Why 1,000 Days," 1,000 Days, accessed March 16, 2021, <https://thousanddays.org/why-1000-days/>.

<sup>16</sup> "Malnutrition," World Health Organization, April 1, 2020, [www.who.int/news-room/fact-sheets/detail/malnutrition](http://www.who.int/news-room/fact-sheets/detail/malnutrition).

<sup>17</sup> "Remarks by Dr. Akinwumi A. Adesina, President of the African Development Bank Group at TICAD7: Ending Malnutrition in Africa: Towards Nutrition for Growth 2020 and Beyond; Yokohama, August 29, 2019," Groupe de la Banque africaine de développement, September 2, 2019, <https://www.afdb.org/fr/news-and-events/speeches/remarks-dr-akinwumi-adesina-president-african-development-bank-group-ticad7-ending-malnutrition-africa-towards-nutrition-growth-2020-and-beyond-yokohama-august-29-2019-29694>.



Girls and women are disproportionately impacted by malnutrition. Women often eat last and least, even though they have greater nutritional needs. This reality—coupled with cultural norms around diets, food access, early marriage, and schooling—make adolescent girls particularly vulnerable to malnutrition.<sup>18</sup> Inadequate nutrition at a young age can undermine girls' educational attainment and, later in life, income.<sup>19</sup> Moreover, women who suffer from malnutrition are also more likely to give birth to small and malnourished babies, advancing an intergenerational cycle of poverty and inequality.<sup>20</sup> Anemia continues to impact over two billion people—most of them women—leading to learning deficits and poor school performance in children, and lower work productivity in women.<sup>21</sup> These losses accrue to both individuals and society, costing the global economy \$3.5 trillion in lost productivity and healthcare costs every year.<sup>22</sup> Nourishing girls and women is critical to fully supporting their health, education, development, and well-being.

The COVID-19 pandemic threatens to dramatically increase rates of malnutrition around the world. Experts predict pandemic-related disruptions to food and health systems will cause up to a 50 percent rise in global malnutrition.<sup>23</sup> In many parts of the world, malnutrition related to the pandemic is projected to kill more people—especially children—than COVID-19 itself.<sup>24</sup> A rise in malnutrition not only jeopardizes decades of progress in the fight against hunger, malnutrition, and preventable child deaths; it also undermines global health security. Delivery of high-impact nutrition interventions is a key strategy to building individual and population-level immunity against infectious diseases and other health, social, and economic shocks.<sup>25</sup>



<sup>18</sup> Parul Christian and Emily R. Smith, "Adolescent Undernutrition: Global Burden, Physiology, and Nutritional Risks," *Annals of Nutrition & Metabolism* 72, no. 4 (2018): 316–28, <https://www.karger.com/Article/Fulltext/488865#>.

<sup>19</sup> "Briefing for the Foreign, Commonwealth, and Development Office: Nutrition Critical: Why the UK Must Act Now [brochure]," Save the Children UK, 2021.

<sup>20</sup> *Ibid.*

<sup>21</sup> "Global Anaemia Prevalence and Number of Individuals Affected," World Health Organization, accessed April 2, 2021, [https://www.who.int/vmnis/anaemia/prevalence/summary/anaemia\\_data\\_status\\_t2/en/](https://www.who.int/vmnis/anaemia/prevalence/summary/anaemia_data_status_t2/en/).

<sup>22</sup> "The Cost of Malnutrition: Why Policy Action Is Urgent," Global Panel on Agriculture and Food Systems for Nutrition, 2016, <https://www.glopan.org/cost-of-malnutrition/>.

<sup>23</sup> T. Robertson et al. "Early Estimates of the Indirect Effects of the COVID-19 Pandemic on Maternal and Child Mortality in Low-Income and Middle-Income Countries: A Modelling Study," *Lancet Global Health* 8, no. 7 (2020): e901–e908. doi:10.1016/S2214-109X(20)30229-1.

<sup>24</sup> "The Hunger Virus: How Covid-19 Is Fuelling Hunger In A Hungry World," Oxfam Media Briefing, July 9, 2020, <https://oxfamlibrary.openrepository.com/bitstream/handle/10546/621023/mb-the-hunger-virus-090720-en.pdf>.

<sup>25</sup> Bourke, Berkley, and Prendergast, "Immune Dysfunction as a Cause and Consequence of Malnutrition."





Nutrition is a powerful booster shot for U.S. investments across global health and development. Such interventions will make vaccines more effective;<sup>26</sup> ensure children are significantly less likely to die from common diseases like measles, malaria, and pneumonia;<sup>27, 28, 29</sup> enrich staple foods with key nutrients and make healthy foods more accessible;<sup>30</sup> improve educational outcomes and workplace productivity;<sup>31</sup> promote gender equality;<sup>32</sup> and reduce the rapid spread of heart disease, diabetes, and other noncommunicable diseases.<sup>33</sup>

Now is the time to finally bring the most powerful nutrition interventions to scale in the countries that need them most. In the short term, the COVID-19 response in LMICs must include measures to combat spikes in deadly malnutrition. This will save lives today and prevent devastating generational consequences. For the longer term—to build back better and prepare for future pandemics—our health and food systems must finally begin to address malnutrition head-on.

<sup>26</sup> R. R. Penkert et al., "Influences of Vitamin A on Vaccine Immunogenicity and Efficacy," *Frontiers in Immunology* 10 (2019): 1576. doi:10.3389/fimmu.2019.01576.

<sup>27</sup> Chisti et al., "Pneumonia in Severely Malnourished Children."

<sup>28</sup> E. Mayo-Wilson et al., "Vitamin A Supplements for Preventing Mortality, Illness, and Blindness in Children Aged Under 5: Systematic Review and Meta-Analysis," *British Medical Journal* 343 (2011): d5094, doi:10.1136/bmj.d5094.

<sup>29</sup> Bourke, Berkley, and Prendergast, "Immune Dysfunction as a Cause and Consequence of Malnutrition."

<sup>30</sup> "Improving People's Health By Fortifying Staple Foods and Condiments with Key Micronutrients," *Nutrition International*, accessed April 2, 2021, <https://www.nutritionintl.org/our-work/how-we-help/fortification/>.

<sup>31</sup> J. Hoddinott et al., "Adult Consequences of Growth Failure in Early Childhood," *American Journal of Clinical Nutrition* 98, no. 5 (2013): 1170–78, <https://doi.org/10.3945/ajcn.113.064584>.

<sup>32</sup> "Nourishing Gender Equality: How Nutrition Interventions Are an Underleveraged Tool in the Fight for Women's Rights," 1,000 Days, 2020, <https://thousanddays.org/wp-content/uploads/6.3.20-Womens-Empowerment-WEB.pdf>.

<sup>33</sup> F. Branca et al., "Transforming the Food System to Fight Non-Communicable Diseases," *British Medical Journal* 364 (2019): l296, <https://doi.org/10.1136/bmj.l296>.



# THE POWER 4 PACKAGE

While there is no one-size-fits-all solution to malnutrition, four health systems interventions have been identified as the highest impact and most cost-effective interventions available to combat deadly malnutrition: prenatal vitamins, breastfeeding support, vitamin A supplementation, and emergency therapeutic food. Collectively, these four interventions are known as the Power 4, a package identified by Johns Hopkins University—and previously recognized by *The Lancet*<sup>34</sup> and the World Bank<sup>35</sup>—to be among the most cost-effective and lifesaving nutrition interventions ready to be scaled today.



1

## PRENATAL VITAMINS FOR PREGNANT WOMEN

Over 40 percent of pregnant women globally suffer from anemia and, in some countries, 80 percent of women have at least two micronutrient deficiencies at the outset of pregnancy.<sup>36</sup> Multiple micronutrient supplementation (MMS) combines 15 essential vitamins and minerals in a single daily pill and significantly improves birth outcomes and children's survival in the first 1,000 days of life. Despite the proven benefits of providing MMS during pregnancy, most women in LMICs do not have access to these extremely low-cost supplements.<sup>37</sup>

Most women do not have access to these extremely low-cost supplements.

2

## BREASTFEEDING SUPPORT FOR MOTHERS

Babies get the best start in life when they are fed only breast milk until six months old and continue breastfeeding until at least age two. Though breast milk is proven to protect newborns from malnutrition, infections, disease, and death, only 41 percent of babies around the world are exclusively breastfed.<sup>38</sup> Women who would like to breastfeed often cannot access the support and information they need to meet their breastfeeding goals. Skilled breastfeeding counseling can help them do so and protect vulnerable infants from becoming malnourished.<sup>39</sup> *The Lancet* reports that achieving optimal breastfeeding practices globally would result in the prevention of 820,000 child deaths and 20,000 breast cancer deaths each year.<sup>40</sup>



One-to-one and group breastfeeding counseling help provide mothers with the support they need to breastfeed.

<sup>34</sup> "Maternal and Child Undernutrition Progress," *The Lancet*, accessed April 2, 2021, <https://www.thelancet.com/series/maternal-child-undernutrition-progress>.

<sup>35</sup> Meera Shekar, Jakub Kakiyete, Julia Dayton Eberwein, and Dylan Walters, *An Investment Framework for Nutrition: Reaching the Global Targets for Stunting, Anemia, Breastfeeding, and Wasting, Directions in Development* (Washington, DC: World Bank, 2017), doi:10.1596/978-1-4648-1010-7.

<sup>36</sup> "Maternal and Child Undernutrition Progress," *The Lancet*.

<sup>37</sup> "Why Multiple Micronutrient Supplements (MMS)," *Kirk Humanitarian*, accessed April 2, 2021, <https://kirkhumanitarian.org/why-mms/>.

<sup>38</sup> "Breastfeeding," *World Health Organization*, accessed April 2, 2021, [https://www.who.int/health-topics/breastfeeding#tab=tab\\_1](https://www.who.int/health-topics/breastfeeding#tab=tab_1).

<sup>39</sup> Access to skilled breastfeeding counselling should be part of a suite of comprehensive supportive breastfeeding policies, including paid family leave, breastfeeding-friendly workplace policies, and improved linkages between health facilities and communities.

<sup>40</sup> "Maternal and Child Undernutrition Progress," *The Lancet*



3



## VITAMIN A SUPPLEMENTATION (VAS)

Nearly half of all children under five in sub-Saharan Africa and southern Asia suffer from vitamin A deficiency, which weakens the immune system.<sup>41</sup> Maternal vitamin A deficiency is also a problem in many countries, resulting in night blindness during pregnancy and babies born vitamin A-deficient.<sup>42</sup> Reaching young children with two high-doses of vitamin A supplements every year is one of the most cost-effective ways to protect children from blindness, diarrhea, and other fatal illnesses. It can reduce a child's overall risk of death by up to 24 percent.<sup>43</sup> One vitamin A dose costs just two cents to manufacture and is typically delivered through existing routine health services, annual health events, and/or vaccination campaigns.<sup>44</sup>

Child receives vitamin A supplementation (VAS). Two drops twice per year on a child's tongue cost just two cents to manufacture.

4



## READY-TO-USE THERAPUTIC FOOD (RUTF) FOR TREATMENT OF WASTING

Should prevention fail, RUTF (often known as Plumpy'Nut)—a relatively simple paste made of peanuts, powdered milk, and multivitamins—is a lifesaving medical food that can bring severely malnourished children back from the brink of death in a matter of weeks. The cost of this treatment is less than a dollar a day. Unfortunately, fewer than one in four wasted children in the world today have access to treatment.<sup>45</sup>



RUTF is given to children who suffer from wasting, bringing them back from the brink of death over a six-week period.

In the past 30 years, the United States has led a child survival revolution that has reduced preventable child deaths around the world by 56 percent.<sup>46</sup> Providing development assistance has played a transformational role in supporting countries to build and strengthen primary healthcare systems. Now, high-impact nutrition interventions must be integrated into these systems.

Over the next decade, the United States can be the country that makes hunger and malnutrition history. As President Biden said on his inauguration day: "Ending hunger and malnutrition at home and around the world is consequential. If we do nothing today, food insecurity will loom as an even larger and bigger threat tomorrow. You're fostering a world that is more just and peaceful."<sup>47</sup> No child should die from malnutrition when we have the tools to stop it. Every child has a right to survival. And where human misery festers, so too does anger, instability, and violence. Eliminating severe hunger and malnutrition would be an unparalleled advancement in the fight for universal human dignity while promoting peace among communities and nations. It will require renewed investment, energy, and optimism from the whole world, but this is a movement that the United States is uniquely placed to lead.

<sup>41</sup> "Vitamin A Deficiency," UNICEF.

<sup>42</sup> "Improving Child Survival Rates with Twice-Yearly Vitamin A Supplementation: 1994–Present," Nutrition International, accessed April 2, 2021, <https://www.nutritionintl.org/project/vitamin-a-supplementation/>.

<sup>43</sup> "Vitamin A Deficiency," UNICEF, accessed April 2, 2021, <https://data.unicef.org/topic/nutrition/vitamin-a-deficiency/>.

<sup>44</sup> "Improving Child Survival Rates with Twice-Yearly Vitamin A Supplementation," Nutrition International, February 3, 2021, <https://www.nutritionintl.org/project/vitamin-a-supplementation/>.

<sup>45</sup> "Simplified Approaches for the Treatment of Child Wasting: An Executive Briefing from a Technical Consultation between the World Health Organization, the Office of the United Nations High Commissioner for Refugees, the United Nations Children's Fund, and the World Food Programme, 26–27 March 2019, Geneva, Switzerland," World Health Organization, <https://www.who.int/nutrition/events/2019-consultation-simplified-treatment-childwasting-26to27march/en/>.

<sup>46</sup> UNICEF, WHO, World Bank Group, and United Nations, "Levels & Trends in Child Mortality: Report 2019," United Nations Inter-agency Group for Child Mortality Estimation, September 2019, <https://www.unicef.org/reports/levels-and-trends-child-mortality-report-2019>.

<sup>47</sup> "Tom Hanks Hosts 'Celebrating America,' a Program Honoring the Inauguration of President Joe Biden," YouTube video, January 20, 2021 ["Celebrating Americans Who Feed Us" at 1:01:18 mark], <https://www.youtube.com/watch?v=SpONYPuckY8>.



# OVERVIEW

## OF NOURISH THE FUTURE

As President Biden has said, **“Nutrition is the foundation—the basic, fundamental foundation upon which every child’s future is built.”**<sup>48</sup> Regardless of where they are born, every child has a right to the basic food and the nutrients they need to survive and thrive.

Nourish the Future is a proposal for a five-year, U.S.-led effort to link and strengthen global health and food systems as the main vehicles for combating malnutrition. But these systems generally operate in silos and have failed, to date, to consistently prioritize and scale high-impact nutrition interventions. In most countries, food systems and health systems have been further weakened and strained by COVID-19. Nourish the Future offers a strategy to strengthen systems and integrate existing, siloed, vertical programming while working in partnership with country governments (accelerating national nutrition plans), affected communities, and local and international organizations.

Nourish the Future would improve the lives of at least 500 million women and children while reducing child deaths in target countries by up to 11 percent.<sup>49</sup> By contributing \$887 million per year—one-third of the amount Americans spend annually on Halloween candy—the United States can cut severe malnutrition by half in nine countries, save the lives of two million children, and improve the school performance of 18 million children. Over five years, this effort can generate a minimum of \$56 billion in economic returns.<sup>50</sup>



## NOURISH THE FUTURE’S FIVE YEAR PROPOSAL



Improves the lives of  
**500 million**  
women and children



**2 million**  
childrens’ lives saved



Cuts severe malnutrition by  
**50 percent**  
in nine countries



Generates at least  
**\$56 billion**  
in economic returns by 2026



Reduces child deaths by  
**11 percent**  
in nine countries

<sup>48</sup> “VP Joe Biden’s Speech at 15th Annual Gala to End Hunger,” YouTube video, December 19, 2018 [4:41 mark], <https://www.youtube.com/watch?v=3DuiFkvD29c>.

<sup>49</sup> Includes child mortality and stillbirths. [placeholder - link to output annex]

<sup>50</sup> Power 4 Analysis, Johns Hopkins University (to come)

An initiative to fight global malnutrition would directly address each of the “four crises” articulated by the Biden administration. First, it would fortify the global COVID-19 response, saving lives in the short run and improving future pandemic preparedness. Second, nutrition boosts economies and builds “gray-matter infrastructure” by improving cognitive development, education, and lifetime earnings.<sup>51</sup> Third, there is clear evidence that climate change is exacerbating malnutrition across vulnerable populations,<sup>52</sup> particularly female small shareholder farmers and their families.<sup>53</sup> A just and equitable response to climate change must ensure that the most affected communities can still feed their families and keep their children alive. The millions of women and children in LMICs who will suffer the most from the nutritional impacts of the climate crisis are also those who have contributed the least to climate change. Efforts to fight climate-drive increases in severe malnutrition must be a core component of any just and equitable global response to climate change. Finally, malnutrition drives lifelong inequality and disproportionately affects people of color around the world. Nearly all cases of severe malnutrition occur in Africa, Asia, and South America—with malnutrition being concentrated within marginalized communities in these regions.<sup>54</sup>

## An Initiative to Fight Global Malnutrition

### DIRECTLY ADDRESSING THE “FOUR CRISES” ARTICULATED BY THE BIDEN ADMINISTRATION



01

#### Fortify the Global COVID-19 Response

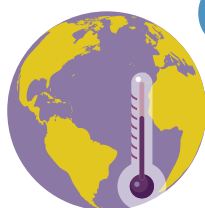
Saving lives in the short run and improving future pandemic preparedness.



02

#### Boost Economies

Nutrition boosts economies and builds “gray-matter infrastructure” by improving cognitive development, education, and lifetime earnings.



03

#### Fight Climate Change

The millions of women and children in LMICs who will suffer the most from the nutritional impacts of the climate crisis are also those who have contributed the least to climate change. Efforts to fight climate-drive increases in severe malnutrition must be a core component of any just and equitable global response to climate change.



04

#### Equality for All

Finally, malnutrition drives lifelong inequality and disproportionately affects people of color around the world. Nearly all cases of severe malnutrition occur in Africa, Asia, and South America—with malnutrition being concentrated within marginalized communities in these regions.

<sup>51</sup> Proper nutrition is a key input in broader early child development programming, requiring a holistic balance of nurturing, health, nutrition, security and safety, and responsive caregiving. Maureen M. Black et al., “Early Childhood Development Coming of Age: Science through the Life Course,” *The Lancet* 389, no. 10064 (2017): 77–90.

<sup>52</sup> University of Vermont, “Climate Change is Hurting Children’s Diets, Global Study Finds: Rising Temperatures Contribute to Child Malnutrition and Reduced Diet Quality,” *ScienceDaily*, January 14, 2021, [www.sciencedaily.com/releases/2021/01/210114085436.htm](https://www.sciencedaily.com/releases/2021/01/210114085436.htm).

<sup>53</sup> B. A. Swinburn et al., “The Global Syndemic of Obesity, Undernutrition, and Climate Change: The Lancet Commission Report,” *The Lancet Commissions* 393, no. 10173 (2019): 791–846, [https://doi.org/10.1016/S0140-6736\(18\)32822-8](https://doi.org/10.1016/S0140-6736(18)32822-8).

<sup>54</sup> “Joint Child Malnutrition Estimates,” World Health Organization, 2020.

## Nourish the Future

### PROPOSES TWO MUTUALLY REINFORCING APPROACHES:

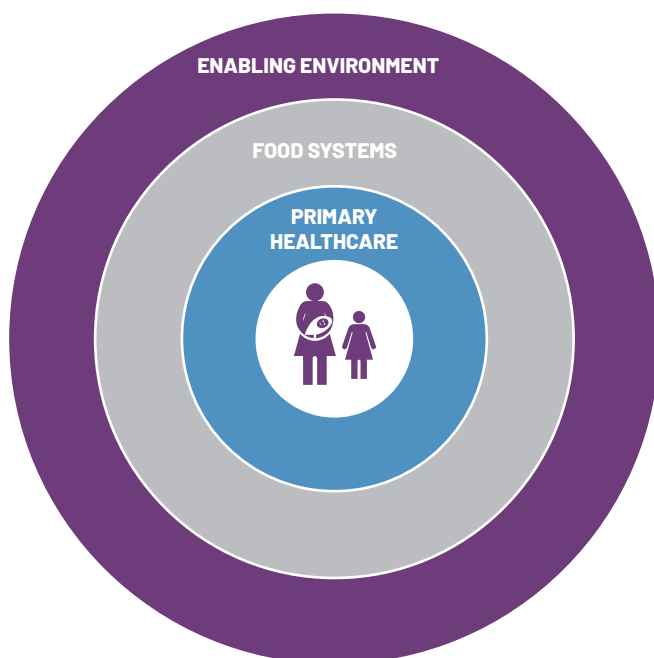


**Improving Nutrition  
Through Health Systems**



**Improving Nutrition  
Through Food Systems**

**THIS DUAL APPROACH TO REDUCING MALNUTRITION BUILDS THREE CIRCLES OF PROTECTION AROUND MOTHERS, CHILDREN, AND THEIR COMMUNITIES:**



**The Inner Circle:**  
**Primary Healthcare Interventions**  
Protects children and mothers directly through primary healthcare interventions such as prenatal vitamins, breastfeeding support, vitamin A supplementation, and treatment for severe malnutrition.

**The Middle Circle:**  
**Food Systems Interventions**  
Protects the communities where children and mothers live, primarily through food systems interventions that increase access to healthy foods, improve food safety, and reduce food loss.

**The Outer Circle:**  
**Enabling Environment**  
Protects children, mothers, and communities by improving the enabling environment through creative financing, strong governance, research, innovation, and reform.



**This plan reflects the input of over 100 experts in global nutrition, agriculture, and global health from leading universities, NGOs, think tanks, industry groups, ministries of health, philanthropies, and donor agencies.**

# NOURISH THE FUTURE IMPACT

## OVERARCHING OUTCOMES



Reduce child deaths by  
**UP TO 11%\***



Reduce child wasting by  
**UP TO 50%\***  
(When a child is very thin)



Reduce child stunting by  
**UP TO 15%\*\***  
(When a child is very short for their age)



Improve school performance of  
**18 MILLION CHILDREN\*\***



Reduce anemia by  
**34%\*\***



Generate economic gains of at least  
**\$56 BILLION\*\***

## HEALTH SYSTEMS OUTCOMES\*



Ensure access to prenatal vitamins for  
**175 MILLION MOTHERS**



Support  
**143 MILLION**  
mothers to breastfeed



Provide vitamin A supplementation for  
**122 MILLION**  
young children



**TREAT 31 MILLION**  
children suffering from wasting



Provide young children with  
healthy complementary foods



Partner with U.S. producers to double the global supply of ready-to-use therapeutic foods in the short term, while building local and regional capacity for RUTF in the medium-term.

## FOOD SYSTEMS OUTCOMES\*\*



Reduce neural tube defects by  
**UP TO 50%**



**REACH 125 MILLION**  
consumers with biofortified crops



Reduce goiters  
**BY 74%**



Increase access to sustainable healthy diets for  
**63 MILLION**  
mothers and children<sup>55</sup>

\* Indicates outcome in Nourish the Future focus countries.

\*\* Indicates outcome in Feed the Future focus countries

<sup>55</sup> "Healthy Diet," World Health Organization, accessed May 24, 2021, <https://www.who.int/initiatives/behealthy/healthy-diet..>



# APPROACH ONE:

## IMPROVING NUTRITION THROUGH HEALTH SYSTEMS



Many people think that malnutrition is simply a lack of adequate food. While access to nutritious food is indeed essential, health systems often provide the most targeted and lifesaving nutritional support to vulnerable mothers and children. Scaling up the Power 4 in countries with high rates of malnutrition is particularly important.

Through Nourish the Future, the U.S. government can:

### **I) INTEGRATE THE POWER 4 INTO NATIONAL HEALTH SYSTEMS AND COMMUNITY HEALTH WORKER PROTOCOLS.**

Four crucial, life-saving, and cost-effective interventions are known as the Power 4: prenatal vitamins, breastfeeding support, vitamin A supplementation, and emergency therapeutic food. An additional \$360 million per year for nutrition within USAID's Global Health Programs account would allow for the scale-up of the Power 4 in nine priority USAID countries and save 1.2 million lives.<sup>56, 57</sup>

### **II) SUPPORT UNITED NATIONS LEADERSHIP ON COMBATING WASTING AND SCALING UP THE POWER 4.**

A \$250 million investment in UNICEF's new No Time to Waste initiative would generate an additional \$750 million in matched resources from other donors. This would support UNICEF to work hand-in-hand with country governments to sustainably scale next-generation approaches to preventing, detecting, and treating wasting—the deadliest form of malnutrition—in priority countries. This partnership would include a particular focus on scaling the Power 4.

### **III) LAUNCH THE LIFESAVING FOODS PRODUCTION INITIATIVE, AN EFFORT TO RAPIDLY DOUBLE THE GLOBAL SUPPLY OF READY-TO-USE THERAPEUTIC FOODS (RUTF) USED TO TREAT SEVERE MALNUTRITION.**

In the short term, a \$185 million investment would generate enough therapeutic foods to treat an additional three million severely malnourished children each year (an approximate doubling of global supply),<sup>58</sup> while forging strong private sector partnerships with U.S. farmers and producers. Simultaneously, the U.S. government would support longer-term efforts to expand local and regional production of therapeutic foods by investing in local manufacturers and encouraging partner government investment.



<sup>56</sup> Nourish the Future priority countries are selected based on the burden of malnutrition, previous prioritization by USAID, and population size. The priority countries include: Burkina Faso, Chad, DRC, Ethiopia, Madagascar, Mali, Niger, Nigeria, and Pakistan. See "Country Nutrition Profiles: Middle Africa," Global Nutrition Report, <https://globalnutritionreport.org/resources/nutrition-profiles/africa/middle-africa/>; "Country Nutrition Profiles: Western Africa," Global Nutrition Report, <https://globalnutritionreport.org/resources/nutrition-profiles/africa/western-africa/>; and "Acting On The Call: A Focus on the Journey to Self-Reliance for Preventing Child and Maternal Deaths," USAID, June 2019, [https://www.usaid.gov/sites/default/files/documents/1864/USAID\\_2019\\_AOTC.pdf](https://www.usaid.gov/sites/default/files/documents/1864/USAID_2019_AOTC.pdf).

<sup>57</sup> This proposal outlines an additional \$360 million per year in high-impact nutrition programming, above and beyond the existing \$150 million in annual spending through USAID's global nutrition subaccount.

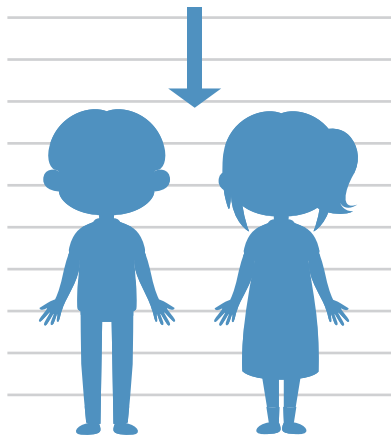
<sup>58</sup> "Ready-to-Use Therapeutic Food: Market Outlook," UNICEF Supply Division, March 2021, <https://www.unicef.org/supply/media/7256/file/RUTF-Supply-Update-March-2021.pdf>.

#### IV) BUNDLE THE POWER 4 NUTRITION INTERVENTIONS WITH “CATCH-UP” CHILD IMMUNIZATION CAMPAIGNS SO NO CHILD IS LEFT BEHIND.

Integrating the delivery of nutrition services with vaccination efforts in LMICs can increase vaccination coverage and effectiveness. Where appropriate, the U.S. government should support efforts to bundle routine nutrition services—including vitamin A supplementation for children, screening for wasting, and maternal nutrition programs—into child immunization campaigns (including campaigns to “catch-up” due to COVID-19 disruptions). Integrating these simple interventions into child vaccination campaigns would bolster the effectiveness of child immunization investments and save millions of additional lives.

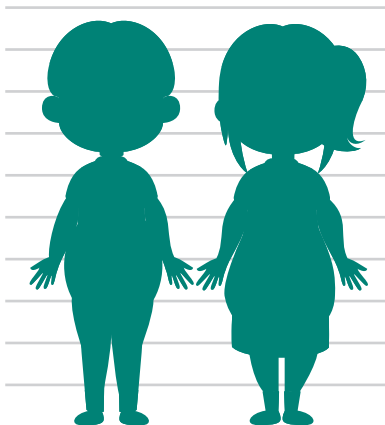


## Different Forms of Malnutrition



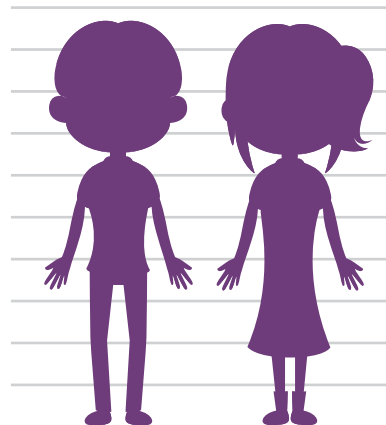
### STUNTING

Stunting refers to a child who is too short for his or her age. These children can suffer severe irreversible physical and cognitive damage that accompanies stunted growth. The devastating effects of stunting can last a lifetime and even affect the next generation.



### OVERWEIGHT

Overweight refers to a child who is too heavy for his or her height. This form of malnutrition results from energy intakes from food and beverages that exceed children's energy requirements. Overweight increases the risk of diet-related noncommunicable diseases later in life.



### WASTING

Wasting refers to a child who is too thin for his or her height. Wasting 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.

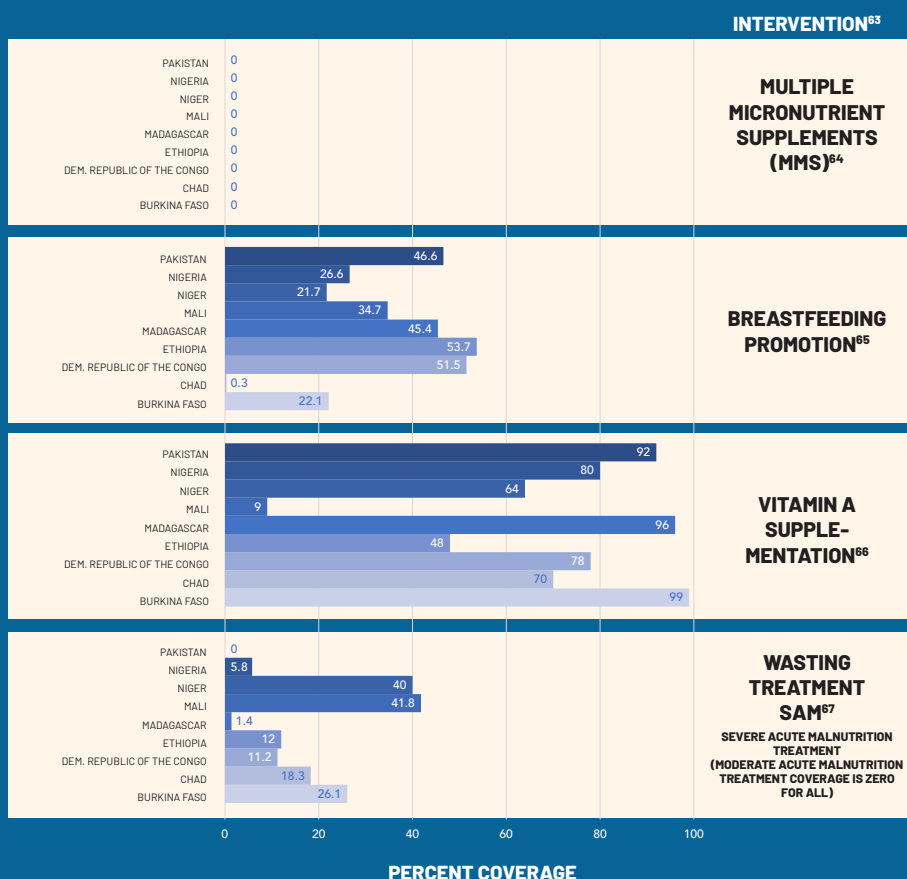
## I) INTEGRATE THE POWER 4 INTO NATIONAL HEALTH SYSTEMS AND COMMUNITY HEALTH WORKER PROTOCOLS.

While there is no one-size-fits-all solution to malnutrition, four health systems interventions are particularly important: prenatal vitamins, breastfeeding support, vitamin A supplementation, and emergency therapeutic food. Collectively, these are known as the Power 4, a package of interventions identified by Johns Hopkins University — and previously recognized by *The Lancet* and the World Bank — to be among the most cost-effective and lifesaving nutrition programs that are ready to be scaled today. Each of these four interventions should be integrated into national primary health systems and delivered by community health workers. According to an analysis by Johns Hopkins University, scaling up the Power 4 in just nine USAID priority countries has the potential to save nearly 1.2 million lives over a five-year period — at a cost as low as \$1,570 per life saved. By comparison, malaria programs — which are also considered highly cost-effective — are priced at an estimated \$3,300 per life saved. The annual cost of the Power 4 package per child is roughly \$23.\*\* Scaling up the Power 4 package can reduce national child mortality rates by up to 11 percent and strengthen a child's immune system, cognitive development, school performance, and overall ability to thrive throughout life. Despite this, coverage of the Power 4 in most countries with high rates of child mortality is astonishingly low (with the exception of VAS in certain contexts, although global coverage of VAS has rapidly declined due to COVID-19 and other factors).

### POWER 4 COVERAGE RATES IN USAID PRIORITY COUNTRIES

**Nourish the Future priority countries should be selected based on the burden of malnutrition, previous prioritization by USAID, and population size.**

**Based on these criteria, the priority countries could include: Burkina Faso, Chad, the Democratic Republic of the Congo, Ethiopia, Madagascar, Mali, Niger, Nigeria, and Pakistan.<sup>63</sup>**



<sup>59</sup> "Maternal and Child Undernutrition Progress," *The Lancet*, accessed April 2, 2021, <https://www.thelancet.com/series/maternal-child-undernutrition-progress>.

<sup>60</sup> Meera Shekar, Jakub Kakietek, Julia Dayton Eberwein, and Dylan Walters, *An Investment Framework for Nutrition: Reaching the Global Targets for Stunting, Anemia, Breastfeeding, and Wasting*, Directions in Development (Washington, DC: World Bank, 2017), doi:10.1596/978-1-4648-1010-7.

<sup>61</sup> Nourish the Future priority countries are suggested based on the burden of malnutrition, previous prioritization by USAID, and population size. Suggested priority countries include: Chad, DRC, Ethiopia, Madagascar, Mali, Niger, Nigeria, and Pakistan. See "Country Nutrition Profiles: Middle Africa," "Country Nutrition Profiles: Western Africa," and "Acting On The Call: A Focus on the Journey to Self-Reliance for Preventing Child and Maternal Deaths" [footnote 36].

<sup>62</sup> The nonprofit organization GiveWell, which evaluates the cost-effectiveness of charitable programs, found malaria projects to be among the most cost-effective at approximately \$3,300 per life saved. See Derek Thompson, "The Greatest Good," *The Atlantic*, June 15, 2015, pt. III, [www.theatlantic.com/business/archive/2015/06/what-is-the-greatest-good/395768/](http://www.theatlantic.com/business/archive/2015/06/what-is-the-greatest-good/395768/).

<sup>63</sup> "The Lives Saved Tool (LST): A Spectrum Module for Creating Child and Maternal Survival Projections [based on the initial work of the Bellagio Child Survival Study Group, the Child Health Epidemiology Reference Group (CHERG), and the International Child Development Steering Group]," accessed May 24, 2021, <https://list.spectrumweb.org/LISTOnlineHelpEnglish/HTML/index.html>.

<sup>64</sup> Current coverage of Iron Folic Acid ranges from 4 percent to 29 percent.

<sup>65</sup> Coverage of breastfeeding promotion isn't typically available. As a proxy, the level of breastfeeding promotion is set by default to equal the percent of children one to five months of age that are exclusively breastfed in the LIST model.

<sup>66</sup> "Vitamin A Deficiency," UNICEF Global Nutrition Database.

<sup>67</sup> UNICEF Global SAM Management Update Tool [NutriDash] and the UNICEF/WHO/WB Joint Child Malnutrition Estimates.

\*\* It costs roughly \$23 to make the power 4 package of interventions available to children in focus countries when scaled to 9 percent coverage with the exception of wasting treatment, scaled to 50 percent.



USAID's Global Health program reportedly reached more than 27 million children with nutrition services in 2019. Though not an inconsequential number, the agency estimates that an additional 9.5 million children's lives—across 25 priority countries—could have been saved between 2012 and 2019 if they had received proper nutrition.<sup>68</sup> Inadequate funding, diffuse allocation of resources,<sup>69</sup> an inconsistent implementation approach, and a lack of dedicated nutrition expertise in many USAID missions restrict the agency's impact in the fight against global malnutrition and child deaths.<sup>70</sup> A more focused strategy centered on scaling up the Power 4, with a focus on country contexts and country government priorities, would build upon recent agency efforts to accelerate progress in the fight against malnutrition. This would allow USAID to deliver a far greater impact on reducing child mortality. Already, USAID has made significant recent improvements to the global nutrition program architecture, such as creating a cross-bureau Nutrition Leadership Council and a Chief Nutritionist position. These developments provide a foundation from which to build an enhanced strategy at the scale required to address malnutrition.

Integrating the Power 4 into health systems will further align essential services and improve a multitude of primary health outcomes, making existing U.S. global health investments go further. Through Nourish the Future, the U.S. government could ensure:

- Vitamin A supplementation is delivered to children ages six to 59 months, twice annually, wherever recommended. The United States can help lead a global effort to make sure supplementation is delivered sustainably through routine child health visits, bolstered by campaigns and child health events where appropriate.
- Community health workers are trained and incentivized to ensure all babies and mothers are screened for malnutrition at the point of care, counseled on-site, or referred for treatment as required.
- All babies presenting to health facilities in the first years of life are screened and treated for wasting and their mothers are weighed monitor maternal health and weight. Mothers of malnourished children should receive nutritional counseling and be sent home with therapeutic foods where appropriate. Severely malnourished children with complications should be referred to hospital-based care.
- Pregnancies are noted whenever a woman interacts with the health system, and expectant mothers are provided with multiple micronutrient supplements (MMS) and referred to antenatal care services.
- Mothers and children in highly food insecure contexts receive supplements and/or nutritious food products that will improve family nutrition, protect children, and reduce poverty. These supplemental foods can also act as an effective incentive to participate in other routine health programs.
- Power 4 products are included in national health system budgets and on essential product lists.

<sup>68</sup> "Acting on the Call: A Focus on the Journey to Self-Reliance for Preventing Child and Maternal Deaths," USAID, 2019, [www.usaid.gov/sites/default/files/USAID\\_2020\\_Horizontal\\_TAG\\_V12\\_508optV3.pdf](https://www.usaid.gov/sites/default/files/USAID_2020_Horizontal_TAG_V12_508optV3.pdf).

<sup>69</sup> In Fiscal Year 2020, USAID's global nutrition subaccount (within the Global Health Programs account) received an appropriation of \$150 million to implement nutrition programs around the world, representing approximately 1 percent of total USAID global health resources and 0.4 percent of total U.S. foreign assistance, see "Breaking Down the U.S. Global Health Budget by Program Area," Global Health Policy, May 10, 2021, <https://www.kff.org/global-health-policy/fact-sheet/breaking-down-the-u-s-global-health-budget-by-program-area>, and "Map of Foreign Assistance: Worldwide," ForeignAssistance.gov, last modified May 14, 2021, <https://foreignassistance.gov/explore>.

<sup>70</sup> "Multi-Sectoral Nutrition Strategy 2014–2025," USAID, May 2014, <https://www.usaid.gov/nutrition-strategy>. This report was released to direct available resources. An analysis of publicly available information about USAID global nutrition obligations and allocations from the period FY 2015–FY 2019 shows that the strategy has not resulted in a coordinated approach to global nutrition across the Agency. In that period, 20 countries consistently received USAID global nutrition funding; 10 of them received less than \$5 million and deployed a variety of approaches to implementation of nutrition programs.



Successful and sustainable Power 4 scale up will require clear targets, strong coordination, and the support of ministries of health and international and local NGOs. Ultimately, aid works best when it is people-to-people—tailored to address local challenges and executed with community insight. No intervention will succeed if it fails to appropriately address a community’s unique challenges, nor will an intervention prove sustainable without community leadership, buy-in, and agency.

## COMMUNITY HEALTH WORKERS’ ROLE IN DELIVERING NOURISH THE FUTURE

**Community health workers (CHWs) are the frontline of global health programming—they deliver vaccines, essential medicines, vitamins, information, guidance, and more to local communities. They are the human infrastructure that makes the last-mile delivery of most global health services possible. The COVID-19 pandemic has put immense strain on CHW networks that were already overstretched and under-resourced.**



**Global health programming, including those programs proposed in Nourish the Future, depends on CHWs to succeed. These critical stakeholders—70 percent of whom are women—must receive equitable remuneration, regular and dedicated supervision, training, and consistently have available to them the supplies and equipment necessary to deliver not only the Power 4 but other health services as well.**

**The proposal articulated in Nourish the Future complements USAID’s Vision for Health System Strengthening 2030, which has Equity, Quality, and Resource Optimization as its guiding principles. It recognizes the links between health systems, resilience, and health security—including those lessons learned from the ongoing pandemic—while also supporting multi-stakeholder efforts by donors, country governments, and the private sector to adhere to and advance the recommended best practices established by the World Health Organization.<sup>71</sup>**

**As the United States and the world look to build back better, it is vital that the role of CHWs be recognized and appropriately supported. Training and equipping community health workers to deliver the Power 4 will increase their impact and heighten their prestige in the community and the demand for their services.<sup>72</sup>**

<sup>71</sup> “WHO Launches New Guideline on Health Policy and System Support to Optimize Community Health Worker Programmes,” World Health Organization, October 25, 2018, <https://www.who.int/news/item/25-10-2018-who-launches-new-guideline-on-health-policy-and-system-support-to-optimize-community-health-worker-programmes>.

<sup>72</sup> J. M. Schurer et al., “Equity for Health Delivery: Opportunity Costs and Benefits among Community Health Workers in Rwanda,” PLOS One 15, no. 9 (2020): e0236255, <https://doi.org/10.1371/journal.pone.0236255>.

## II) SUPPORT UNITED NATIONS (UN) LEADERSHIP ON WASTING AND THE POWER 4.

The deadliest form of malnutrition, known as wasting, is when the body is so starved of nutrients it literally begins to consume itself. When children suffer from severe wasting, ordinary food alone is often not enough to bring them back to health. Although this condition is extremely pervasive in many LMICs—often affecting up to 15 percent of young children<sup>73</sup>—a highly effective treatment is also available. Ready-to-use therapeutic food (often known as RUTF or Plumpy'nut) is a Power 4 intervention that can bring children back from the brink of death in a matter of weeks. RUTF is a relatively simple medical food paste made of peanuts, powdered milk, and multivitamins. A typical treatment regimen for a child consists of three packets of RUTF every day for about six weeks. The cost of this treatment is less than \$1 per day and is highly effective, with recovery rates ranging between 70 and 90 percent of children admitted.<sup>74</sup> Treatment costs could be reduced a further 20 percent through improved formulations, production capacity, and volume guarantees. However, of the 50 million children suffering from wasting in the world today, fewer than one in four have access to treatment.<sup>75</sup> Without it, many of them will not survive. It is estimated that 700,000 to 900,000 lives could be saved each year if 90 percent of children with wasting received treatment in the form of RUTF.<sup>76</sup>

Even in relatively well-functioning health systems, the management of wasting is often funded and implemented almost entirely by external actors (such as UN agencies, NGOs, and international donors) without integration into government-run primary health systems. Low treatment coverage is perpetuated by persistent funding gaps. Even if funding exists, it often flows through international humanitarian or emergency financing mechanisms, which can be unpredictable and inefficient and tend to use parallel systems that do not integrate well into primary health systems or build national capacity. When international funding is removed, the system for treatment generally collapses. Despite the fact that the majority of wasting cases occur in stable settings, RUTF is largely financed via short-term humanitarian funding mechanisms which can make it difficult to ensure continuous supply. Today, an estimated 90 percent of RUTF is purchased with emergency/humanitarian funding while only 25 percent of children with wasting live in such contexts.<sup>77</sup> Funding for RUTF needs to be integrated into development accounts and primary healthcare budgets, not just emergency aid packages.



<sup>73</sup> Nutrition Cluster and UNICEF, "On-Going Humanitarian Emergency Threatens the Nutritional Status of Vulnerable Children and Women in the Central African Republic: Nutrition Cluster Advocacy Note as of 5th February 2021 [press release]," ReliefWeb, February 17, 2021, <https://reliefweb.int/report/central-african-republic/going-humanitarian-emergency-threatens-nutritional-status-vulnerable>.

<sup>74</sup> S. Isanaka et al., "Cost Analysis of the Treatment of Severe Acute Malnutrition in West Africa," *Maternal and Child Nutrition* 13, no. 4 (2017): e12398, <https://pubmed.ncbi.nlm.nih.gov/27921381/>.

<sup>75</sup> "Global Action Plan on Child Wasting: A Framework for Action to Accelerate Progress in Preventing and Managing Child Wasting and the Achievement of the Sustainable Development Goals," World Health Organization, March 9, 2020, <https://www.who.int/docs/default-source/nutritionlibrary/publications/malnutrition/global-action-plan-child-wasting.pdf>.

<sup>76</sup> "Simplified Approaches for the Treatment of Child Wasting," World Health Organization.

<sup>77</sup> No Time to Waste, UNICEF



Fragmented programming for these services also undermines the delivery of treatment and care. The standard approach for treating degrees of wasting (based on the measurement of a child's mid-upper arm circumference) relies on different organizations delivering separate protocols and products—frequently in separate locations. Where a child and their family receive care can depend on as little as a millimeter difference in their arm measurement.



The situation is further complicated by parallel supply chains managed by multiple UN and nongovernmental partners. In addition to being verticalized and duplicative, this system puts an undue burden on mothers and children who must navigate it to survive, often demanding weekly hours-long trips to different health centers for six weeks or more.

There are growing efforts to streamline this global malnutrition treatment system in order to scale up services, maximize efficiencies, ensure integration and sustainability, and deliver maximum value for every dollar spent. Under the leadership of Secretary-General António Guterres, the UN has taken promising steps to reform this cumbersome architecture, including the launch of the Global Action Plan on Child Wasting<sup>78</sup> and the UNICEF–World Food Programme Partnership framework,<sup>79</sup> but work remains to strengthen national and community health systems and more sustainably deliver these lifesaving programs.

UNICEF is leading the way by increasing global momentum on treating wasting. Through diplomatic engagement and catalytic investments, the U.S. government can support UNICEF—newly designated as the lead UN agency on wasting<sup>80</sup>—in ushering in a more purposeful, systematic, and accountable global approach that leverages the collective strengths of partner country governments, other UN agencies, NGOs, and the global community. Ultimately, this will enable the scale-up of an improved approach to wasting treatment and prevention, while helping countries accelerate progress in the forthcoming “decade of delivery” on the wasting-related SDG target.<sup>81</sup>

In addition to Ready-to-use Therapeutic Foods, the UN system—and UNICEF in particular—also supports and coordinates the global supply chain and delivery of the other Power 4 interventions: multiple micronutrient supplements (prenatal vitamins), vitamin A supplementation, and breastfeeding support. The United States can partner with UNICEF to help improve the global availability of each of the Power 4 interventions.

<sup>78</sup> “Simplified Approaches for the Treatment of Child Wasting,” World Health Organization.

<sup>79</sup> “UNICEF and WFP Partnership Framework to Address Wasting in Children Globally,” Field Exchange, accessed May 24, 2021, <https://www.enonline.net/fex/64/unicefandwfpwastingframework>.

<sup>80</sup> Ibid.

<sup>81</sup> “Goal 2: Zero Hunger,” UN Sustainable Development Goals, accessed April 2, 2021, <https://www.un.org/sustainabledevelopment/hunger/>.

To support UN leadership and increase global coverage of wasting treatment and prevention, Nourish the Future would **provide \$250 million in seed funding to launch No Time to Waste**,<sup>82</sup> a novel, multilateral effort led by UNICEF to support governments and local stakeholders to rapidly scale next-generation approaches for preventing, detecting, and treating wasting in priority countries. Through No Time to Waste, UNICEF aims to simultaneously accelerate progress on two interrelated fronts: (1) reducing the number of children suffering from wasting, and (2) increasing the number of children with life-threatening wasting who access treatment. UNICEF plans to work with national, regional, and global partners to identify particularly high-risk areas of target countries and prioritize resources where they can be most impactful. The program will provide support to the most vulnerable children across contexts: the youngest of the young, poorest of the poor, and those left behind by humanitarian crises. With this investment, the U.S. government would unlock an additional \$750 million in partner resources.



Leveraging U.S. Multilateral Leadership

## UNLOCKING \$1 BILLION FOR HIGH IMPACT NUTRITION PROGRAM



\$250 million in funding from the U.S. Government supports UNICEF's No Time to Waste initiative.

The U.S. contribution catalyzes \$750 million in additional funding from other government donors, philanthropy, and corporate investors.

UNICEF drives an effort to prevent, detect, and treat deadly malnutrition in Nourish the Future priority countries and beyond, delivering essential nutrition interventions (including the Power 4) to millions at risk.

<sup>82</sup> UNICEF, No Time to Waste: UNICEF's Approach for the Prevention, Early Detection, and Treatment of Wasting in Early Childhood (New York: UNICEF, 2021).



By investing in No Time to Waste, the United States would support a comprehensive global effort to:

- **Reduce child deaths by scaling up priority interventions for the prevention, early detection, and treatment of child wasting.** This package of priority interventions would include a prominent focus on improving the global supply and delivery of the Power 4 interventions.
- **Scale up community-based treatment of wasting,** so that mothers and children no longer have to make long, weekly journeys to receive care. Evidence suggests that treating wasting (with no other complications) can be delivered safely and effectively by adequately trained, professionalized community health workers. This approach has been shown to significantly increase coverage while reducing the costs of treatment.<sup>83</sup> Countries like Mali have already made it part of their national policy, and other nations across Africa and Asia are beginning to implement this approach as well. As such, UNICEF will prioritize partnerships with national governments and local organizations (who are especially critical to understanding on-the-ground realities) to test and implement programs for wasting management and ensure sustainable access to services.
- **Make wasting treatment more cost-effective and sustainable** by combining care for different degrees of wasting into a single, simplified approach. Studies show this combined strategy is as effective as traditional treatment but costs up to \$123 less per child.<sup>84</sup> By shifting to a protocol that treats the full spectrum of high-risk children with wasting in the same place—with the same product at the same time—health systems can treat more malnourished children at a significantly reduced cost per child. A streamlined treatment program would also result in less operational overhead.
- **Recognize UNICEF as the lead, coordinating UN agency on wasting** to drive a more streamlined global approach to prevention, detection, and treatment—including global scale-up of the full Power 4 package.
- **Support local producers and governments** with the procurement, storage, distribution, and management of RUTF and other essential commodities for the treatment and prevention of wasting as part of national systems.
- **Support the effective implementation of the independent Action Review Panel** (launched by UNICEF in May 2021) to oversee the UN wasting treatment system, including participation by national governments, civil society, and donors. This should include committing to ensuring the USAID Administrator's participation in this multistakeholder forum and advocating for the ability of the panel to provide effective oversight of UN agency efforts.

Through No Time to Waste, UNICEF proposes introducing innovative financing mechanisms—including an RUTF matching fund—to incentivize burden sharing and greater domestic resource allocation. It also seeks to improve supply chain management by pre-positioning RUTF, reducing bottlenecks, and improving geographic targeting.

No Time to Waste also aims to substantially reduce the global cost of RUTF by producing alternative formulations and leveraging volume guarantees. With the support of academic and private sector partners at national and global levels, UNICEF aims to accelerate the testing and roll-out of a new generation of RUTFs. These new formulas explore the use of cheaper, locally available ingredients, and leverage the food system to generate longer-term benefits from both locally produced and offshore supplies of RUTF. UNICEF aims to build evidence on the acceptability, palatability, and effectiveness of RUTF formulations and support the rollout and uptake of these formulations globally.

<sup>83</sup> N. Lopez-Ejeda et al., "Bringing Severe Acute Malnutrition Treatment Close to Households through Community Health Workers Can Lead to Early Admissions and Improved Discharge Outcomes," PLOS One 15, no. 2 (2020): e0227939, doi:10.1371/journal.pone.0227939. Countries have already made this approach part of their national policy, while others across Africa and Asia are beginning to introduce it. For example, Ethiopia task shifted SAM treatment to health extension workers in 2008 and has successfully treated around half a million children since then.

<sup>84</sup> J. Bailey et al., "A Simplified, Combined Protocol Versus Standard Treatment for Acute Malnutrition in Children 6–59 Months (ComPAS Trial): A Cluster-Randomized Controlled Non-Inferiority Trial in Kenya and South Sudan," PLOS Medicine 17, no. 7 (2020): e1003192, doi.org/10.1371/journal.pmed.1003192.

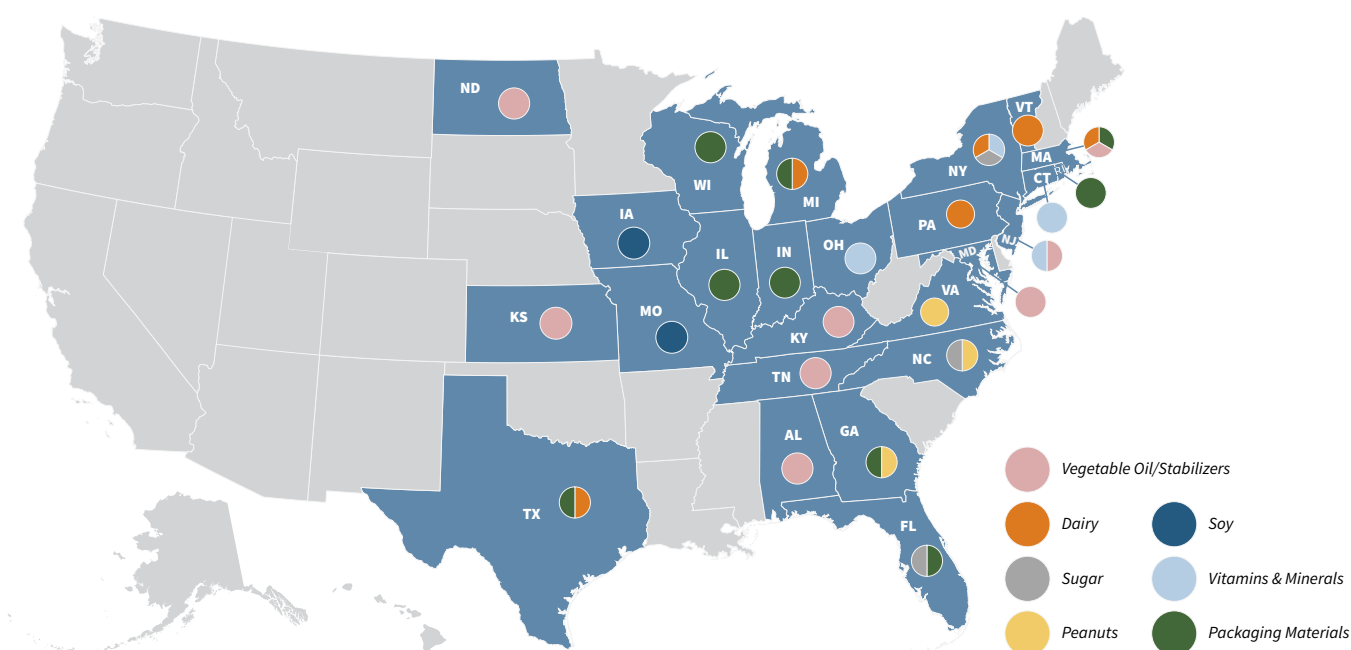
### III) LAUNCHING THE LIFESAVING FOODS PRODUCTION INITIATIVE.

One of the biggest barriers to scaling up wasting treatment is an inadequate global supply of RUTF, which is frequently out-of-stock in many contexts—even in easily accessible areas with stable political situations and high, consistent demand for wasting treatment.<sup>85</sup> This key commodity is not yet included on the essential medicines/commodities list in many countries and is not routinely procured by national governments.

There is simply too little funding for RUTF procurement, and thereby too little production and too little available product. Currently, most RUTF is produced in developed countries and shipped to LMICs. USAID and other partners have been working to spur local production of RUTF in high-burden countries, which is a critical pathway to increasing the sustainability of RUTF supply and reducing the costs associated with global shipping. However, it will take a number of years to achieve enough manufacturing capacity in LMICs to meet the immense shortfall in global supply (which was already significant and is likely to increase due to COVID-19, armed conflict, and climate change). In the meantime, if production is not immediately increased from existing sources, millions of children will continue to die needlessly from a lack of global RUTF supply.

The United States is already one of the world's largest producers of RUTF and the agricultural inputs (peanuts, dairy, vegetable oil, sugar, etc.) needed to produce it. With appropriate U.S. government support, U.S. farmers and manufacturers have the capacity to rapidly increase production to fill the needed short-term global supply of RUTF. Key ingredients, including millions of tons of peanuts and dairy powder, could be sourced from across U.S. farm states. Corporate partners—such as relevant U.S. agricultural industry associations, suppliers, and producers—could provide co-funding for the program and in-kind donation of inputs. The U.S. government could deepen partnerships with therapeutic-food manufacturers—MANA Nutrition in Fitzgerald, Georgia, and Edesia Nutrition in North Kingstown, Rhode Island—in order to scale up production. All told, this effort would stimulate U.S. agriculture and manufacturing, and harness the very best of American leadership and ingenuity to immediately save and improve lives.

#### Commodities Map | U.S. Producers of Ready-to-Use Therapeutic Food




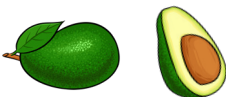







<sup>85</sup> For an analysis of such bottleneck issues see "Bottleneck Analysis (BNA) to Improve Effective Coverage of Severe Acute Malnutrition (SAM) Management Service," UNICEF, February 2016, and a range of country-specific analyses. Also see "Toolkit to Monitor Bottlenecks to Effective Coverage of Community-Based Management of Severe Acute Malnutrition Services," Emergency Nutrition Network (ENN), March 2015, [https://www.enonline.net/attachments/2348/SAM-Bottleneck-Monitoring-Toolkit\\_Summary.pdf](https://www.enonline.net/attachments/2348/SAM-Bottleneck-Monitoring-Toolkit_Summary.pdf).  
Source Note: Data courtesy of Edesia and MANA

Any near-term expansion of U.S. production should be married with a concurrent, complementary effort to accelerate the local production of RUTF in high burden regions. Expanding local and regional production will require support from across the U.S. government, in order to finance local and regional producers, support companies to meet food safety benchmarks, and roll out essential marketing and distribution infrastructure. USAID, the Development Finance Corporation, and the Millennium Challenge Corporation already play an active and important role in supporting local and regional producers in scaling up their capacity to produce RUTF. Over time, similar approaches could be deployed for other therapeutic foods, such as small quantity, lipid-based nutrient supplements designed to fill nutrient gaps in children's diets in highly food insecure settings where nutritious food is inaccessible.

This dual approach to quickly and sustainably scale up malnutrition treatment globally means that in the short-term, additional supply will primarily come from increased U.S. manufacturing. Over a three-to-five-year period, additional U.S.-supported local and regional production will come online to reduce costs and stimulate local manufacturing and agriculture. By year five, the United States could drive a transformative effort that would see the majority of global RUTF produced in LMICs, with U.S. production filling gaps and providing a buffer and surge-production capacity.

## RUTF COMPARISON CHART

The below chart illustrates the nutritional value of a single packet of RUTF, which costs only 23 cents to produce.

<b>CALORIES</b>	500	2 bagels 
<b>FAT</b>	30.3 g	1.5 avocados OR 48 almonds 
<b>PROTEIN</b>	12.8 g	2 eggs 
<b>CALCIUM</b>	302 mg	3 cups of milk 
<b>VITAMIN C</b>	46 mg	1 small orange 
<b>IRON</b>	10.3 mg	1 large bunch of spinach 
<b>FOLIC ACID</b>	184 µg	2.5 cups kale OR 4 cups of cereal 
<b>VITAMIN E</b>	18.4 mg	2/3 cup olive oil 
<b>VITAMIN A</b>	0.79 mg	½ of a carrot 

## IV) BUNDLE POWER 4 NUTRITION INTERVENTIONS WITH “CATCH-UP” CHILD IMMUNIZATION CAMPAIGNS SO NO CHILD IS LEFT BEHIND

Despite enormous progress over the last decade in delivering routine vaccinations to children everywhere, at least 20 million children annually still do not receive immunizations. COVID-19 has further complicated coverage of routine immunization, creating a growing cohort of unimmunized or under-immunized children<sup>86</sup> and undermining years of progress against infectious disease. Missed doses—combined with growing rates of malnutrition as a result of COVID-19—have created a double threat for millions of children around the world. Without access to essential nutrition or vaccine catch-up services, children are at substantially elevated risk of death from a host of preventable causes.

Malnutrition and infectious disease are mutually reinforcing—together causing millions of preventable child deaths each year. Malnutrition weakens the body's immunity and is associated with higher prevalence and severity of infectious diseases. Studies have shown that malnutrition may increase the risk of fatal COVID-19<sup>87</sup> and that malnourished children are more likely to die from diseases like diarrhea, measles, meningitis, and tuberculosis.<sup>88, 89, 90, 91, 92</sup> Severe malnutrition is also the leading risk factor for childhood pneumonia deaths.<sup>93</sup> At the same time, infectious diseases also deplete the body of resources and can cause malnutrition. There is, therefore, a negative feedback loop between malnutrition and infectious disease where each drives the other. The risk of mortality and other damaging health effects increases markedly.

Good nutrition is the bedrock of a functioning immune system, both protecting against infection and supporting recovery. Breastfeeding is often called a child's “first vaccine,” as it passes maternal immunologic factors to babies in the first hours and days of life. A well-established body of evidence demonstrates that nutrition interventions can increase vaccine effectiveness.<sup>94</sup> In addition, several studies have shown that integrating basic nutrition services with vaccination efforts in LMICs can also increase vaccine demand and coverage.<sup>95</sup>



<sup>86</sup> World Health Organization and UNICEF, “Emergency Call to Action: For Measles and Polio Outbreak Prevention and Response,” November 2020, <https://polioeradication.org/wp-content/uploads/2020/11/Call-To-Action-20201105.pdf>.

<sup>87</sup> Technical Assistance to Strengthen Capabilities (TASC) Project, “Tracking Data and Evidence on the Indirect Impact of COVID-19 on Selected Nutrition Outcomes, Interventions and Policy Responses,” UK Aid, February 2021, <https://assetify-dai.com/resource-library/C19-tracker-core-report-february.pdf>.

<sup>88</sup> Ibironke Olofin et al., “Associations of Suboptimal Growth with All-Cause and Cause-Specific Mortality in Children under Five Years: A Pooled Analysis of Ten Prospective Studies,” PLOS One 8, no. 5 (2013): e64636, <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0064636>.

<sup>89</sup> I. Olofin et al., “Associations of Suboptimal Growth with All-Cause and Cause-Specific Mortality in Children under Five Years: A Pooled Analysis of Ten Prospective Studies,” PLOS One 8, no. 5 (2013): e64636, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3667136/>.

<sup>90</sup> J. Katz et al., “Mortality Risk in Preterm and Small-For-Gestational-Age Infants in Low-Income and Middle-Income Countries: A Pooled Country Analysis,” Lancet 382, no. 9890 (2013): 417–25, <http://www.ncbi.nlm.nih.gov/pubmed/23746775>.

<sup>91</sup> R. E. Black et al., “Maternal and Child Undernutrition and Overweight in Low-Income and Middle-Income Countries [supplementary material, Web Table 17],” Lancet 382, no. 9890 (2013): 427–51, <http://www.ncbi.nlm.nih.gov/pubmed/23746772>.

<sup>92</sup> NEOVITA Study Group, “Timing of Initiation, Patterns of Breastfeeding, and Infant Survival: Prospective Analysis of Pooled Data from Three Randomised Trials,” Lancet Global Health 4, no. 4 (2016): e266–75, <https://www.ncbi.nlm.nih.gov/pubmed/27013313>.

<sup>93</sup> Bernadeta Dadonaite and Max Roser, “Pneumonia,” OurWorldInData.org, November 2019, <https://ourworldindata.org/pneumonia#what-are-the-biggest-risks-for-developing-pneumonia>.

<sup>94</sup> Mamiko Niki et al., “Nutritional Status Positively Impacts Humoral Immunity against Its Mycobacterium Tuberculosis, Disease Progression, and Vaccine Development,” PLOS One 15, no. 8 (2020), <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0237062#:~:text=Monitoring%20nutrition%20may%20be%20a,severity%20%5B%2C%20%5D>.

<sup>95</sup> A. V. Banerjee, E. Duflo, and R. Glennerster, “Improving Immunisation Coverage in Rural India,” British Medical Journal 340 (2010): c2553, doi:10.1136/bmj.c2553.



In the long-term, the world must invest in more sustainable solutions to malnutrition such as nutritious food systems and integrating the Power 4 into health systems. In the short-term, an emergency nutrition response will be essential in preventing major spikes in pandemic-related malnutrition and child deaths while also building overall population immunity. Bundling catch-up child immunization campaigns with nutrition services in LMICs is a critical opportunity to build back better from the pandemic by rapidly bolstering the health and immunity of children worldwide.

There is precedent for this recommendation. Vitamin A supplementation for children—one of the most cost-effective ways to reduce child mortality—has long been paired with routine vaccination campaigns, including National Polio Immunization Day and Child Health Day programs. However, with the spread of the pandemic, VAS coverage rates have declined precipitously. In 2020, Nutrition International estimated that 100 million children missed their first dose of VAS due, in large part, to health system disruptions caused by COVID-19.<sup>96</sup> Catch-up child immunization days could offer an important opportunity to reverse this trend. Because VAS builds immunity and can reduce a child's overall risk of mortality by up to 24 percent, “bundling” VAS with catch-up child vaccination campaigns could dramatically increase the number of lives saved by these campaigns at relatively little additional cost.<sup>97,98</sup>

Other routine nutrition services can also be relatively easily bundled with child immunizations during child health events. In support of the 2021–2025 strategy of Gavi: The Vaccine Alliance—and in response to growing rates of malnutrition as a result of COVID-19—the United States can help lead a global strategy to reach zero-dose and under-immunized children with vaccination and nutrition interventions that can boost immunity and help children survive and thrive.

Working with Gavi, UNICEF, the World Food Programme, partner governments, and nongovernmental implementing partners, the United States can lead an effort to ensure:<sup>99</sup>

- Catch-up vitamin A supplementation is delivered, where appropriate, alongside catch-up child immunizations.
- All babies presenting for vaccination in the first years of life are screened for wasting and their mothers are also screened for malnutrition.
- Pregnancies are noted during vaccination days, and expectant mothers are provided with multiple micronutrient supplements (MMS) and referred to ANC services.
- After vaccination, malnourished babies and/or mothers are sent for nutritional counseling on-site, then sent home with therapeutic foods where appropriate. Severely malnourished children with complications should be referred to hospital-based care.
- Mothers and children in highly food insecure contexts receive supplements and/or nutritious food products that will improve family nutrition, protect children, reduce poverty, and also act as an effective incentive to participate in vaccination programs.
- Training of vaccine and nutrition healthcare workers is coordinated and incentivized to ensure all babies and mothers are screened for malnutrition at the point of vaccination, counseled on-site, or referred for treatment as required.

<sup>96</sup> “A Race to Prevent Child Deaths in the Wake of COVID-19,” *Globe and Mail*, January 18, 2021(updated February 1, 2021), [www.theglobeandmail.com/life/adv/article-a-race-to-prevent-child-deaths-in-the-wake-of-covid-19/](http://www.theglobeandmail.com/life/adv/article-a-race-to-prevent-child-deaths-in-the-wake-of-covid-19/).

<sup>97</sup> R. E. Black et al., “Maternal and Child Undernutrition and Overweight in Low-Income and Middle-Income Countries,” *Lancet* 382, no. 9890 (2013): 427–51, <https://pubmed.ncbi.nlm.nih.gov/23746772/>.

<sup>98</sup> A. Imdad et al., “Impact of Vitamin A Supplementation on Infant and Childhood Mortality,” *BMC Public Health* 11, suppl. 3 (2011): S20, <http://www.ncbi.nlm.nih.gov/pubmed/21501438>.

<sup>99</sup> This bundled approach should include a robust monitoring and evaluation program to assess the feasibility and sustainability of implementing it routinely, beyond the duration of the post-pandemic catch up immunization strategy.

- Vaccines, therapeutic foods, and nutrition supplements share common supply chains to further increase the cost-effectiveness of participating partners (e.g., Gavi, UNICEF, WFP).

These recommendations mirror the broader health systems integration recommendations made previously. Focusing specifically on embedding these solutions into catch-up vaccination programs would expand efforts to address malnutrition and to truly build back better from the pandemic.

## FRAGILE AND CONFLICT AFFECTED SITUATIONS

**Armed conflict, the growing climate crisis, and COVID-19 are all contributing to rising levels of hunger and malnutrition. In emergency settings across the globe, restrictions on movement, displacement, and lack of critical infrastructure prevent particularly marginalized populations from accessing healthy diets or lifesaving nutrition services. In April 2020, the World Food Programme (WFP) warned that without immediate action to mitigate the compounding impact of COVID-19, the situation could grow even more dire, with the potential for the world to see “famines of biblical proportions.”**

**Urgent action is needed to avoid catastrophic loss of life, with more than 30 million people in 36 countries facing emergency levels of acute food insecurity and high rates of severe child malnutrition. The millions of severely malnourished children trapped within these humanitarian crises require lifesaving therapeutic foods (RUTF) to stay alive. All young children in these contexts also require access to the other Power 4 interventions to help them survive and thrive.**

**In fragile contexts—where strengthening health and food systems and ensuring the sustainable delivery of nutrition interventions may not be feasible due to armed conflict and humanitarian crises—WFP plays a critical role. It supports country governments, local and international nongovernmental organizations, faith-based institutions, and other implementing partners to ensure services and essential commodities reach vulnerable populations—with an emphasis on women and children—who cannot be reached by national systems. To maintain households’ access to food and essential nutrition services, the United States should further invest in WFP and UNHCR to provide emergency services (including RUTF treatment for wasting), food assistance, cash transfers, public health services, livelihood support, and other programming in humanitarian settings.**



# APPROACH TWO:

## IMPROVING NUTRITION THROUGH FOOD SYSTEMS



***“Food is the single strongest lever to optimize human health and environmental sustainability on Earth.”***

—EAT-Lancet Commission<sup>103</sup>

Today, billions of people across the globe survive mostly on empty calories—plates of rice, cassava, or maize—with very little of the protein and other nutrients that bodies and brains need to function. Three billion people worldwide cannot afford or access healthy diets.<sup>104, 105</sup> Globally, only 18 percent of children under two years of age receive a minimum acceptable diet. Food systems are failing to deliver the nutritious diets that women and children need to thrive.

Many countries continue to face persistently high rates of undernutrition at the same time that obesity rates are projected to increase by roughly 38 percent in LMICs over the next 20 years.<sup>106</sup> Unhealthy diets are the number one contributing factor to the global burden of disease and the leading cause of premature deaths worldwide. It is estimated that economic and health burdens stemming from poor diets will cost the world \$16 trillion per year by 2050.<sup>107</sup> And, the global climate crisis stands to exacerbate these realities. Studies have shown that increasingly warm temperatures and extreme weather events can adversely impact food security, food quality, nutritional value, and diet diversity—particularly across Asia, Africa, and South America.<sup>108</sup>

### **BUILDING ON A DECADE OF FEED THE FUTURE**

The United States has previously committed to improving food systems worldwide. Launched in 2010, the U.S. government’s Feed the Future initiative has catalyzed impressive improvements in global food security and agricultural productivity. Thanks to U.S. investment, today more than 23 million people live above the global poverty line and farmers around the world have generated nearly \$14 billion in agricultural sales (as compared to 2010). Through Feed the Future, the United States is already leading the way in the fight against hunger.



<sup>103</sup> “Healthy Diets from Sustainable Food Systems: Food Planet Health,” EAT-Lancet Commission, August 13, 2019, [https://eatforum.org/content/uploads/2019/01/EAT-Lancet\\_Commission\\_Summary\\_Report.pdf](https://eatforum.org/content/uploads/2019/01/EAT-Lancet_Commission_Summary_Report.pdf).

<sup>104</sup> FAO, IFAD, UNICEF, WFP, and WHO, The State of Food Security and Nutrition in the World 2020: Transforming Food Systems for Affordable Healthy Diets (Rome: FAO, 2020), <http://www.fao.org/3/ca9692en/online/ca9692en.html>.

<sup>105</sup> Anna Herforth, “Three Billion People Cannot Afford Healthy Diets: What Does This Mean for the Next Green Revolution?” Center for Strategic and International Studies, September 23, 2020, <https://www.csis.org/analysis/three-billion-people-cannot-afford-healthy-diets-what-does-mean-next-green-revolution>.

<sup>106</sup> Tara Templin et al., “The Overweight and Obesity Transition from the Wealthy to the Poor in Low- and Middle-Income Countries: A Survey of Household Data from 103 Countries,” PLOS Medicine 16, no. 11 (2019): e1002968 [see fig. 3], <https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002968>.

<sup>107</sup> “Growing Better: Ten Critical Transitions to Transform Food and Land Use: The Global Consultation Report of the Food and Land Use Coalition,” Food and Land Use Coalition, September 2019, <https://www.foodandlandusecoalition.org/global-report/>.

<sup>108</sup> Meredith T. Niles et al., “Climate Impacts Associated with Reduced Diet Diversity in Children across Nineteen Countries,” Environmental Research Letters 16, no. 1 (2021): 015010, <https://iopscience.iop.org/article/10.1088/1748-9326/abd0ab>.



However, one decade after Feed the Future's inception, the world is faced with new and pressing challenges. COVID-19 is projected to increase global malnutrition rates significantly and, in many places, has undermined and weakened food systems and supply chains. The global climate crisis is further undermining these systems. While these crises are threatening progress, a growing evidential base (including from the last decade of Feed the Future's leadership) has better equipped the world (and the U.S. government) to respond.

Feed the Future has driven impressive gains in agricultural productivity and economic growth. Progress in improving the quality and nutritional value of such food, however, has been uneven. While Feed the Future has delivered reductions in childhood stunting in some areas, the initiative has not yet fully realized its potential to transform the nutrition of the communities it supports. A recent analysis of the first decade of Feed the Future found that, in four focus countries, childhood stunting actually increased over the last decade. And, of the original 19 focus countries, eight saw increases in childhood wasting.<sup>109</sup> The drivers of these dynamics are undoubtedly complex and highly context dependent. But, it is also true that further prioritizing nutrition outcomes through Feed the Future would enhance and help achieve the intended outcomes of the program. Further investment in the availability of and access to nutritious foods (while also supporting efforts to increase the demand for that food) has the potential to reduce malnutrition and improve the health and well-being of mothers and children.



**The refresh of the U.S. Global Food Security Strategy also offers a timely opportunity to focus on improving the supply, affordability, and demand for healthy foods. Nourish the Future can—and should—be tightly aligned with the U.S. government's overall food security strategy.**



<sup>109</sup> CARE USA, What Impact Does Feed the Future—the United States Government's Global Hunger and Food Security Initiative—Have on Improving Nutrition? [forthcoming].



Through Nourish the Future's food systems focus, the U.S. government can:

**I. SCALE UP PROVEN INTERVENTIONS TO SUPPORT VALUE CHAINS FOR SAFER, MORE NUTRITIOUS FOODS WITH LESS WASTE AND LOSS.** USAID can promote and strengthen value chains for a diverse basket of nutritious foods. Doing so both increases the nutritional profile of staple foods through approaches like biofortification and large-scale food fortification and expanding Feed the Future's focus on building more nutritious value chains (particularly for livestock, aquaculture, dairy, fruits, vegetables, and legumes). Increasing the availability, affordability, and consumption of these nutritious foods is essential to increasing dietary diversity and reducing malnutrition. This should include infrastructure improvements, food safety regulations, supply chain surveillance mechanisms, and other efforts to ensure nutritious value chains extend beyond the farm, into the market, and ultimately into the mouths of those most vulnerable to malnutrition.



**II. SUPPORT MARKET-DRIVEN AND PRIVATE-SECTOR SOLUTIONS TO GLOBAL MALNUTRITION, INCLUDING THROUGH LARGE-SCALE FOOD FORTIFICATION AND THE EXPANSION OF THE U.S. GLOBAL NUTRITION FINANCING.** Private sector investment in food systems and healthcare will be crucial to sustainably ending malnutrition. A well-nourished population is also critical to the private sector, as good nutrition increases the health and productivity of workforces. Building on the U.S. International Development Finance Corporation's (DFC) Global Nutrition Financing Alliance and 2X Women's Initiative, Nourish the Future could support investment in private sector enterprises poised to deliver market-based solutions to end global malnutrition. In addition, the United States can help countries close the micronutrient gap by enhancing its Partnering for Innovation activities with local food processing companies to improve the nutritional value of staple foods. These partnerships are an opportunity to scale up a vital nutritional intervention—the large-scale fortification of staple foods—to improve the micronutrient profile of the affordable foods that are already the mainstay of local diets. Nourish the Future could also scale up local and regional production of lipid-based nutrient supplements (LNS) for use in humanitarian assistance, harnessing the purchasing power of USAID and its partners to make these lifesaving products more available and affordable on local markets. This will also drive improved nutrition outcomes for populations beyond those in need of direct humanitarian assistance.



## I. SCALE UP PROVEN INTERVENTIONS TO SUPPORT VALUE CHAINS FOR SAFER, MORE NUTRITIOUS FOODS WITH LESS WASTE AND LOSS

For more than three billion people worldwide, particularly in LMICs, healthy diets are unaffordable.<sup>110</sup> While improving livelihoods and boosting incomes helps families afford healthier foods, research shows that increased income does not automatically translate into healthier diets. Rather, improving dietary and nutritional outcomes requires a multipronged approach that increases dietary diversification while improving the nutritional value of the staple foods that millions of people worldwide depend on.

For millions of families, putting fruits, vegetables, and appropriate animal-sourced foods on the table year-round depends on a combination of higher incomes, lower food prices, and food assistance. At a community level, it requires stronger value chains for nutritious foods and better functioning, better integrated food markets. Improving diets for women and children in the poorest and most vulnerable communities requires making diverse, nutrient-rich food available, affordable, and desirable. It also requires considering the critical intersections between food systems, climate change, and women's empowerment.

Through Nourish the Future, USAID could:

- **Promote nutritious value chains.** Feed the Future has delivered impressive results in productivity and profitability by focusing on the seed-to-market pathway for staple commodities. Through Nourish the Future, the U.S. government would increase the nutritional profile of staple foods through approaches like biofortification.<sup>111</sup> The United States would also increase its focus on more nutritious value chains—particularly for livestock, dairy, fruits, vegetables, and legumes. Increasing the availability and affordability of these nutritious foods is essential to increasing dietary diversity and reducing malnutrition. Bolstering these value chains would also fight poverty and create new jobs, especially for women.

In geographies where consumption of animal protein is low, for example, increasing the ability of women to access and afford livestock could improve nutrition outcomes, increase household income, and elevate women's social status.<sup>112</sup> Research shows that regularly providing children with nutrient-rich foods like eggs improves their cognitive development and reduces stunting.<sup>113</sup> Moreover, large-scale fortification of staple foods with essential vitamins and micronutrients—including zinc, iron, folate, and vitamin A—is a proven, cost-effective way to reach large populations with vital nutrients, particularly those at risk of food insecurity due to increased temperatures and variability in rainfall and drought.<sup>114, 115</sup> Studies have shown that wheat, rice, and maize—fortified with iron and folic acid—can significantly reduce anemia and neonatal mortality. Additionally, community and kitchen gardens can be utilized in coordination with fortification and other interventions to help improve the diets of the poorest households that may not have access to fortified foods.

As Harvard Senior Researcher Anna Herforth has written: “The most affordable diet is composed of [staple] crops, which have received the lion's share of public investment over the last 50 years. Public investment works: where the money goes, innovations follow, and agricultural supply chains have shifted to produce more of these three crops. As supply increases, these starchy staples have become cheaper and constitute a greater proportion of global diets.”<sup>116</sup> Investing in highly nutritious foods and supply chains will ultimately reduce their price to consumers around the world and help diversify diets in malnourished communities. These investments will also support job creation and economies in LMICs.

<sup>110</sup> The State of Food Security and Nutrition in the World 2020.

<sup>111</sup> Every dollar invested in biofortification yields \$17 in return.

<sup>112</sup> “Animal-Source Foods for Human and Planetary Health,” GAIN Briefing Paper Series 2, Global Alliance for Improved Nutrition, February 2020, <https://www.gainhealth.org/sites/default/files/publications/documents/gain-briefing-paper-series-2-animal-source-foods-for-human-and-planetary-health.pdf>.

<sup>113</sup> Chessa K. Lutter and Saul S. Morris, “Eggs: A High Potential Food for Improving Maternal and Child Nutrition,” *Maternal and Child Nutrition* 14, suppl. 3 (2018), <https://www.internationalegg.com/app/uploads/2018/10/October-2018-Maternal-Child-Nutrition.pdf>.

<sup>114</sup> Niles et al., “Climate Impacts.”

<sup>115</sup> FAO, IFAD, UNICEF, WFP, and WHO, *The State of Food Security and Nutrition in the World: Building Climate Resilience for Food Security and Nutrition* (Rome: FAO, 2018), <http://www.fao.org/3/19553EN/19553en.pdf>.

<sup>116</sup> Herforth, “Three Billion People Cannot Afford Healthy Diets.”

- **Improve Food Safety.** Food is not nutritious if it is not safe. According to the World Health Organization, foodborne diseases cause more than 600 million illnesses and 420,000 premature deaths each year.<sup>118</sup> LMICs bear a disproportionate burden of this impact, accounting for 75 percent of deaths related to foodborne illness. Many who die are children. Every one of these deaths is preventable.<sup>119</sup> The World Bank estimates that unsafe food costs low- and middle-income economies approximately \$110 billion in lost productivity and medical expenses annually. The United States can support countries in building on existing food safety regulatory frameworks and quality standards, improving mutual accountability systems, supporting well-functioning sanitary and phytosanitary systems, and enhancing regional coordination. This work, combined with establishing supply chain surveillance mechanisms, can strengthen food safety at scale.
- **Minimize Food Loss.** In LMICs, approximately one-third of food is lost or wasted.<sup>120</sup> Most of this loss occurs at the post-harvest stage. In much of sub-Saharan Africa and South Asia, food prices and availability are subject to sharp seasonal fluctuations – especially when it comes to perishable commodities – because agricultural markets are relatively isolated and have poor storage infrastructure and mechanisms to preserve food. To combat such food loss, Nourish the Future would invest in infrastructure improvements to minimize post-harvest loss and also ensure that nutritious value chains extend beyond the farm. Nourish the Future would scale new processing products that extend the shelf life of nutritious foods and reduce nutrient losses, as well as innovative post-harvest storage technologies that prevent contamination and further reduce nutrient losses. Globally, reducing food loss and waste by half (from 30 percent to 15 percent of all food produced, in line with the Sustainable Development Goals) could lead to a significant decrease in greenhouse gas production. It would increase food supply and also alleviate localized production pressure on land and water resources.<sup>121</sup>

**“DIETS AND THE FOOD SYSTEMS THAT DELIVER THEM ARE AT THE NEXUS OF THE CHALLENGES ASSOCIATED WITH MALNUTRITION, HUMAN HEALTH, NATURAL RESOURCE DEGRADATION, AND CLIMATE CHANGE.”**

– GLOBAL PANEL ON AGRICULTURE AND FOOD SYSTEMS FOR NUTRITION<sup>117</sup>



<sup>117</sup> “Future Food Systems: For People, Our Planet, and Prosperity,” Global Panel on Agriculture and Food Systems for Nutrition, 2020, <https://foresight.glopan.org/>.

<sup>118</sup> Foodborne diseases included mycotoxins including aflatoxins.

<sup>119</sup> Foodborne Disease Burden Epidemiology Reference Group 2007–2015, “WHO Estimates of the Global Burden of Foodborne Diseases,” World Health Organization, 2015, [apps.who.int/iris/bitstream/handle/10665/199350/9789241565165\\_eng.pdf?sequence=1](https://apps.who.int/iris/bitstream/handle/10665/199350/9789241565165_eng.pdf?sequence=1).

<sup>120</sup> Jenny Gustavsson, Global Food Losses and Food Waste: Extent, Causes and Prevention; Study Conducted for the International Congress Save Food! at Interpack 2011, [16–17 May], Düsseldorf, Germany (Rome: Food and Agriculture Organization of the United Nations, 2011).

<sup>121</sup> FAO, The State of Food and Agriculture 2020: Overcoming Water Challenges in Agriculture (Rome: author, 2020), <https://doi.org/10.4060/cb1447en>.





- Expand Women's Collectives.** Most of the world's smallholder farmers are women who frequently play a more active role than men in ensuring food for their families.<sup>122</sup> All too often, however, women do not have equal control of household resources. The UN Food and Agricultural Organization found that ensuring female farmers have basic control over their own resources can increase their yields by up to 30 percent.<sup>123</sup> This alone would reduce the number of hungry people in the world by up to 150 million.<sup>124</sup> Moreover, women with agency over financial resources are more likely to have children with better diets and less malnutrition.<sup>125</sup> If women were given equal decision-making power as men in the home concerning food, it is estimated that child malnutrition would decrease by 13 percent.<sup>126</sup> One key route to enabling women's increased control over their resources are Savings for Transformation (S4T) groups or Village Savings and Loan Associations (VSLAs)—self-managed groups within a community that meet regularly to save money in a safe space. These groups provide members access to small loans and the ability to obtain emergency insurance.<sup>127,128</sup> Such groups are proven to empower women, create new business opportunities, and build resilience to economic shocks. When supported in coordination with nutrition education initiatives, S4Ts and VSLAs can increase women's purchasing power and enable them to make full use of their knowledge of nutrition practices. Through Nourish the Future, the U.S. government could further support these groups in priority countries and intensify other efforts to support women's microcredit and land tenure rights.

<sup>122</sup> Ibid.

<sup>123</sup> FAO, IFAD, and WFP, "Empowering Women and Girls Is Crucial to Ensure Sustainable Food Security in the Aftermath of COVID-19, Say UN Food Agency Heads ahead of International Women's Day [press release]," ReliefWeb, March 6, 2021, <https://reliefweb.int/report/world/empowering-women-and-girls-crucial-ensure-sustainable-food-security-aftermath-covid-19>.

<sup>124</sup> Ibid.

<sup>125</sup> J. M. Porth et al., "Women's Empowerment and Child Vaccination in Kenya: The Modifying Role of Wealth," *American Journal of Preventive Medicine* 60, no. 1 (2021): S87–S97, <https://www.sciencedirect.com/science/article/pii/S0749379720303974>.

<sup>126</sup> The State of Food Security and Nutrition in the World 2020.

<sup>127</sup> "Savings For Transformation," World Vision, accessed May 24, 2021, <https://www.wvi.org/economic-development/savings-transformation>.

<sup>128</sup> "VSLA 101 (English): FAQs on Village Savings and Loan Associations (VSLAs)," CARE, accessed May 24, 2021, <https://www.care.org/our-work/education-and-work/microsavings/vsla-101/>.



## II. SUPPORT MARKET-DRIVEN AND PRIVATE-SECTOR SOLUTIONS TO GLOBAL MALNUTRITION, INCLUDING THROUGH LARGE-SCALE FOOD FORTIFICATION AND THE EXPANSION OF THE U.S. GLOBAL NUTRITION FINANCING ALLIANCE.

Private sector investment in food systems and healthcare will be crucial for achieving the sustainable scaling of nutrition interventions and more inclusive economic growth in LMICs. Building on the U.S. Global Nutrition Financing Alliance<sup>129</sup> and the 2X Women's Initiative, the U.S. government can support investment in private sector enterprises that are poised to deliver market-based solutions to global malnutrition. This would help overcome supply-chain obstacles to ensure that food producers, processors, and retailers are able to bring more affordable, nutritious foods to markets.

Promising small and medium enterprises (SMEs) with the potential to positively support nutritious value chains may require flexible grant capital and/or technical assistance to ensure they are investment-ready. This type of financing has long been deployed by USAID to foster private sector solutions to development challenges. Nourish the Future would make available an additional \$50 million in flexible grant capital, programmed through USAID, to provide the full range of blended finance and grant support to promising SMEs. This would unlock up to \$1 billion in investment capital from the DFC for private sector companies working to improve nutrition.

Target investments would include: improved production and supply chain for vegetables and fruits, as well as eggs and other animal-sourced foods; biofortified crops; large-scale food fortification; and localized production of ready-to-use therapeutic and complementary foods. Where possible, these investments would also focus on women-owned enterprises. By strengthening the Global Nutrition Financing Alliance and leveraging the skills and expertise of the DFC and USAID around this common objective, a \$50 million commitment of first loss and grant resources would unlock hundreds of millions in investment resources to both prevent and respond to malnutrition through self-sustaining business solutions. Ultimately, as President Biden recently said, "When we invest in the economic development of countries, we create new markets for our products and reduce the likelihood of instability, violence, and mass migrations."<sup>130</sup>

In addition, Feed the Future's Partnering for Innovation initiative aims to strengthen local small- and medium-sized agribusinesses that supply products and services for smallholder farmers. It provides investment assistance, expert guidance, and technical support to help businesses expand in emerging markets and build a sustainable customer base for their agricultural innovations. Many Partnering for Innovation activities involve food processing, which presents an opportunity to scale up a vital nutritional intervention—the large-scale fortification of staple foods—to improve the micronutrient profile of the affordable foods that are already the mainstay of local diets.



<sup>129</sup> "ECF Announces Collaboration With DFC Partner To Fight Global Malnutrition," Eleanor Crook Foundation, August 6, 2020, <https://eleanorcrookfoundation.org/resources/global-nutrition-financing-alliance/>.

<sup>130</sup> White House, "Remarks by President Biden on America's Place in the World," WH.gov [speech given at U.S. Department of State Headquarters], February 4, 2021, <https://www.whitehouse.gov/briefing-room/speeches-remarks/2021/02/04/remarks-by-president-biden-on-americas-place-in-the-world/>.

With Nourish the Future, the United States can help countries close the micronutrient gap by enhancing partnerships with local food processors and other private sector actors to enrich the nutritional value of the staple foods that people rely on. Objectives should include:

- **Expanding Large-Scale Food Fortification.** Twenty-five years ago, the World Bank declared that “probably no other technology available today offers as large an opportunity to improve lives and accelerate development at such low cost and in such a short time”<sup>131</sup> as large-scale food fortification. It is highly cost-effective, with every dollar invested yielding \$27 in return.<sup>132</sup> This approach provides a powerful private sector pathway to deliver daily nutrients to large populations. Fortification of regularly consumed staple foods—such as flour, salt and cooking oil—has proven to be highly effective in reducing micronutrient deficiencies in both developed and developing countries. Yet, despite the enormous public health successes achieved by large-scale food fortification, it has yet to reach its full potential. Nourish the Future would make support for national fortification programs a cornerstone of the U.S. government’s engagement, drawing on the technical assistance of USAID, the U.S. Department of Agriculture, the Centers for Disease Control and Prevention, the private sector (including and especially local private sector companies), and in-country experts. Nourish the Future proposes accelerating the food processing guidance currently being developed, ensuring that USAID programming works toward more equitable access to fortified foods by scaling up nutrition-sensitive, micronutrient-rich food processing technologies developed through Feed the Future Innovation Labs.
- **Scaling-up LNS in highly food insecure contexts.** Children over the age of six months require nutrient-rich diets (in addition to breast milk) in order to survive and thrive. In places where nutritious food is unavailable or unaffordable, distribution of complementary foods—such as lipid-based nutrient supplements (LNS)—can reduce the burden of wasting, stunting, and anemia, and can reduce young children’s risk of mortality by 27 percent.<sup>133</sup> Through Nourish the Future, the U.S. government could support local production of LNS<sup>134</sup> as part of USAID’s food basket, particularly during hunger seasons or in conflict-driven crises. Scaling LNS in these contexts could avert millions of cases of stunting and preventable child deaths.<sup>135</sup> Driving local food systems to accelerate local production of these vital products will boost local markets and livelihoods.



<sup>131</sup> “Enriching Lives: Overcoming Vitamin and Mineral Malnutrition in Developing Countries,” World Bank, November 1999, <http://documents1.worldbank.org/curated/en/938771467989505587/pdf/multi0page.pdf>.

<sup>132</sup> “Maternal and Child Undernutrition Progress,” The Lancet.

<sup>133</sup> Christine P. Stewart et al., “Lipid-Based Nutrient Supplements.”

<sup>134</sup> Kristine Caiafa, Shelley Walton, Beatrix Lorge Rogers, and Patrick Webb, “Improvements to the USAID/FFP Food Basket: Product Upgrades and Innovations, Processes for Modifying the Food Basket, and Communications with Partners,” USAID, January 2019, <https://foodaidquality.org/improvements-usaidffp-food-basket-product-upgrades-and-innovations-processes-modifying-food-basket>.

<sup>135</sup> R. A. Heidkamp et al., “Mobilising Evidence, Data, and Resources to Achieve Global Maternal and Child Undernutrition Targets and the Sustainable Development Goals: An Agenda for Action,” Lancet 397, no. 10282 (2021): 1400–18. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)00568-7/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00568-7/fulltext).



# NOURISH THE FUTURE ARCHITECTURE

## GLOBAL COORDINATION

Because malnutrition is caused by a complex array of factors, it requires a multisectoral approach—including strengthening both food systems and health systems—to fully put deadly malnutrition in the past. Because of this, effective nutrition response requires a unique level of alignment and cooperation across sectors and bureaus—especially between agriculture and health systems. Yet, today’s U.S. global nutrition architecture is fragmented and fails to take advantage of synergies and economies of scale at the global- and country-level. Delivering sustainable progress against malnutrition on the level of Nourish the Future would require a nimble bureaucratic structure and a whole-of-government approach.

To address these considerations, Nourish the Future could be housed at USAID and led by a coordinator—a presidential appointee reporting directly to the USAID administrator. The coordinator would be responsible for finalizing the global Nourish the Future strategy to scale proven nutrition interventions in priority countries. This position would ensure USAID’s global health and food security programs are equally focused on bringing high-impact nutrition programs to scale and that they are coordinated and co-located whenever possible. The coordinator could also ensure better contribution and alignment from other sectors that directly impact malnutrition, such as social protection, access to water, sanitation, hygiene (WASH), and gender.

USAID has already taken steps to ensure the agency’s organizational structure is equipped to address the global malnutrition crisis. The establishment of a chief nutritionist has elevated senior nutrition technical expertise for the agency. USAID could consider dual-hatting the chief nutritionist as the Nourish the Future coordinator, further reinforcing that position’s role across the agency. In addition, the creation of the Nutrition Leadership Council (NLC) has brought representatives from across the agency together to discuss shared strategy and implementation. The work to create and institutionalize the NLC provides a platform for the Nourish the Future coordinator to drive the unified strategy that will be required to achieve this proposal’s potential outcomes.

In Nourish the Future priority countries, mission directors would oversee the implementation of country strategies that align, where possible, with USAID global health and food security programming and, where relevant, leverage the expertise and contributions of other U.S. government agencies. In addition, mission directors would be asked to work closely with the partner country governments to ensure matching domestic resource investments and overall alignment with national nutrition, health, and agriculture planning.



At the country level, USAID missions would benefit from the appointment of expert nutrition advisors within each country team who would facilitate the same degree of cross-sector alignment at the country level and be responsible for the day-to-day leadership of strategy implementation, partner engagement, and program oversight. Nutrition advisors within each country team would coordinate across sectors within USAID and help develop and implement Nourish the Future country strategies. This would include conducting nutrition risk assessments, assessing diet and micronutrient gaps in target populations, developing Power 4 Scale Up Plans, and designing food-processing interventions. These strategies would address financing and supply chain needs while ensuring that the delivery of each intervention is sustainably integrated into national systems and appropriately tailored to local contexts.

Nutrition advisors would work in coordination with in-country Scaling Up Nutrition (SUN) focal points while routinely engaging partner-country governmental counterparts, in-country civil society, affected communities, UN agency stakeholders, and implementation partners. Missions working in sub-Saharan Africa would also coordinate with the African Leaders for Nutrition initiative (ALN)<sup>136</sup>— which comprises current and former heads of state, finance ministers, and other eminent leaders—in order to develop and strengthen relationships with governmental counterparts and catalyze sustained, high-level political leadership against malnutrition.

Although this proposal focuses on USAID and multilateral contributions to achieving these goals, many other U.S. government agencies have a critical role to play in the fight against malnutrition. The Nourish the Future coordinator, working with the National Security Council, should leverage the interagency Global Nutrition Coordination Plan, the U.S. Global Food Security Strategy, U.S. government Nutrition Champions, and agency programming at key U.S. governmental agencies such as the Department of State, Department of Health and Human Services, Department of Agriculture, the Centers for Disease Control and Prevention, the Development Finance Corporation, the Millennium Challenge Corporation, the Peace Corps, the Department of Treasury, and other relevant agencies.



<sup>136</sup> With a special focus on the first 1,000 days of a child's life and the gray matter infrastructure, the initiative aims to spur political engagement, build partnerships and generate innovative investments towards nutrition and food security that will build a foundation for productive human capital in Africa.





## MONITORING, EVALUATION, TRANSPARENCY, AND ACCOUNTABILITY

Incomplete and inconsistent public data has limited key stakeholders' ability to fully engage with current global malnutrition programming. Where possible, data on the activities and progress of Nourish the Future—beyond disbursements—should be made available and include existing, well-established, regularly collected indicators. Such markers should measure the impact of programming or serve as valid, evidenced-based proxies for impact. Indicators should be high on the results chain, with impact and outcome indicators and impact-correlated output indicators prioritized over input or process indicators. Selected indicators should reflect a clear and direct contribution from USAID-funded activities and should help identify real-time opportunities to accelerate impact—as well as the need for adaptation and course correction. Indicators will provide the real-time data necessary to measure the progress of Nourish the Future outcomes against the baseline. Importantly, ambitious national coverage targets for each Power 4 intervention should be set in each Nourish the Future country. Evaluation data should be accessible to key nontechnical audiences such as the engaged public, and U.S. Congress should receive annual government reports regarding Nourish the Future programming.



## RESEARCH AND INNOVATION

Nourish the Future would support the development of research agendas tailored to country contexts. Nourish the Future research should focus specifically on innovations to improve the coverage of priority interventions and reduce the cost. Implementation research is critical for further identifying and investigating improved channels for delivering nutrition interventions at scale, from the local community to the national level. While the Power 4 and food systems transformations are well-proven interventions, with additional investments in research and development they can be even more cost-effective, efficient, sustainably delivered, and in alignment with countries' existing policies and programs. To help achieve this, Nourish the Future should include a specific research agenda that leverages the ingenuity of American universities and research institutions, as well as institutions in Nourish the Future countries and the CGIAR system. Where possible, these investments would reinforce and expand existing Feed the Future Innovation labs, which have already played a critical role in testing innovations and improving US global agriculture and nutrition programming.



In addition to improving the delivery of the Power 4, Nourish the Future could invest in research and development aimed at improving the nutritional quality of food through biofortification and dietary diversification. There is robust scientific evidence that regular consumption of traditionally cooked biofortified food crops improves the nutritional status of rural mothers, young children, and other vulnerable groups.<sup>137</sup> Through Nourish the Future, the United States can boost the generation and practical application of evidence to support development, marketing, impact, and effectiveness of biofortified foods. This would include support for research via National Agricultural Research and Extension Systems (NARES), as well as and through global programs such as the HarvestPlus initiative of the CGIAR System or similar initiatives. A commitment as part of the Nourish the Future program to research and develop nutrition-sensitive agriculture could also support country-led efforts through NARES and other partners. This will result in a better understanding of the economic, cultural, and environmental factors driving food choice, along with enhancing value chains for fresh fruits, vegetables, and appropriate animal-source proteins. The goal is expanding access to—and acceptance of—a wider variety of nutritious fresh foods, especially for women and children.

In addition, through Nourish the Future, the United States could resume global leadership in evidence-based policy and programming aimed at improving year-round consumption of safe, affordable, nutritious food for women and children. Historically, USAID has led the way in expanding the evidence base that explores how investments in the agricultural sector can improve nutrition outcomes—when they are designed from the outset to achieve these objectives. Through Nourish the Future, the United States can restore its commitment to proven, effective action aimed at reducing the global burden of malnutrition through food, enhancing both its food security and nutrition programming. USAID can once again set the gold standard for evidence-based policy and programming within food security, agriculture, and nutrition, including recognizing their crucial links to women's empowerment. Nourish the Future offers an opportunity to recommit USAID to strengthening the evidence base and expanding policy and programming built on this knowledge, including the restoration of USAID's commitment to expanding data collection, improving the quality of data and evidence, and scaling up proven interventions.

<sup>137</sup> H. E. Bouis and A. Saltzman, "Improving Nutrition through Biofortification: A Review of Evidence from HarvestPlus, 2003 through 2016," *Global Food Security* 12 (2017): 49–58, <https://doi.org/10.1016/j.gfs.2017.01.009>.





Priority research areas should include:

- Innovative product formulations and improved protocols for the treatment of wasting to help ensure resources can be more efficiently deployed.
- Understanding end-user demand to ensure products and programs are culturally appropriate and locally tailored to maximize uptake of, and adherence to, nutrition services delivered through health systems.
- Costing and cost-effectiveness analyses to evaluate appropriate resource allocation and prioritization.
- Health systems integration through improved training, supply chain management, and monitoring to ensure sustained last-mile delivery for the Power 4 package of interventions.
- Biofortification, including continued identification of nutritionally superior crops and mechanisms for mainstreaming micronutrients in product lines for all major staples.
- Value chain and consumption analysis to ensure that everyone in the value chain (especially women, smallholder farmers, and casual laborers that are often most marginalized) can access and purchase nutritious food.
- Data analysis on foodborne illnesses and outbreaks, as well as recommendations for health system and laboratory-capacity development and risk-based prioritization of investments to bolster improvements in food safety and loss.
- Analysis on the impact of the climate crisis on diet diversity and micronutrient status, including the identification of mitigation efforts that strengthen the delivery of nutrition interventions and food systems transformations at the community level.

Impactful research and innovation will require the establishment of a robust framework and the implementation of research agendas that are tailored to country contexts.



# THE PATH FORWARD

Despite progress, malnutrition remains the number one killer of children, taking the lives of more kids under the age of five each year than AIDS, malaria, and tuberculosis combined.

Malnutrition is preventable and treatable. Proven interventions to address it not only work but are some of the most cost-effective solutions in the global health and development sectors. Yet, global progress in scaling up these solutions has been slow. A lack of investment, a lack of coordination, and a lack of political leadership have prevented coverage—and impact—at scale.



**“It’s all within our power, it’s within our capacity to deal with this ... We know how to do this.”**

*– President Joe Biden,  
15th Annual Gala to End Hunger*

<sup>1</sup> <https://pubmed.ncbi.nlm.nih.gov/19772545/>

<sup>2</sup> <http://glopan.org/sites/default/files/pictures/CostOfMalnutrition.pdf>





Led by the Biden administration, Nourish the Future would be a smart, global plan to tackle malnutrition in the hardest hit communities of the highest burden countries, achieving an up to 11 percent reduction in total child deaths. For less than a third of what Americans spend on Halloween candy each year, the Biden administration could lead the child survival revolution.

Nourish the Future would scale proven interventions, build upon existing bipartisan support for nutrition programming,<sup>138</sup> assert bold global leadership, and build partnerships with country governments, and the private sector. Scaling up the fight against global hunger and malnutrition presents an unparalleled opportunity to save lives, improve education, build human potential, amplify investments in already existing health systems and food systems, promote peace, security, and equality, combat the effects of climate change, and reinvigorate U.S. leadership in the world. It is an opportunity to produce dramatic, tangible results on a global scale and in a short timeframe and builds on a long history of bipartisan US leadership in the fight to end hunger and preventable child deaths. With sustained determination, global vision, and adequate financing, Nourish the Future could help build a world where every mother and father are able to nourish their children. Millions of lives—and the human potential inherent in that multitude of futures—are at risk. But it's not too late to nourish the future by bringing these basic, life-altering nutrition interventions to the women and children who need them most.

As Joe Biden said in 2018 regarding ending hunger and malnutrition at the 15th Annual Gala to End Hunger: "It's all within our power, it's within our capacity to deal with this ... We know how to do this."<sup>139</sup>

<sup>138</sup> Supporting Sustained United States Leadership to Accelerating Global Progress against Maternal and Child Malnutrition and Supporting United States Agency for International Development's Commitment to Global Nutrition through Its Multi-Sectoral Nutrition Strategy, H.R. 189, 116th Cong. (2019–2020), <https://www.congress.gov/bills/116th-congress/house-resolution/189>; A Resolution Recognizing the Importance of Sustained United States Leadership to Accelerating Global Progress against Maternal and Child Malnutrition and Supporting the Commitment of the United States Agency for International Development to Reducing Global Malnutrition through the Multi-Sectoral Nutrition Strategy, S.R. 260, 116th Cong. (2019–2020), <https://www.congress.gov/bills/116th-congress/senate-resolution/260/>.

<sup>139</sup> "VP Joe Biden's Speech at 15th Annual Gala to End Hunger," YouTube video, December 19, 2018, <https://www.youtube.com/watch?v=3DuiFkvD29c>.

# REQUIRED RESOURCES

Achieving the transformative reductions outlined in Nourish the Future would require an additional \$887 million per year over the next five years.

This includes:

- Resources to USAID's global health bureau to scale up the Power 4 (prenatal vitamins, breastfeeding, and vitamin A supplementation to 95 percent coverage and wasting treatment to 50 percent coverage) in nine priority countries
- Funding to UNICEF to support No Time to Waste and strengthen UN action on wasting.
- Investment in U.S. farmers and therapeutic food producers, coupled with support for local and regional producers of RUTF.
- Support for integrating nutrition services into child immunization efforts, aligned with and reinforcing Gavi's 2021–2025 strategy.
- Additional investment in Feed the Future to strengthen and expand its impact on nutrition outcomes.
- Flexible grant capital, programmed through USAID, in support of the goals of the U.S. Global Nutrition Financing Alliance.
- Investment in research and innovation, including the expansion or establishment of partnerships between U.S. universities and research institutions in priority countries.

Providing this investment would not only allow the United States to save at least two million lives, reducing total child deaths in priority countries by up to 11 percent and cutting severe malnutrition in half. It would also measurably bolster the impact of other major U.S. global health and development programs.



As President Biden has said,

**“Ending hunger and malnutrition at home and around the world is consequential. If we do nothing today, food insecurity will loom as an even larger and bigger threat tomorrow. You’re fostering a world that is more just and peaceful.”<sup>140</sup>**

<sup>140</sup> “Tom Hanks Hosts ‘Celebrating America,’ a Program Honoring the Inauguration of President Joe Biden,” YouTube video, January 20, 2021 [“Celebrating Americans Who Feed Us” at 1:01:18 mark], <https://www.youtube.com/watch?v=SpONYPuckY8>.





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