UNITED STATES GOVERNMENT GLOBAL NUTRITION COORDINATION PLAN 2021–2026

USAID FROM THE AMERICAN PEOPLE

CDC CENTERS FOR DISEASE CONTROL AND PREVENTION

USDA

DEPARTMENT OF HEALTH & HUMAN SERVICES · USA

DEPARTMENT OF STATE · UNITED STATES OF AMERICA

DFC

FDA

MILLENNIUM CHALLENGE CORPORATION · UNITED STATES OF AMERICA

Peace Corps

Cover photo
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ACRONYMS

AIDS . . . . . acquired immunodeficiency syndrome

AMS . . . . . Agricultural Marketing Service

ARS . . . . . Agricultural Research Service

BFHI . . . . . Baby-Friendly Hospital Initiative

BMI . . . . . body mass index

BRINDA . . . . . Biomarkers Reflecting Inflammation and Nutrition Determinants of Anemia

CDC . . . . . Centers for Disease Control and Prevention

CNPP . . . . . Center for Nutrition Policy and Promotion

COVID-19 . . . . . coronavirus disease of 2019 (novel coronavirus SARS-CoV-2)

DFC . . . . . U.S. International Development Finance Corporation

DHS . . . . . Demographic and Health Surveys

D-NCDs . . . . . diet-related non-communicable diseases

ENA . . . . . essential nutrition actions

ERS . . . . . Economic Research Service

FAS . . . . . Foreign Agricultural Service

FDA . . . . . U.S. Food and Drug Administration

FNS . . . . . Food and Nutrition Service

FSIS . . . . . Food Safety and Inspection Service

G7 . . . . . Group of 7

GNCP . . . . . U.S. Government Global Nutrition Coordination Plan

HHS . . . . . U.S. Department of Health and Human Services

HHS/OGA . . . . . U.S. Department of Health and Human Services, Office of Global Affairs

HIV . . . . . human immunodeficiency virus

IMMPaCt . . . . . International Micronutrient Malnutrition Prevention and Control

MCC . . . . . Millennium Challenge Corporation

NICHD . . . . . Eunice Kennedy Shriver National Institute of Child Health and Human Development

NIFA . . . . . National Institute of Food and Agriculture

NIH . . . . . National Institutes of Health

OCS . . . . . Office of the Chief Scientist

OGA . . . . . Office of Global Affairs

OES/IHB . . . . . Office of International Health and Biodefense

PEPFAR . . . . . President's Emergency Plan for AIDS Relief

PMI . . . . . President's Malaria Initiative

RUTF . . . . . ready-to-use therapeutic food

SDG . . . . . Sustainable Development Goals

S/GAC . . . . . Office of the U.S. AIDS Coordinator and Health Diplomacy

S/GFS . . . . . Office of Global Food Security

SUN . . . . . Scaling Up Nutrition Movement

TOR . . . . . terms of reference

TWG . . . . . technical working group

UN . . . . . United Nations

UNICEF . . . . . United Nations Children's Fund

USAID . . . . . U.S. Agency for International Development

USDA . . . . . U.S. Department of Agriculture

USG . . . . . U.S. government

USGS . . . . . U.S. Geological Survey

WFP . . . . . World Food Programme

WHO . . . . . World Health Organization

WHA . . . . . World Health Assembly

WIC . . . . . USDA Special Supplemental Nutrition Program for Women, Infants, and Children

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This second U.S. Government Global Nutrition Coordination Plan 2021–2026 (referred to herein as the Plan) was drafted by members of the first Plan's technical working group (TWG), known as the drafting committee, which consisted of representatives of the following U.S. government agencies and departments: U.S. International Development Finance Corporation (DFC), Millennium Challenge Corporation, Peace Corps, U.S. Agency for International Development (USAID), U.S. Department of Agriculture (USDA—including the Office of the Chief Scientist, the Foreign Agricultural Service, and the Food and Nutrition Service), U.S. Department of Health and Human Services (HHS—including the Office of Global Affairs, Centers for Disease Control and Prevention, Food and Drug Administration, and National Institutes of Health), and the U.S. Department of State.

This consultative process took place over the course of 2020–2021, building on the first Plan (2016–2021) and lessons learned from that experience. In particular, it was informed by a stocktaking exercise involving interviews with individuals from across the U.S. government who participated in the first Plan to identify what had worked well and what changes could strengthen implementation and outcomes of the follow-on Plan.

A small sub-group referred to as the core group guided the drafting committee, comprised of the three co-chairs of the TWG along with the first Coordination Plan's senior facilitator. In addition, a number of *ad hoc* working groups formed within the drafting committee to flesh out the details of the second Plan. Groups consulted the full drafting committee frequently to ensure that the focus, priorities, and content proposed by the *ad hoc* working groups met technical standards and the realities of the diverse array of agencies and departments involved in the TWG. A newly formed group of senior nutrition champions, representing all the participating U.S. government agencies and departments, provided guidance in the development of the second Plan and will support its implementation in the coming years.

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PREFACE

The second U.S. Government Global Nutrition Coordination Plan 2021–2026 builds on the accomplishments of the first Plan covering 2016–2021, and specifically focuses on further strengthening the mechanisms and processes for convening experts from across the participating U.S. government agencies and departments to harmonize their contributions to advancing global and domestic nutrition.

As a global nutrition leader committed to the international development agenda, the U.S. government implements a tremendous breadth and depth of activities relevant to global nutrition. The first Plan emerged to magnify the impact of U.S. investments in global nutrition through more regular and organized sharing of expertise, best practices, and learning from across the many agencies and departments engaged in protecting and enhancing nutrition domestically and internationally. The second Plan intends to continue the effort and further strengthen coordination.

As with the first Plan, this second Plan does not bring additional funding, but it provides a structure and roadmap for interested experts from across the U.S. government to come together on a voluntary basis to identify opportunities to advance shared nutrition priorities. The collaboration aims to build synergies and increase efficiencies in the government's investments towards achieving global nutrition goals. The expertise found within the participating agencies and departments spans nutrition, food safety, public health, infectious disease, agriculture, food security, economics, education, water and sanitation, and many other systems and technical areas (including basic nutritional research) important for nutrition outcomes. The problem of malnutrition is complex, with multi-sectoral causes, so it is important that the Plan draw on all this knowledge, talent, and commitment.

The first Plan established the structures for this voluntary exchange and collaboration, including a permanent technical working group (TWG), consisting of representatives from participating agencies and departments who met regularly to share information on research, programs, and policies. It supported a rich series of internal and public presentations to share the work of its members that was relevant to global and domestic nutrition.

The second Plan builds on these accomplishments, identifies a set of results to be tracked over time to assess the overall progress by the collaborative, and formed a group of senior nutrition champions to elevate attention to both global and domestic nutrition issues to the highest levels of the participating agencies and departments. As before, the second Plan is not intended to be a rigid structure directing U.S. government investments into specific programming areas, but rather, serves as a flexible coordination platform that will evolve as needed, based on U.S. government achievements and changes in the global and domestic nutrition landscape.

The hope of all of the contributors to this Plan is that the synergies created through the

coordinated efforts of the U.S. government will contribute importantly to the survival, well-being, and optimal development of current and future generations.

VISION STATEMENT

The vision of the U.S. Government Global Nutrition Coordination plan is *to save millions of lives and promote broad-based economic development by ending malnutrition in all its forms, optimizing U.S. government technical and financial resources, and convening capacity, to elevate nutrition as essential to enhancing health and well-being.*

The evidence is overwhelming that good nutrition is central to saving lives and advancing human potential and that there are proven, scalable solutions.[1] The United States has a long history of global leadership supporting research to accumulate evidence on what works and translating the findings into delivery at scale. The U.S. has three fundamental assets to advance global nutrition: technical expertise, financial resources, and convening capacity.

The global community has achieved considerable progress in recent decades, but challenges are significant; redoubled efforts will be necessary to enable each country to reach the nutrition targets defined by the global community.[2] Collective efforts are needed to protect and accelerate these advances now more than ever in the face of the disruptions to economic, health, and food systems caused by the novel coronavirus of 2019 (COVID-19) pandemic, and current and expected future threats.

Global food production is sufficient to nourish everyone on the planet,[3] yet stunting, wasting, or overweight affect more than one in three children under 5, and deficiencies in vitamins and other essential nutrients affect one in two.[4] An estimated one-third of food produced globally is lost or wasted before it reaches consumers.[5] This disconnect is the result of food systems that do not yet make sufficient nutrient-rich and safe foods available, accessible, affordable, and desirable to all[6]—and health systems that do not yet assure preventive and curative nutrition services for all.[7] It is also due to a shortage of financing and other resources needed to achieve transformational rather than incremental change.[8]

It is imperative that we overcome these challenges, as each day, malnutrition is robbing individuals of the chance to reach their full potential, thrive, and contribute to social, economic, and political progress. Well-nourished children perform better in school, are more productive adult workers, incur fewer health

1 Heidkamp, R.A., E. Piwoz, S. Gillespie, E.C. Keats, M.R. D'Alimonte, P. Menon, J.K. Das, et. al. 2021. "Mobilising Evidence, Data, and Resources to Achieve Global Maternal and Child Undernutrition Targets and the Sustainable Development Goals: An Agenda for Action." *The Lancet, 397*(10282), 1400–1418. doi.org/10.1016/S0140-6736(21)00568-7

2 World Health Organization (WHO). 2014. *Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition*. Geneva: WHO.

3 FAO, IFAD, UNICEF, WFP and WHO. 2020. *The State of Food Security and Nutrition in the World 2020. Transforming Food Systems for Affordable Healthy Diets*. Rome: FAO.

4 UNICEF 2019. *The State of the World's Children 2019. Children, Food and Nutrition: Growing Well in a Changing World*. New York: UNICEF.

5 Hawken, P. (ed) 2017. *Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming*. New York: Penguin.

6 Global Panel on Agriculture and Food Systems for Nutrition (GLOPAN). 2020. *Future Food Systems: For People, Our Planet, and Prosperity*. London: GLOPAN.

7 Development Initiatives. 2020.

8 Shekar, M., J. Kakietek, J.D. Eberwein, and D. Walters 2017. *An Investment Framework for Nutrition: Reaching the Global Targets for Stunting, Anemia, Breastfeeding, and Wasting*. Directions in Development. Washington, DC: World Bank.

expenses, and live longer.[9] On average, every $1 invested in nutrition yields returns to economies of $16, and in some countries the returns are far greater.[10]

The U.S. government has considerable technical, financial, and convening capacity to advance solutions to the multiple problems of malnutrition; concerted effort to better coordinate the contributions of the diverse experts, offices, and agencies across the government would further strengthen its contributions. These resources include: the ability to convene political and philanthropic leaders and support accelerated action and appropriate policy responses, the research and delivery of improved technical approaches, and the mobilization of financial contributions to the *Investment Framework for Nutrition*[11] to achieve the World Health Assembly (WHA) 2025 global nutrition targets.[12]

9 Global Panel of Agriculture and Food Systems for Nutrition (GLOPAN). 2016. *The Cost of Malnutrition. Why Policy Action is Urgent*. London: GLOPAN.

10 International Food Policy Research Institute (IFPRI). 2014. *Global Nutrition Report 2014: Actions and Accountability to Accelerate the World's Progress on Nutrition*. Washington, DC: IFPRI.
Hoddinott, J., H. Alderman, J.R. Behrman, L. Haddad, S. Horton. 2013. "The Economic Rationale for Investing in Stunting Reduction." *Maternal and Child Nutrition*.9(2): 69–82. https://doi.org/10.1111/mcn.12080

11 Shekar, M., et. al. 2017. The goal, set before the novel coronavirus of 2019, was to raise a total of $7 billion/year globally over 10 years. USG tracks resource contributions to achieve the WHA targets through global accountability efforts like the *Global Nutrition Report* and Results for Development's research on progress towards the Investment Framework; see https://r4d.org/resources/tracking-aid-wha-nutrition-targets-global-spending-roadmap-better-data.

12 World Health Organization (WHO). 2014. "Global Targets 2025." Accessed November 16, 2021. https://apps.who.int/nutrition/global-target-2025/en/index.html

SECTION 1: CONTEXT OF GLOBAL NUTRITION

Since the publication of the first *Lancet* Series on Maternal and Child Undernutrition in 2008, the global community has coalesced around the scope and urgency of the problem, the evidence-based interventions to deliver at scale, the need for multi-sectoral strategies to tackle the many complex determinants of malnutrition, and the architecture to facilitate concerted action. In 2010, the Scaling Up Nutrition (SUN) Movement was launched and has continued to grow in the numbers of participating countries and the relevance of its strategies. Two years later, the WHA endorsed a comprehensive implementation plan to achieve six global nutrition targets by 2025 (see table 1): reduce stunting in children under 5, childhood wasting, and low birthweight; interrupt the increase in child overweight; reduce anemia in women of reproductive age; and increase the exclusive breastfeeding rate.[13] In 2015, the Sustainable Development Goals (SDG) launched, incorporating the WHA goals for stunting and wasting within Goal 2 of zero hunger.

Table 1: World Health Assembly and Sustainable Development Goals, Targets, and Current Estimates[14]

Indicator	Baseline 2010–12	Prevalence 2015–19	Numbers in 2019	Target 2025	Target 2030[15]
Stunting in children under 5	165 million	22.9%	149.2 million	~100 million	82.5 million
Childhood wasting	8.6%	6.7%	45.4 million	<5%	<3%
Overweight in children under 5	6%	5.7%	38.9 million	≤6%	<3%
Anemia (Hb) in women of reproductive age	30.3%	29.9%	539 million	15%	15%
Low birthweight	15.5%	14.6%	20.5 million	10%	10%
Exclusive breastfeeding	38%	44%		≥50%	≥70%

Date of most current prevalence/population estimates varies by indicator. Women's anemia baseline drawn from worldwide prevalence report 1993–2005. Numbers indicate population with each condition. Hb: hemoglobin concentration.

13 WHO 2014

14 WHO. 2017. *Global Nutrition Monitoring Framework: Operational Guidance for Tracking Progress in Meeting Targets for 2025.* Geneva: WHO. Development Initiatives 2020; UNICEF global databases; United Nations Children's Fund (UNICEF), World Health Organization, World Bank. 2021. *Levels and Trends in Child Malnutrition: Key Findings of the 2021 Edition of the Joint Child Malnutrition Estimates.* Geneva: World Health Organization. World Health Organization (WHO). 2021. "WHO Global Anaemia estimates, 2021 Edition." Accessed November 16, 2021.https://www.who.int/data/gho/data/themes/topics/anaemia_in_women_and_children.

15 These targets were proposed in: WHO. n.d. "The Extension of the 2025 Maternal, Infant, and Young Child Nutrition Targets to 2030." WHO/UNICEF Discussion Paper. Accessed November 16, 2021. https://www.who.int/nutrition/global-target-2025/discussion-paper-extension-targets-2030.pdf?ua=1

Despite this unprecedented global alignment on targets and approaches for improved nutrition, no country is currently on track to achieve all of the targets, and 88 of 194 countries reviewed by the Global Nutrition Report are not on track to reach a single target.[16] As reflected in **table 1**, estimates in 2019 were that stunting still affects 149.2 million children under 5 years of age, or over one-fifth of all children in that age range; wasting threatens the lives of 45.4 million, and overweight has increased to over 38 million.[17]

Around the world, armed conflict, increasing weather extremes, natural disasters, and rapid population growth in some regions magnify challenges to progress. With the emergence of COVID-19, estimates suggest the pandemic will most likely slow progress and could even reverse gains, as measures to mitigate the spread of infection disrupt markets, transportation, livelihoods, and access to health services, putting more, not fewer, women and children at risk.[18]

However, these projections are not destiny: determined, coordinated efforts and advocacy by the U.S. government and all partners and stakeholders to increase policy prioritization, deliver proven interventions, strengthen health systems, and build foods systems that support healthy consumption patterns could get the world on track to reach these crucial goals.[19]

16 Development Initiatives 2020

17 UNICEF, WHO, World Bank. 2020.

18 Headey, D., R. Heidkamp, S. Osendarp. M. Ruel, N. Scott, R. Black, M. Shekar, et. al. 2020. "Impacts of COVID-19 on Childhood Malnutrition and Nutrition-related Mortality". *The Lancet*, 396(10250): 519–521. doi.org/10.1016/S0140-6736(20)31647-0

19 GLOPAN 2020

SECTION 2: PURPOSE, NUTRITION PRIORITIES, AND ACTION AREAS

The purpose of the Global Nutrition Coordination Plan is *to maximize the impact of investments across the continuum of nutrition-related policies, programs, and other efforts to accelerate achievement of global nutrition goals and increase whole-of-government responsiveness to emerging evidence, opportunities, and threats.*

The second Coordination Plan aims to harness and leverage the power of the many diverse investments across the U.S. government through better collaboration and coordination. This voluntary effort seeks to focus attention on and create synergies around a set of six nutrition priorities, five relating to programs and one relating to policy initiatives (see **figure 1**). Focusing on these nutrition priorities is intended to enhance U.S. contributions to global efforts to eliminate hunger and malnutrition in all its forms and build more effective leadership in overcoming current and incipient challenges.

Figure 1: Global Nutrition Coordination Plan 2.0 Framework

VISION

Save millions of lives and promote broad-based economic development by ending malnutrition in all its forms, optimizing U.S. government technical and financial resources, and convening capacity, to elevate nutrition as essential to enhancing health and well-being.

PURPOSE

To maximize the impact of investments across the continuum of nutrition-related policies, programs, and other efforts to accelerate achievement of global nutrition goals and increase whole-of-government responsiveness to emerging evidence, opportunities, and threats.

Action Area 1 Promote leadership and partnership	**Action Area 2** Support country- and region-led efforts	**Action Area 3** Generate, share, and apply knowledge and evidence

GLOBAL NUTRITION PROGRAM PRIORITIES

1. Women's nutrition before and during pregnancy and lactation
2. Breastfeeding and complementary feeding (0–24 months)
3. Prevention and management of wasting in children under five years of age
4. Micronutrient sufficiency
5. Issues of special emphasis (e.g., COVID-19 and other health emergencies, nutrition during middle-childhood and adolescence; overweight/obesity, diet-related noncommunicable diseases (D-NCDs), environmental health, and climate)

Cross-cutting priority: Nutrition-relevant policies and opportunities for high-level engagement

Systems Affecting Human Nutrition:					
Food	Health	Water and Sanitation	Education	Environment	Social Protection

Guiding Principles:
Equity—Diversity and Inclusion—Locally-led—Gender Integration—Evidence-based—Multi-sectoral—Accountability

U.S. Government Assets to Strengthen Coordination

U.S. Government Agencies and Departments Supporting the Vision

As shown in **figure 1**, the Coordination Plan acknowledges the importance of addressing these nutrition priorities using a **multi-sectoral systems approach,** since factors emanating from many complex systems have a bearing on nutrition and influence each of the Plan's nutrition priorities.[20] Taking a systems approach acknowledges the influence of not only biology and individual choices on human nutrition, but also a wide range of multi-sectoral determinants, as well as their interactions and interconnections. [21] It is also important to recognize that these systems both influence and are influenced by the economic, political, and socio-cultural context.

The major systems most relevant for the Coordination Plan's nutrition are as follows:

- **Food systems** are critical to increasing consumer access to safe, nutritious, and affordable foods—and encompass all the agricultural and commercial processes and structures required to grow, harvest, process, package, transport, market, and trade nutritious food for consumption and manage food waste and its disposal. Food systems also create opportunities for more robust livelihoods and income generation among smallholder farmers to improve their means to purchase safe and nutritious foods for their own families. External drivers from politics to climate and geography to technology influence food systems, as well as policies, programs, and institutional actions. [22]
- The **health system** comprises human, physical, scientific, medical resources, policies, and services that protect, promote, restore, and maintain health.[23]
- **Water and sanitation systems** provide the infrastructure to deliver one of the fundamental inputs to agricultural production and ensure good environmental health necessary to protect communities from the infectious pathogens that undermine health and the absorption and utilization of nutrients.
- **Education systems** build the capacity for lifelong learning and for critical thinking, convey knowledge about healthy food choices, and often provide platforms for school feeding and supplementation programs that support child nutrition and learning.
- The **environment** includes the air, water, and land that provide the foundation for life and good nutrition. Optimal nutrition requires protection from pollution and access to clean water and air, fertile soils, and a healthy habitat.
- **Social protection systems** support nutritionally vulnerable households, communities and individuals faced with conflict, crisis, shock, migration, or severe deprivation to build resilience to and mitigate long-term harm from extreme adversity. These include programs like emergency food assistance, addressing the continuum of needs from humanitarian emergencies to development, targeted cash and vouchers, and integrated school nutrition programs.

20 Taking a systems approach recognizes the many links and shared responsibility across systems and levels of society. For more background explaining the role of the many relevant systems for human nutrition, see both: UNICEF 2019. and the series of reports produced in recent years by the High Level Panel of Experts of Food Security and Nutrition: http://www.fao.org/cfs/cfs-hlpe/hlpe-reports/en/

21 UNICEF. 2019.

22 HLPE. 2017. *Nutrition and Food Systems. A report by the High Level Panel of Experts (HLPE) on Food Security and Nutrition of the Committee on World Food Security.* Rome: HLPE

23 de Savigny, D., and T. Adam (Eds). 2009. *Systems Thinking for Health Systems Strengthening.* Geneva: World Health Organization.

Figure 1 also reflects six key guiding principles for work under the second Coordination Plan: equity, diversity and inclusion, locally-led, gender integration, evidence-based, multi-sectoral approaches, and accountability (described in **box 1**).

Global Nutrition Program and Policy Priorities

The nutrition priorities for the U.S. Government Global Nutrition Coordination Plan have been selected for their potential to address *when during the life course the most damage is done by malnutrition*, and *where progress has been slowest*.

As shown in **figure 1**, the five nutrition program priorities are: women's nutrition before and during pregnancy and lactation, breastfeeding and complementary feeding (0–24 months), management of wasting in children under 5 years of age, micronutrient sufficiency, and issues of special emphasis. The sixth cross-cutting priority comprises continued U.S. government leadership supporting effective policy and accountability at all levels, from country to global, and across all sectors essential to improved nutrition. It should be noted that no additional funding is expected to be appropriated to the Plan to address these six priorities. Rather the aim is to strengthen the coordination of existing U.S. government investments in relevant programs and policies that have the potential to impact on the priorities.

The relevance of each of the Plan's priorities is clear. Malnutrition during the prenatal period has a profound and often intractable effect on mother and child. Lack of optimal breastfeeding (timely, exclusive for six months, and continuing through 24 months and beyond) complemented by access to a minimum acceptable and safe diet affects an overwhelming majority of children 6–23 months of age in low- and middle-income countries, and the damage is compounded by poverty; inadequate access to health, water and sanitation services; and the impact of these stressors on illness and the capacity to absorb nutrients consumed. Children who have wasting are at an especially elevated risk of death,[24] yet fewer than one in five of these children receives appropriate treatment. About one-quarter of the world's children and adults suffers from at least one, often multiple, micronutrient deficiencies. And while the battle against undernutrition continues, the problems of overweight and obesity are increasing in prevalence and urgency.

Climate change and the COVID-19 pandemic magnify these challenges, and all interact in complex ways to exacerbate malnutrition in all its forms. The great majority of children at risk are in low-income countries or impoverished areas of middle-income nations. These priorities should be at the top of the global health and nutrition policy agenda.

A review of the ***six nutrition program and policy priorities*** on which the Coordination Plan will focus follows.

1. Women's Nutrition Before and During Pregnancy and Lactation

The inadequate intake of nutritious foods by women of reproductive age, especially when needed to meet the elevated requirements of pregnancy and lactation, combined with poor health, contributes to the high levels of maternal undernutrition. This puts both the mother

24 Bhutta, Z. A., J.A. Berkley, R.H.J. Bandsma, M. Kerac, I. Trehan, and A. Briend.. 2017. "Severe Childhood Malnutrition." *Nature Reviews Disease Primers*, 3(1): 17067. doi.org/ 10.1038/nrdp.2017.67.

and her fetus at risk of multiple adverse impacts, including mortality and long-term health consequences. Maternal underweight and iron, folate, iodine, and calcium deficiency are especially harmful to mother and child, leading to birth defects and other poor birth outcomes.[25] Approximately 48.2 percent of women of reproductive age in South Asia and 40.7 percent in sub-Saharan Africa suffer from anemia,[26] which causes fatigue and undermines the immune system, in addition to increasing the risk of serious complications in pregnancy. Girls under age 19 are especially vulnerable, yet each year millions are forced into early marriage and childbearing. Iodine deficiency leads to goiter in women and brain damage in their children.[27] Calcium and zinc deficiencies are especially prevalent in sub-Saharan Africa and South and East Asia[28] and both can lead to poor pregnancy and birth outcomes.[29] Moreover, the earliest exposures can have the most lasting and powerful effects. Maternal undernutrition contributes to an estimated one-fifth of childhood stunting and almost one-third of childhood wasting, which results in babies being born small for gestational age, and there is also evidence of associations with impaired cognitive, emotional, motor, and social capacities,[30] as well as elevated risk for noncommunicable diseases.[31] On the other extreme, maternal obesity conveys elevated risks for gestational diabetes, preeclampsia, and delivery complications, as well as neonatal and infant death,

Box 1: Guiding Principles for GNCP

Equity: Ensure coverage for poor and hard-to-reach populations regardless of gender, class, caste, ethnicity, or sexual orientation.

Diversity and Inclusion: Prioritize and advance diversity and inclusion among our people, partners, and programs, including through meaningful participation of all stakeholders—women and girls, men and boys, marginalized groups such as youth; ethnic, racial, or religious minorities; persons with disabilities; displaced persons; indigenous peoples; lesbian, gay, bisexual, transgender, and intersex individuals; and people from all socioeconomic strata.

Locally-led: Prioritize local knowledge, increased engagement of local partners, and locally-led solutions to nutrition challenges.

Gender integration: Identify and address, in all policies and programs, gender differences and inequalities, including the roles defined for women and men.

Evidence-based: Support programming based on rigorous research, behavioral science, and field application and ensure continuous monitoring, evaluation, and learning.

Multi-sectoral: Integrated nutrition support across all relevant sectors, including health, agriculture, water and sanitation, education, and social protection.

Accountability: Promote national and global transparency through enhanced measurement and information.

25 Bhutta. Z.A., J.A.Das, A. Rizvi, M.F. Gaffey, N. Walker, S. Horton, P. Webb, et al. 2013. "Evidence-based Interventions for Improvement of Maternal and Child Nutrition: What can be Done and at What Cost?" *The Lancet*. 382(9890):452–477. doi.org/10.1016/S0140-6736(13)60996-4

26 World Health Organization, 2021

27 National Institutes of Health, Office of Dietary Supplements, 2021. "Iodine Facts for Health Professionals," Accessed November 16, 2021. https://ods.od.nih.gov/factsheets/Iodine-HealthProfessional/

28 Kumssa, D.B., E.J.M. Joy, E.L. Ander, M.J. Watts, S.D. Young, S. Walker, M.R. Broadley. 2015. "Dietary Calcium and Zinc Deficiency Risks are Decreasing but Remain Prevalent." Scientific Reports, 5:10974. doi.org/10.1038/srep10974

29 Institute of Medicine, 1990. *Nutrition During Pregnancy. Part 1 Weight Gain; Part 2 Nutrient Supplements*. Washington DC: National Academy Press.

30 Christian, P, S.E. Lee, M.D. Angel, L.S. Adair, S.E. Arifeen, P.Ashorn, F.C. Barros, et. al. 2013. "Risk of Childhood Undernutrition Related to Small-for-Gestational Age and Preterm Birth in Low- and Middle-income Countries." *International Journal of Epidemiology*, 42(5): 1340–1355. doi.org/10.1093/ije/dyt109

31 Fleming, T P, A.J. Watkins, M.A. Velazquez, J.C. Mathers, A.M Prentice, J. Stephenson, M. Barker, et.al. 2018. "Origins of Lifetime Health around the Time of Conception: Causes and Consequences." *The Lancet*, 391(10132): 1842–1852. doi.org/10.1016/S0140-6736(18)30312-X.

and fetal programming for later obesity.[32] It is imperative to intervene as early as possible to avert these potential negative outcomes.

2. Breastfeeding and Complementary Feeding (0–24 months)

This begins with optimal breastfeeding,[33] which has many benefits for mothers' health as well, including reduced risk of certain cancers.[34] Subsequent complementary feeding must offer high quality foods that provide all the essential nutrients needed to meet recommended intakes, and are also nurturing, safe, and hygienic. Optimal infant and young child feeding practices help prevent stunting and promote child survival, health, and optimal development. However, improving breastfeeding and complementary feeding practices is complex, therefore supporting and promoting the adoption of optimal practices by mothers and other child caretakers requires social and behavior change interventions combined with multi-sectoral strategies that improve the availability, access, and affordability of healthy foods. Strategies that strengthen health systems and improve policies to support breastfeeding are also critical. The most recent data show that exclusive breastfeeding for six months has increased to 44 percent globally, yet less than 20 percent of children 6–23 months are fed a minimum acceptable diet (adequate meal frequency and dietary diversity).[35] Renewed attention is needed to both these components of infant and young child feeding.

3. Prevention and Management of Wasting in Children under 5 Years

Since 2015, there has been too little progress in reducing the global proportion of children affected by wasting, and coverage of interventions to both prevent and treat the condition remains unacceptably low given the high case-fatality rate and long-term damage.[36] In 2020, a Global Action Plan on Child Wasting was proposed to mobilize all stakeholders around a framework for accelerating progress in preventing and managing child wasting.[37] As a key stakeholder in this effort, the U.S. government intends to support the plan, which recognizes the problem is not limited to humanitarian emergencies, requires systematic attention to food security and social protection, and calls for the prioritization of both prevention and treatment of wasting as an essential health service.

4. Micronutrient Sufficiency

Monotonous diets comprised predominantly of staple crops deprive people of all ages of the quality proteins, vitamins, and minerals they need for optimal health and well-being. This deprivation prevents the fetus, infant, and child from realizing their full physical and cognitive potential. While current data are

32 Bhutta 2013

33 While ensuring safe preparation, use, and storage of expressed human milk or breast milk substitutes when breastfeeding is not possible.

34 Labbok, M. H. 2001. "Effects of Breastfeeding on the Mother." *Pediatric Clinics of North America,* 48(1): 143–158. doi.org/10.1016/s0031-3955(05)70290-x

35 WHO, UNICEF, USAID, AED, UC Davis, IFPRI. 2008. "Indicators for Assessing Infant and Young Child Feeding Practices: Part 1 Definitions." Conclusions of a consensus meeting held 6–8 November 2007 in Washington, DC.

36 Bhutta, Z.A., J.A Berkley, R.H.J. Bandsma, M. Kerac, I. Trehan, A. Briend. 2017. "Severe Childhood Malnutrition." *Nature Reviews Disease Primers,* 3(1):17067. doi.org/10.1038/nrdp.2017.67

37 FAO, UNCHR, UNCEF, WFP, WHO. 2020. "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." Accessed November 16, 2021. https://www.who.int/publications/m/item/global-action-plan-on-child-wasting-a-framework-for-action

Box 2: School Feeding to Provide Nutrition Support to Children and Adolescents

Investing in the education of children and adolescents reaps significant returns for their lifelong success and for their children's nutritional status.[1] One important strategy for increasing enrollment, learning outcomes, and physical and psychosocial health is school feeding. This strategy provides incentives to parents to keep their children in school and nutritious meals to students to help them concentrate on learning. The benefits are particularly strong for girls.[2] Crucially, such social protection programs can prevent child marriage[3] and the cascade of negative health and nutrition consequences that follow.

Adolescents make up more than one-sixth of the world's population and will be critical agents of change for achieving the Sustainable Development Goals.[4] While there is evidence that micronutrient supplements can reduce anemia prevalence in adolescents, there is need for more research into which interventions—including through school-based platforms—have the greatest potential for improving their nutritional status and maximizing their ability to reach their full potential.[5] NIH, CDC, and USAID each support research efforts to this end.

USDA's Foreign Agricultural Service (FAS) has managed the McGovern-Dole International Food for Education and Child Nutrition Program since 2003. The program provides school meals, technical assistance to support teacher training and educational materials and curricula, vitamin supplementation and de-worming, and investments to improve school water and sanitation facilities. In 2021, the program was active in 26 countries around the globe.

1 Alderman, H, & Headey, DD. 2017. "How Important is Parental Education for Child Nutrition?" *World Development,* 94:448–464. doi.org/10.1016/j.worlddev.2017.02.007

2 World Food Programme. 2020. *State of School Feeding Worldwide 2020.* Rome: WFP.

3 Kalamar, A M., S.L. Rife, and M.J. Hindin. 2016."Interventions to Prevent Child Marriage Among Young People in Low- and Middle-Income Countries: A Systematic Review of the Published and Gray Literature." *Journal of Adolescent Health,* 59(3, Supplement), S16–S21. doi.org/10.1016/j.jadohealth.2016.06.015

4 Global Accelerated Action for the Health of Adolescents (AA-HA!) 2017. Guidance to Support Country Implementation. Geneva: World Health Organization.

5 Salam, R A. M. Hooda, J.K. Das, A. Arshad, Z.S. Lassi, P. Middleton,and Z.A. Bhutta. 2016. "Interventions to Improve Adolescent Nutrition: A Systematic Review and Meta-Analysis". *Journal of Adolescent Health,* 59(4S), S29–S39. doi.org/10.1016/j.jadohealth.2016.06.022

lacking, it is estimated that more than 2 billion people suffer from some form of micronutrient deficiency.[38] Micronutrient deficiencies can affect those who consume low-nutrient, monotonous diets, as well as those high in sugar, fat, salt, and highly processed substances and low in whole foods. Poverty, the high cost of nutritious foods, misaligned food systems, and inappropriate policies are key drivers of both aspects of the problem and contribute to unsustainable pressures on planetary resources.

On the other hand, diets that best nourish human health also support planetary health, and these can be pursued in a synergistic way.[39] School feeding programs can fill nutrient gaps among school-age children and adolescents and support learning (see **box 2**). Solutions will require concerted global efforts that will benefit from U.S. government technical and programmatic expertise.

38 International Food Policy Research Institute (IFPRI), Concern Worldwide, Welthungerhilfe. 2014. *Global Hunger Index: The Challenge of Hidden Hunger.* Bonn/Washington, D.C./Dublin: Welthungerhilfe/IFPRI/Concern Worldwide.

39 Swinburn, B. A., V.I. Kraak, S. Allender, V.J. Atkins, P.I. Baker, J.R. Bogard, H. Brinsden, et. al. 2019. "The Global Syndemic of Obesity, Undernutrition, and Climate Change: The Lancet Commission report." *The Lancet,* 393(10173): 791–846.doi.org/10.1016/S0140-6736(18)32822-8

5. Issues of Special Emphasis

A number of other issues also need to be recognized (including the COVID-19 pandemic and other health emergencies, nutrition during middle childhood and adolescence, overweight/obesity, diet-related non-communicable diseases, environmental health, and the impact of the climate crisis on food and nutrition security). The most immediate risk to protecting and advancing global nutrition is the COVID-19 pandemic, which threatens to undermine and potentially reverse progress made to date.[40] The crisis has also exposed deep structural injustices in food and health systems and the vulnerability of these systems to existential shocks, while also revealing strengths of the food system to build upon. The nutrition of children during middle childhood and adolescence (see **box 2** above) is also an important area to address. In addition, the issue of the growing prevalence of overweight and obesity among children, adolescents, and adults continues to rise across the globe—in some areas at an accelerating rate[41]—and requires determined action. The U.S. government will have to be ready to respond to the current and other anticipated and unexpected challenges, which will require marshalling the considerable resources available from its many experts, programs, and research capabilities.

6. Nutrition-relevant Policies and Opportunities

This cross-cutting priority encompasses nutrition-relevant policies and opportunities for high-level engagement. Solving malnutrition will require contributions from all nations and leadership to advocate for shared vision and perseverance in the face of challenges and setbacks. The U.S. government continues to provide a strong voice on the fundamental importance of nutrition for global development. It has often been at the forefront of championing new approaches with the global community, spanning from vitamin A supplementation to Essential Nutrition Actions, food fortification, nutritional surveillance, and multi-sectoral nutrition strategies. It has also provided models for national dietary guidelines, social protection programs, food safety, and food labeling, and has funded ground-breaking research, such as those spurring advances in agriculture from crop development to marketing.

Action Areas

The shared purpose of nutrition programs across the U.S. government is to improve nutrition to enhance health, productivity, and human potential. To maximize the impact of its global actions supporting nutrition program and policy priorities, agencies and departments will coordinate and collaborate across the **three action areas** below.

1. Promoting Leadership and Partnership

At the global level, the U.S government leads and supports nutrition efforts and partnerships; contributes to the development of the human capacity, nutrition policies, and guidelines that increase the prioritization of nutrition; and engages directly with other governments to promote action on nutrition. Within

40 Headey, D. R. Heidkamp, S. Osendarp, M. Ruel, N. Scott, R. Black, M. Shekar, et. al. 2020. "Impacts of COVID-19 on Childhood Malnutrition and Nutrition-related Mortality." *The Lancet,* 396(10250), 519–521. doi.org/10.1016/S0140-6736(20)31647-0

41 NCD Risk Factor Collaboration. 2017. "Worldwide Trends in Body-mass Index, Underweight, Overweight, and Obesity from 1975 to 2016: A Pooled Analysis of 2416 Population-based Measurement Studies in 128·9 Million Children, Adolescents, and Adults." *The Lancet,* 390(10113), 2627–2642. doi.org/10.1016/S0140-6736(17)32129-3

the U.S. government, stronger relationships and transparent communication around global nutrition activities increase the effectiveness and impact of these efforts. This may involve outreach and engagement with key public and private sector stakeholders, including health, food, academic, and professional organizations, and industry. Likewise, coordination among those U.S. government agencies and departments that are working at the country level will increase their collective impact.

Integral to these efforts is the U.S. government's active participation in the SUN Movement, a platform for uniting governments, civil society, the United Nations, regional organizations, donors, businesses, and researchers in a collective, multi-sectoral effort to improve nutrition in the countries with the highest burden of malnutrition. The U.S. plays an active leadership role in SUN at both the global and country levels, including as a donor convener in many SUN countries, and collaborating to build the capacity of local institutions to support at-scale implementation of evidence-based interventions.

2. Supporting Regional and Country-led Efforts

U.S. government policy is to support country- and community-led policies, strategies, and activities, enabling countries to accomplish their own nutrition goals. This requires adapting each solution to the local context. U.S. government agencies partner with foreign governments, civil society organizations, private sector actors, researchers and universities, and other stakeholders to leverage resources and promote coordinated actions. In some cases, this may entail strengthening civil society organizations' capacity to contribute to advancing nutrition goals.

Building technical expertise and institutional capacity within countries is fundamental to making sustained global progress towards ending malnutrition. This includes providing technical support to national governments to—

- strengthen subnational nutrition governance and financing
- reinforce the knowledge and skills of the nutrition workforce
- develop the infrastructure to ensure that all relevant systems are resilient and sustainable
- contribute to sound policies and operational strategies, always fostering local ownership and sustainability.

It also involves providing financial, human, and in-kind resources to government, civil society, and private sector partners for initiatives that advance nutrition objectives, including the strengthening of food production and trade.

3. Generating, Sharing, and Applying Knowledge and Data

U.S. government agencies work to ensure that the public policy recommendations and nutrition programming initiated or strengthened as a result of coordination that occurred under the Plan are evidence-based, using high-quality scientific data derived openly and objectively. U.S. government agencies have research capacity and resources across the spectrum of nutrition and nutrition-related topics. This wealth of expertise, as well as best practices and lessons learned, will be shared with multiple partners under the Plan, including private sector and civil society, as appropriate. U.S. government departments and agencies will

promote, develop, and share best practices in monitoring, evaluation, and learning to inform the design and effective delivery of nutrition interventions. By sharing research findings, aligning research activities, and identifying knowledge gaps across the agencies, enhanced coordination will strengthen the impact of this, as well as future research. This may also involve promoting and coordinating surveillance systems and national nutrition surveys to provide the data needed to guide policy formulation and program development. Participating agencies also intend to share findings on technology and innovation that contribute to shared goals.

SECTION 3: NUTRITION ROLES AND ACTIVITIES ACROSS THE U.S. GOVERNMENT

The U.S. government implements a tremendous breadth and depth of activities relevant to nutrition, both at home and abroad. Investing in nutrition—in all its forms—contributes to improved health, education, and economic growth.

Appendix A provides a detailed description of the U.S. government agencies and departments currently participating in this second Coordination Plan, including their primary mandates and roles in global nutrition. For example, USAID's nutrition investments, with its mandate in global development, is guided by the *USAID Multi-Sectoral Nutrition Strategy* (2014–2025), addressing both direct and underlying causes of malnutrition and linking humanitarian response with development programming.[42] Other agencies and departments, such as the U.S. Department of Agriculture, whose mandate largely focuses on the U.S. population, also generate evidence and tools relevant to support global nutrition (see **box 3**).

42 U.S. Agency for International Development (USAID). 2014. *Multi-sectoral Nutrition Strategy 2014–2025.* Washington, D.C.: USAID.

Box 3: USDA Food and Nutrition Service Special Supplemental Program for Women, Infants, and Children (WIC)

U.S. government interagency coordination and collaboration that occurs under the Plan applies lessons learned from USDA's domestic WIC program to other U.S. government global nutrition efforts. The WIC Program aims to safeguard the health of low-income women, infants, and children up to age 5 who are at nutritional risk by providing nutritious foods to supplement diets, information on healthy eating, and referrals to health care. Originally authorized in 1972, the program has evolved over decades of experience and changing needs. In 2019, WIC served 43 percent of all infants born in the United States, providing nutrition counseling through a wide range of settings, from hospitals to mobile clinics. Electronic Benefit Transfer is currently used by over 91 percent of WIC participants for supplemental foods and benefits can be redeemed at approximately 39,000 authorized retailers. A Congressional cost-benefit analysis[1] of the WIC program estimated that each federal dollar invested in WIC benefits returns an estimated $3,502 over 18 years in discounted present value, and $2.89 within the infants' first year to federal, state, and local governments and to private payers.

Due to Plan collaboration and information sharing, other U.S. government agencies have used WIC's cost benefit analysis to advocate for global investments in nutrition, and WIC's counseling materials to inform the development of similar materials for use in global settings.

1 United States General Accounting Office (GAO). 1992, April. *Report to Congressional Requesters. Early Intervention Federal Investments Like WIC Can Produce Savings.* Publication no. GAO/HRC-92-18, Washington, D.C: GAO.

Departments and agencies that currently engage in or implement activities related to international nutrition (as shown in **Appendix A**) include, but are not limited to, the following:

- Millennium Challenge Corporation
- Peace Corps
- U.S. Agency for International Development (USAID)
- U.S. Department of Agriculture
  - Agricultural Marketing Service (AMS)
  - Agricultural Research Service (ARS)
  - Economic Research Service (ERS)
  - Food and Nutrition Service (FNS) and its Center for Nutrition Policy and Promotion (CNPP)
  - Food Safety and Inspection Service (FSIS)
  - Foreign Agricultural Service (FAS)
  - National Institute of Food and Agriculture (NIFA)
  - Office of the Chief Scientist (OCS)
- U.S. Department of Health and Human Services (HHS)
  - Centers for Disease Control and Prevention (CDC)
  - Food and Drug Administration (FDA)
  - National Institutes of Health (NIH)
  - Office of Global Affairs (OGA)
- U.S. Department of State
  - Office of Global Food Security (S/GFS)
  - Office of the U.S. AIDS Coordinator and Health Diplomacy (S/GAC)
  - Office of International Health and Biodefense (OES/IHB)
- U.S. International Development Finance Corporation (DFC)

In seeking to coordinate the contributions of experts from across the U.S. government, the Global Nutrition Coordination Plan will draw on the experience of a number of successful whole-of-government initiatives, such as the President's Malaria Initiative (PMI), the Advancing Protection and Care for Children in Adversity Strategy, and the President's Emergency Plan for AIDS Relief (PEPFAR). One of the most significant of these efforts is Feed the Future, detailed in **box 4**. Codified into law by the Global Food Security Act of 2016, the Feed the Future initiative is now guided by the U.S. Government Global Food Security Strategy 2022–2026.

Box 4: U.S. Government Global Food Security Strategy—Feed the Future

This whole-of-government effort draws on the agricultural, trade, investment, development, and policy resources and expertise of multiple U.S. federal departments and agencies to promote the sustainable, long-term change needed to end chronic hunger and poverty.

USAID leads the interagency coordination and field implementation, managing an array of agricultural, nutrition and resilience projects, leveraging private sector and research partners, and guiding rigorous monitoring, evaluation, and learning.

USDA supports capacity building, food assistance, research, and the promotion of science-based solutions to expand markets and trade.

The **State Department** promotes global, regional, national, and sub-national policies that foster sustainable reductions in hunger and malnutrition.

Peace Corps sends volunteers to support Feed the Future activities and build local capacity for sustainable agricultural development, better nutrition, and stronger resilience.

MCC enables countries to implement market-driven solutions to poverty, food insecurity, and malnutrition.

The **Treasury Department** oversees funding for agricultural activities through multilateral development banks.

DFC has invested more than $500 million in projects that support food security, irrigation, and smallholder farmers. The new Global Nutrition Alliance aims to mobilize $100 million in private sector investments to reduce malnutrition in partnership with the Eleanor Crook Foundation.

The **U.S. Geological Survey** provides scientific and technical expertise to support the use of products that use remote sensing and seasonal forecasting for crop production and emergency preparedness, response, and recovery.

The **U.S. Trade Representative** advances trade and investment policies to reduce barriers to efficient markets in alignment with the World Trade Organization.

The **U.S. African Development Foundation,** an independent agency established by Congress, provides seed capital and technical assistance directly to small- and medium-sized agricultural enterprises to improve productivity and incomes.

SECTION 4: U.S. GOVERNMENT COLLABORATION FOR ENHANCED GLOBAL IMPACT

This second Global Nutrition Coordination Plan intends to focus on five nutrition program priorities and a sixth cross-cutting priority promoting nutrition-relevant policies and global engagement. As noted, these priorities do not cover the entire spectrum of global nutrition challenges, but rather focus where U.S. government coordination can make the most significant impact on the most difficult problems and advance progress towards achieving the World Health Assembly targets. Moreover, these priorities are not mutually exclusive, and many of the issues of special emphasis are likely to have an impact across a number of the priorities.

This section specifically reviews each of the six nutrition priorities identified in the Plan by the three action areas identified in Section 2. To showcase some examples of the current U.S. government footprint in each nutrition area, information is presented in tabular format that describes U.S. government agencies and departments that are contributing under each theme, either working alone or jointly with other agencies and departments. Although in many instances coordination is already taking place, it is expected that joint efforts across agencies and departments will identify opportunities for enhancing their cooperation during this second iteration of the Plan through activities under the technical working group and its sub-working groups.

1. Women's Nutrition Before and During Pregnancy and Lactation

The U.S. government recognizes that optimal nutrition during the first 1,000 days of life, beginning with pregnancy, is fundamental to lifelong health. It is estimated that as much as one-fifth of child stunting, or the failure to reach full height potential, and an equal proportion of wasting, or low weight-for-length, is due to inadequate nutrition in utero.[43,44] Being underweight, overweight, or anemic all increase a woman's risk for adverse outcomes in childbirth, and put the newborn at risk, as well. Women's access to good nutrition must be assured across the lifecycle, not simply during pregnancy and breastfeeding. USAID works with public, private, and faith-based providers to improve women's access to nutrition, including access to quality antenatal care that includes micronutrient supplements, deworming and malaria control, and counseling

43 Black, R.E., et al., 2013. "Maternal and Child Undernutrition and Overweight in Low-income and Middle-income Countries." *The Lancet,* 382(9890): 427–451. doi.org/10.1016/S0140-6736(13)60937-X

44 Wasting-Stunting Technical Interest Group. 2018. "Child Wasting and Stunting: Time to Overcome the Separation." Emergency Nutrition Network. Accessed November 16, 2021. https://www.ennonline.net/resources/timetoovercometheseparation.

on consuming diverse, nutrient-rich diets. It works to strengthen data collection and analysis, policy development, and national financing to understand and solve nutrition challenges. These efforts are complemented by the applied and basic research endeavors of NIH and CDC, as well as direct technical assistance to countries. For example, NIH's Global Network for Women's and Children's Health Research[45] enables foreign and U.S. investigators to collaborate on clinical trials with the goal of evaluating low-cost, sustainable interventions to improve maternal and child health while simultaneously building local research capacity and infrastructure.

The U.S. government's Global Food Security Strategy, also known as Feed the Future initiative, (see **box 4** above) increases women's access to agricultural inputs to build robust livelihoods and to produce nutritious and safe foods for household consumption. It works to raise awareness of how the disproportionate work burden that falls on women can sap their health. The initiative draws on the agricultural expertise of USDA, the scientific and technical expertise on the health of ecosystems and environment from the U.S. Geological Survey, the private investments leveraged by DFC and Millennium Challenge Corporation (MCC), technical and policy support from USAID and the State Department, and grassroots mobilization by the Peace Corps.

A commitment to translate evidence into improved delivery strategies that assure women access critical nutrition and health services and consume all the nutrients required for safe and healthy pregnancies, lactation, and for lifelong health and well-being complements the U.S. government's robust research agenda. This includes both promoting the adoption of behaviors like handwashing and vaccination known to protect health and nutritional status, and expanding understanding of drivers of individual food preferences and the biological factors that affect the body's ability to absorb essential nutrients.

45 For more information on this multidisciplinary partnership, see: https://www.nichd.nih.gov/research/supported/globalnetwork#topic

Table 2: Women's Nutrition

Action Area	Examples of Activities	U.S. Government Agencies/ Departments Currently Working in This Area
Promote leadership and partnership	1. Mobilize private sector investments in enterprises that will improve global food supply and public health systems through initiatives such as the Global Nutrition Financing Alliance and the Health and Prosperity Initiative.	DFC, USAID, MCC, State
	2. Build the capacity of local community-based organizations to train community health workers and health facility staff to promote nutrition practices that contribute to a healthy pregnancy and the reduction of anemia.	Peace Corps, USAID
	3. Advance initiatives aimed at elevating the role of women in agriculture and achieving positive nutritional outcomes for women within bilateral and multilateral partnerships.	State, USAID, MCC, HHS/ OGA
	4. Promote collaborations across the public and private sector and civil society via leadership in such entities as the Micronutrient Forum and the American Society for Nutrition.	NIH, USAID, CDC, FDA
Support country and region-led efforts	5. Support programming, technical assistance, and scientific research on micronutrient supplementation; food fortification; quality antenatal care with nutrition assessment, counseling, and support; and effective promotion of diverse, nutrient-rich diets throughout the lifecycle.	USAID, CDC, FDA, NIH/ NICHD, Peace Corps
	6. Support women farmers to increase access to land and water rights, new technologies, and cultivation techniques to increase crop yields and increase access to nutrient-rich foods.	USAID, USDA, Peace Corps
Generate, share, and apply knowledge and evidence	7. Engage in working groups bringing together multiple agencies to address specific aspects of women's health through the recently formed COVID-19 Infant Feeding Working Group and Research Interest Group.	NIH/NICHD, FDA, CDC, USAID
	8. Support research in collaboration with United Nations Children's Fund (UNICEF), World Health Organization (WHO), and governments on women and children's health and nutrition as well as basic and translational biomedical research.	NIH, USAID, CDC, FDA
	9. Improve nutrition data availability and quality in countries by supporting monitoring, evaluation, and surveillance through existing and newly developed systems.	USAID, CDC

2. Breastfeeding and Complementary Feeding (0–24 months)

Also crucial during the first 1,000 days is assuring that infants and young children receive optimal breastfeeding and complementary foods. They must be protected from consuming insufficient calories or nutrients to meet their elevated needs, and from over consumption of foods high in added sugars, refined carbohydrates, saturated fats, and sodium, and beverages high in added sugars. They also must be protected from the inappropriate promotion of breastmilk substitutes. Strategies to this end include—

- counseling and support to new mothers to enable them to breastfeed successfully
- developing and promulgating policies on appropriate food marketing and promotion
- capacity building for health care providers
- strengthening agricultural and commercial production of safe and nutritious foods
- promoting social norms and behaviors that encourage and facilitate breastfeeding and behavior change
- strengthening health systems to implement the Baby-Friendly Hospital Initiative's Ten Steps to Successful Breastfeeding[46]
- the conduct of basic and applied research.

The U.S. government contributes to all of these important strategies as detailed below.

Myriad factors interact to influence infant and young child feeding practices, including economic resources, biology, behavior, environment, and culture. Assuring all children consume the optimal diet to support their physical growth and cognitive development requires understanding and navigating these many influences. While committed to collaborate globally to support the effective delivery and scale-up of the many existing evidence-based interventions, the U.S. government will also continue to fill the gaps in knowledge and evidence needed to protect children from preventable malnutrition, and support families to practice optimal infant and young child feeding.

46 See glossary entry for Baby-Friendly Hospital Initiative

Table 3: Breastfeeding and Complementary Feeding

Action Area	Examples of Activities	U.S. Government Agencies/ Departments Currently Working in This Area
Promote leadership and partnership	1. Participate in the Scaling Up Nutrition movement at global and country levels.	USAID, State, MCC
	2. Support and participate in the Global Breastfeeding Collective and COVID-19 Infant Feeding Working Group to advance evidence base and protect and support breastfeeding.	NIH, USAID, CDC
	3. Participate in Codex Alimentarius to establish international standards for food development and marketing that protects the health of infants and young children.	USDA, FDA, USAID
	4. Mobilize private sector investments in enterprises that will improve global food supply and public health systems.	DFC, USAID, MCC, State
Support country and region-led efforts	5. Develop and realize multi-sectoral and multichannel strategies to support and encourage families to embrace exclusive and continued breastfeeding; increase availability, access, desirability, and consumption of nutrient-rich foods, including fortified foods; and strengthen nutrition care within health services and monitoring, evaluation, surveillance of breastfeeding and complementary feeding.	USAID, Peace Corps, MCC, CDC
	6. Promote regional and in-country research efforts as well as extramural training, research, and career development grants and multi-country research networks.	NIH, CDC, USAID
	7. Support and promote national roll-out of the revised Baby-Friendly Hospital Initiative implementation guidelines, improve access to skilled breastfeeding counseling, and strengthen links between health facilities and communities to support families.	USAID, CDC
Generate, share, and apply knowledge and evidence	8. Spearhead the interagency Pregnancy/Birth to 24 months and preterm infant research projects to inform guidelines on safe and efficacious infant feeding practices, as well as research to deeper understanding of the biology of human milk to better support breastfeeding families.	NIH, USAID, FDA, USDA, CDC
	9. Provide funding to scientists and laboratories at universities, hospitals, and research institutions nationwide and around the world for research projects to expand the evidence base on the role of nutrition in enhancing health across the lifespan.	NIH, USAID, USDA
	10. Celebrate World Breastfeeding Week and National Breastfeeding Month as a valuable means to promote breastfeeding and share current research and programming evidence	USAID, CDC, USDA

3. Prevention and Management of Wasting in Children under 5 Years

In 2007, WHO, UNICEF, the World Food Programme (WFP), and the United Nations Standing Committee on Nutrition issued a joint statement endorsing the community-based management of severe acute malnutrition using ready-to-use therapeutic food (RUTF) for treatment. In 2013, following a global stakeholder consultation, WHO published a protocol for this approach: "Updates on the Management of Severe Acute Malnutrition in Infants and Children." This approach has been adopted by over 70 countries.[47] Where implemented, it is extremely effective, curing approximately 80 percent of children who complete treatment,[48] yet in 2018, fewer than one in three children with severe acute malnutrition received treatment.[49] There has been less evidence and consensus on the treatment protocol for moderate acute malnutrition, and frequently separate programs, rather than a continuum of care, treat severe and moderate acute malnutrition. Evidence is accumulating for the effectiveness of simplified protocols to treat both types of acute malnutrition[50] as well as for shifting more responsibility for treatment to community health workers and their families rather than requiring families to report to health facilities.[51,52] These changes could facilitate coverage, but more urgent attention must also be devoted to strengthening health systems so they enact enabling policies, allocate adequate resources, develop functioning logistics systems, motivate health workers, and collect and utilize accurate program delivery data. To this end, FDA and USAID collaborate with UNICEF to develop a global guideline for the manufacture of RUTF, now being formalized through Codex, to enable expanded local production and therefore access to treatment.

On the demand size, households need convenient and reliable access to services and the awareness and motivation to use these services. A suite of preventive strategies is also necessary. And while much is known about effective treatment for severe acute malnutrition, more research can inform effective simplified treatment protocols, cost-effective treatments for moderate acute malnutrition, alternative products that could be produced locally to reduce costly transportation and delivery logistics, and mitigation measures for biological and environmental risk factors that increase its severity and barriers to recovery. While NIH leads efforts in research; USAID and State advocate for supportive policies; and USAID, Peace Corps, and MCC support health systems to deliver treatment services at scale.

47 FAO, UNCHR, UNICEF, WFP, WHO. 2020

48 Shekar, M., et. al. 2017.

49 See NutriDash: https://acutemalnutrition.org/en/countries

50 Bailey, J., et. al. 2020. "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(7): e1003192. https://doi.org/10.1371/journal.pmed.1003192

51 Van Boetzelaer, E., A. Zhou, C. Tesfai, N. Kozuki 2019. "Performance of Low-literate Community Health Workers Treating Severe Acute Malnutrition in South Sudan." *Maternal & Child Nutrition*. 15(S1): e12716. https://doi.org/10.1111/mcn.12716

52 Alvarez Morán, J.L., G. B. Franck Alé, P. Charle, N. Sessions, S. Doumbia & S. Guerrero. 2018. "The Effectiveness of Treatment for Severe Acute Malnutrition (SAM) Delivered by Community Health Workers Compared to a Traditional Facility Based Model." *BMC Health Services Research*. 18(1): 207. https://doi.org/10.1186/s12913-018-2987-z

Table 4: Prevention and Management of Wasting

Action Area	Examples of Activities	U.S. Government Agencies/ Departments Currently Working in This Area
Promote leadership and partnership	1. Engage with multilateral, government, and civil society partners to implement programs globally to strengthen strategic approaches across humanitarian assistance, health, and food security programming to address wasting across the prevention-treatment continuum of care, including contributing to the U.N. Global Action Plan on Child Wasting.	State, USAID, MCC, USDA, CDC, HHS/OGA
Support country and region-led efforts	2. Encourage governments to integrate wasting management strategies into national health systems, link wasting management services with other relevant programs, and protect infant and young child feeding during emergencies.	USAID, MCC, State, CDC
	3. Strengthen social support, early warning, and resilience capacities at the household, community, and national levels to enable coping with and recovery from shocks to nutrition and food security.	USAID, USDA
	4. Provide technical assistance and training for prevention and treatment at the clinic and community level.	USAID, Peace Corps
Generate, share, and apply knowledge and evidence	5. Strengthen the evidence on the coverage and effectiveness of nutrition services within community health platforms, including service delivery packages, growth monitoring and promotion, wasting prevention, and treatment interventions.	USAID, CDC
	6. Support and promote research to better understand the interaction of nutrition and disease and its impact on child physical and neurological growth.	NIH

4. Micronutrient Sufficiency

The U.S. has long provided leadership for large scale fortification, biofortification, and point-of-use (home) fortification, and supplementation strategies to combat micronutrient deficiencies; for example, supporting the research that identified the protective impact of vitamin A supplementation on child survival and then the scale-up of mass vitamin A supplementation, promoting iron-folic acid supplementation of pregnant and lactating women, and championing industrial food fortification in 34 low- and middle-income countries.[53] Continuing support for the expansion of agricultural value chains and the viability of small and medium enterprises contributes to the

53 Anderson, M.A., et. al. 2019. *Nourishing Lives and Building the Future: The History of Nutrition at USAID.* Washington, D.C.: U.S. Agency for International Development.

development of more micronutrient-dense food systems.

CDC's International Micronutrient Malnutrition Prevention and Control (IMMPaCt) program works collaboratively with partners to achieve optimal health among vulnerable populations by improving nutrition globally, with a focus on micronutrients for women of child-bearing age, infants, children, and adolescents (see example in **box 5**).

The U.S. has also contributed to research to identify simpler, lower-cost, and more reliable technologies for assessing micronutrient status to better define the prevalence and severity of deficiencies and where to target the appropriate interventions. Interagency collaboration has supported nutrition surveys and surveillance efforts across the globe. CDC works with NIH, USAID, WHO, UNICEF, other partners, and technical advisory groups to update and create global guidance on micronutrient interventions, micronutrient status assessment,

Box 5. USAID-CDC Collaboration through IMMPaCt

CDC's International Micronutrient Malnutrition Prevention and Control Team provides technical assistance to other U.S. government agencies, multilateral partners including WHO and UNICEF, and government partners. Supporting 8 to 10 country projects at a time, the program is currently enabling the provision of iron-folic acid supplements to adolescents in Bangladesh and Ghana, the implementation of an integrated infant and young child feeding and micronutrient powder program in Nepal, and national micronutrient surveys and surveillance systems in seven countries.

USAID has also invested extensively in multiple micronutrient strategies in low- and middle-income countries, and, in collaboration with IMMPaCt, has supported the design, implementation, and testing of permanent nutrition surveillance systems to monitor the performance and effectiveness of these interventions. Starting in 2001, CDC, USAID, and other partners collaborated to provide technical assistance to the Government of Nicaragua to develop a model of such a system, the Integrated Surveillance System of Nutrition Interventions (known by the acronym SIVIN). The experience of the National Health and Nutrition Examination Survey of the United States informed development. The results were very positive, and brought attention to, local ownership of, and accountability for nutritional interventions. In 2011, the initiative was expanded to Guatemala as the Epidemiological Health and Nutrition Surveillance System.

In 2017, the partnership linked with other developmental partners to support the governments of countries in East, Central, and Southern Africa to organize a regional workshop on best practices in industrial food fortification monitoring, and to enable Uganda to add a nutrition surveillance module to the 2018 National Panel Survey. Further examples of CDC and USAID collaboration include the addition of micronutrient modules to the DHS in Malawi (2015/16), Rwanda (2019), and Tanzania (2021), and the organization of national micronutrient surveys in Nepal (2019) and Burkina Faso (2020).

monitoring, evaluation, and surveillance. This includes the Global Alliance for Vitamin A, which is a forum to share information and lessons learned and coordinate policy related to vitamin A supplementation in the context of other vitamin A deficiency control and child survival programs.

The CDC joined forces with the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NIH/NICHD) and the Global Alliance for Improved Nutrition on a research project known as Biomarkers Reflecting Inflammation and Nutrition Determinants of Anemia (BRINDA), building on previous work to deepen understanding of the nutritional and non-nutritional causes of anemia and tools for measuring their prevalence.

CDC, USAID, and USDA are partners of the global Food Fortification Initiative, a public, private, and civic society collaboration supporting the scale-up of industrial fortification of wheat flour, maize flour, and rice. CDC is a member of the Home Fortification Technical Advisory Group, which works to expand home fortification with multiple micronutrient powders, small-quantity lipid-based nutrient supplements, and fortified full-fat soy flour for women and young children. USAID supports food aid quality efforts to advance actionable approaches to improve the impact of specially-formulated food commodities on the nutritional status of vulnerable populations. USDA provides nutritious U.S. agricultural products, such as fortified rice, lentils, and corn-soy blend, to supply school feeding programs reaching children and adolescents while also working to build local capacity to implement these programs supporting child nutrition using local resources.

The Feed the Future initiative implements strategies to improve micronutrient sufficiency of vulnerable populations by increasing the production and consumption of nutritious and safe foods, improving livelihoods, promoting positive social and behavior change, and advancing gender equality and women's empowerment.

Table 5: Micronutrient Sufficiency

Action Area	Examples of Activities	U.S. Government Agencies/ Departments Currently Working in This Area
Promote leadership and partnership	1. Collaborate on the development of global guidelines for micronutrient policies, interventions, assessment research, translation, and convening around common agendas, including review led by WHO on the use of hemoglobin to assess anemia.	CDC, NIH, USAID
	2. Mobilize public-private partnerships as well as collaboration with civil society, donors, and impact investors to promote robust agriculture value chains, agro-processing and storage, link farmers to inputs and markets to expand supplies of nutrient-rich foods in low- and middle-income countries.	DFC, MCC, USDA, USAID

Action Area	Examples of Activities	U.S. Government Agencies/ Departments Currently Working in This Area
Support country and region-led efforts	3. Provide technical assistance to countries to design, implement, scale up and scale down effective micronutrient interventions and population-based assessments.	CDC, USAID, MCC
	4. Partner with Iodine Global Network to support the sustainable elimination of iodine deficiency globally.	CDC, USAID
	5. Contribute U.S. agricultural commodities and financial and technical assistance to support school feeding and maternal and child nutrition projects.	USDA, State
Generate, share, and apply knowledge and evidence	6. Contribute to global efforts to fill gaps in data on micronutrient status, including maintaining and updating the Micronutrient Survey Manual and Toolkit, supporting the WHO's Vitamin and Mineral Nutrition Information System, supporting the development of an optional micronutrient status assessment module as part of the Demographic and Health Surveys (DHS), and the Hemoglobin Measurement multi-institutional working group to improve the reliability and validity of hemoglobin measurement in population surveys.	NIH, CDC, USAID
	7. Participate in leadership of the Micronutrient Forum to catalyze and convene the global sharing of expertise, insights, and experience relevant to the role of micronutrients in health promotion and disease prevention, with special emphasis on the integration with relevant non-health sectors.	CDC, NIH, USDA, USAID
	8. Contribute to global efforts to update guidance on micronutrient biomarker assessment and interpretation and to strengthen surveillance for global estimates of micronutrient deficiencies.	CDC, USAID
	9. Advance efforts to deepen understanding of the biology of micronutrients, individually and in combination, within biological systems through research programs such as BRINDA.	NIH, CDC, USAID

5. Issues of Special Emphasis

Threats identified in the first Global Nutrition Coordination Plan included increases in the prevalence of overweight and obesity among children, adolescents, and adults, and the problem has continued to increase.[54] The dangers have come into stark relief with the COVID-19 pandemic and the elevated risk of mortality from the virus associated with obesity and related noncommunicable diseases. The global community will also have to act decisively to minimize the impact of the pandemic and its economic fallout on the nutrition of the world's most vulnerable.

The first Global Nutrition Coordination Plan also recognized the climate crisis as a threat to the realization of global nutrition goals, noting the accumulating evidence of negative impacts on the nutrient content of crops, food safety, birth weight, consumption of fresh produce, and climactic and political stability. The recommendations of that Plan remain relevant and urgent: support the collection, analysis and dissemination of sound climate data and science; deepen understanding of the impacts of increased CO_2 concentrations on water, food, and nutrient supplies; and conduct research on and implementation of strategies to reduce the carbon footprint of food production. It is increasingly clear that pollinators[55] and soil biodiversity[56] contribute crucially to the production of nutritious foods, and must be protected from human encroachment on natural systems and unsustainable development. In addition, nutrition for school age children and adolescents is another window of opportunity in the lifecycle for promoting improved growth and development and increasing scholastic performance and completion, all critical inputs to long-term progress. Program delivery, global partnership, and knowledge generation will all be crucial to address these and yet unforeseen challenges.

54 NCD Risk Factor Collaboration 2017

55 Chaplin-Kramer, R., E. Dombeck, J. Gerber, K.A. Knuth, N.D. Mueller, M. Mueller, G. Ziv, et al. 2014. "Global Malnutrition Overlaps with Pollinator-dependent Micronutrient Production." *Proceedings of the. Royal Society B*, 281(1794): 20141799. https://doi.org/10.1098/rspb.2014.1799

56 Food and Agricultural Organization (FAO), Intergovernmental Technical Panel on Soils (ITPS), Global Soil Biodiversity Initiative (GSBI), Secretariat of the Convention on Biological Diversity (CBD) and European Commission (EC). 2020. *State of Knowledge of Soil Biodiversity—Status, Challenges and Potentialities, Report 2020*. Rome: FAO.

Table 6: Issues of Special Emphasis

Action Area	Examples of Activities	U.S. Government Agencies/Departments Currently Working in This Area
Promote leadership and partnership	1. Raise awareness within the U.S. government and globally of the determinants of nutrition and food security and promising solutions and the crucial intersection of environmental change, agriculture and food systems, nutrition, and health.	State, USAID, NIH, MCC, USDA, DFC, Peace Corps, HHS/OGA
	2. Mobilize public-private partnerships in enterprises that increase climate resilience, including post-harvest storage, cold-chain solutions, and information technologies.	DFC, USAID, State, USDA, MCC
	3. Continue participation in the COVID-19 Infant Feeding Research Interest Group and its collaboration with the World Health Organization's Maternal, Newborn, Child, and Adolescent Health COVID-19 Research Network to mitigate the nutrition impacts of the pandemic.	NIH, CDC, USAID
Support country and region-led efforts	4. Identify and support COVID-19-related adaptations to protect essential nutrition interventions, food security, and economic development.	USAID, State, Peace Corps, CDC, USDA, MCC
	5. Promote policies and programs that support healthy lifestyles and contribute to the long-term reduction in noncommunicable diseases.	USAID, State, Peace Corps, CDC, FDA, USDA, MCC
Generate, share, and apply knowledge and evidence	6. Participate in discussions with WHO to set global targets and indicators on noncommunicable diseases and in defining international nutrient reference values.	FDA, USDA, USAID
	7. Serve as resource to support ongoing deliberations and evidence generation addressing such global challenges as the COVID-19 pandemic and the intersection of climate, food systems, health, and nutrition, as well as work with global partners to identify gaps and needs for new research and data.	NIH, CDC, USAID, USDA, State

6. Nutrition-relevant Policies and Opportunities for High-level Engagement

It is clear that 2021 will provide important opportunities for convening with global stakeholders and shining a spotlight on the importance of investing in nutrition. Modeling by nutrition experts suggests that without a resolute global response, the economic, health, and food system repercussions of the COVID-19 pandemic could result in an additional 13.6 million children becoming wasted, 3.6 million becoming stunted, and a cumulative cost in productivity losses from the resulting malnutrition of almost $30 billion by 2022 alone.[57] It is also anticipated that official development assistance will fall in response to economic crises in donor countries. On the other hand, the same analysis finds that allocating an additional $1.2 billion annually towards seven evidence-based nutrition interventions could significantly mitigate the damage. Opportunities in 2021 for mobilizing the needed global response include the U.N. Food Systems Summit and the Nutrition for Growth Summit. The U.S. government can be a champion for bold, generous, and highly cost-effective action.

The United States has played a proud role since the founding in 1944 of the International Bank for Reconstruction and Development and the enactment in 1948 of the Marshall Plan in advancing global efforts to promote equitable development and improve public health. Global partnerships are more important than ever to continue and accelerate progress in nutrition and sustainable development. The U.S. government intends to remain a constructive partner, promoting a coordinated global effort to get control of the coronavirus pandemic as well as actions and investments in nutrition and climate protection, and upholding the long tradition of international exchanges and fellowships focused on solving global challenges in nutrition and beyond.

57 Osendarp S, J. Akuoku, R. Black, D. Headey, M. Ruel, N. Scott, M. Shekar, et al. 2020. "The Potential Impacts of the COVID-19 Crisis on Maternal and Child Undernutrition in Low- and Middle Income Countries." *Nature*. https://doi.org/10.21203/rs.3.rs-123716/v1 Pre-print.

Table 7: Nutrition-Relevant Policies and Opportunities for High-level Engagement

Action Area	Examples of Activities	U.S. Government Agencies/ Departments Currently Working in This Area
Promote leadership and partnership	1. Champion nutrition in high-level dialogues within the African Union, the African Green Revolution Forum, the Asia-Pacific Economic Cooperation, the Food Systems Summit, Nutrition for Growth, the Group of Seven (G7), the G20, the World Health Assembly, the Committee on Food Security, the PROBLUE trust fund, and the United Nations (UN) General Assembly.	State, USAID, USDA, FDA, HHS/OGA
	2. Participate in the Nutrition for Growth Advisory Group and encourage partners to make generous nutrition commitments during the year of action.	State, USAID
	3. Strengthen partner capacity to ensure the global food supply is wholesome and nutritious through training in Good Agricultural Practices, Hazard Analysis Critical Control Points, and Good Manufacturing Practices.	USDA, FDA, USAID
	4. Engage with the SUN Movement 3.0, the SUN Donor Network, and the United Nations Food Systems Summit to advance bold new actions on nutrition to deliver progress on all 17 Sustainable Development Goals.	State, USAID
	5. Leverage all financing instruments to increase private investments in nutrition-sensitive investments in low- and middle- income countries. [DFC]	DFC, MCC, USAID, USDA
	6. Work collaboratively with governments, donors, and civil society to identify health system strengthening solutions to improve countries' ability to deliver improved nutrition and reduced disease burden.	MCC, USAID, State, CDC, HHS/OGA
	7. Pursue USDA science priorities through the themes of food and nutrition translation (reduce foodborne illness, understand and overcome the drivers of poor diets and nutrition choices, minimize food waste) and ag science policy leadership (develop science-based international and domestic standards, regulatory approaches, and policies, including those guiding new and emerging technologies).	USDA, FDA, State
Support country and region-led efforts	8. Partner with local government, private sector, farmers, and supply chain actors to build private sector and government capacity to increase agricultural productivity and ensure a reliable and affordable supply of nutritious foods.	MCC, Peace Corps, USAID, DFC

Action Area	Examples of Activities	U.S. Government Agencies/ Departments Currently Working in This Area
	9. Strengthen data measurement and analysis to inform countries' nutrition priorities and policies and to prioritize nutrition in national policies, plans, budgets, and programs; and transition to sustainable financing for nutrition.	USAID, State, MCC, CDC
	10. Work with host governments to strengthen school feeding policies and strategies through the McGovern-Dole International Food for Education and Child Nutrition Program, the Global Child Nutrition Forum, with World Food Programme Executive Board.	USDA
	11. Work through Codex Alimentarius to establish international food standards that protect the health and nutrition of consumers and ensure fair trade practices.	USDA, FDA, USAID
	12. Support the African Union Summit in 2022 to "Build resilience in nutrition on the African continent: accelerate the human and social development."	State, USAID
Generate, share, and apply knowledge and evidence	13. Document learning and best practices from multi-sectoral nutrition policies, plans and programs.	USAID, USDA, MCC, DFC, CDC
	14. Promote extramural research and training in nutrition priority areas and play an active role in both the generation and translation of emerging science in support of evidence-based programs, policies, and standards of care.	NIH, FDA, USDA, CDC
	15. Provide open access to data collected on nutrition-specific interventions throughout the world, removing personal identifiers and making them machine readable.	MCC, USAID, State, USDA, USDA, DFC, HHS/OGA, NIH, FDA

SECTION 5: RESULTS, ACCOUNTABILITY, AND STRUCTURE

Twelve results have been identified to track the accomplishments of the U.S. government partners as a whole towards achieving the vision and purpose of the Plan 2021–2026, which strives to enhance collaboration across the identified nutrition priorities through funding mechanisms outside the Plan. This set of anticipated results is intended to promote accountability for efforts under the Plan and will serve as the basis for developing specific indicators that will be measured to track progress over the next five years. As not all U.S. agencies and departments participating in the Plan have the mandate to work in each of the six priority areas identified, results will be tracked in aggregate and not by any one specific agency or department.

Expected Results

The results have been organized along the three action areas guiding the Plan.

Under **Action Area 1, Promote Leadership and Partnership,** five results have been identified:

1.1 Through increased U.S. government leadership and improved partnership, global nutrition elevated as an essential issue across and within relevant agencies and departments.

1.2 Individual U.S. government agencies/departments supporting the Plan commit to formulating and achieving a specific nutrition objective over the next 5 years that contributes to the Plan.

1.3 U.S. government inter-agency/department efforts around nutrition program priorities carried out under the umbrella of the Plan with respect to program planning, implementation, research, and information sharing.

1.4 U.S. government inter-agency/department efforts around global nutrition-relevant policies and opportunities for high level engagement carried out under the umbrella of, or in collaboration with, the Plan.

1.5 U.S. government coordination and enhanced systems comprehensively track U.S. financial investments for global nutrition and report to global accountability platforms.

Under **Action Area 2, Regional and Country-Led Efforts,** results will focus on three areas:

2.1 Information sharing among U.S. government agencies/departments raises awareness and identifies potential country and regional opportunities for inter-agency collaboration on Coordination Plan priorities.

2.2 Mapping exercise of country efforts of U.S. government agencies/departments related to the Coordination Plan's nutrition priorities undertaken to foster coordination.

2.3 U.S. government support coordinated at the regional and country levels to advance objectives under Scaling Up Nutrition 3.0.

Under **Action Area 3, Generate, Share, and Apply Knowledge and Evidence**, four results are proposed:

3.1 Information generating and sharing strategy relevant to the Coordination Plan's nutrition program and policy priorities developed and implemented for both internal and external stakeholders.

3.2 Opportunities for applying knowledge and evidence generated under the Coordination Plan identified for both internal and external stakeholders.

3.3 Annual summaries on progress made under the Coordination Plan prepared and submitted.

3.4. Final summary on the Coordination Plan prepared and submitted at end of the five-year period.

Leadership

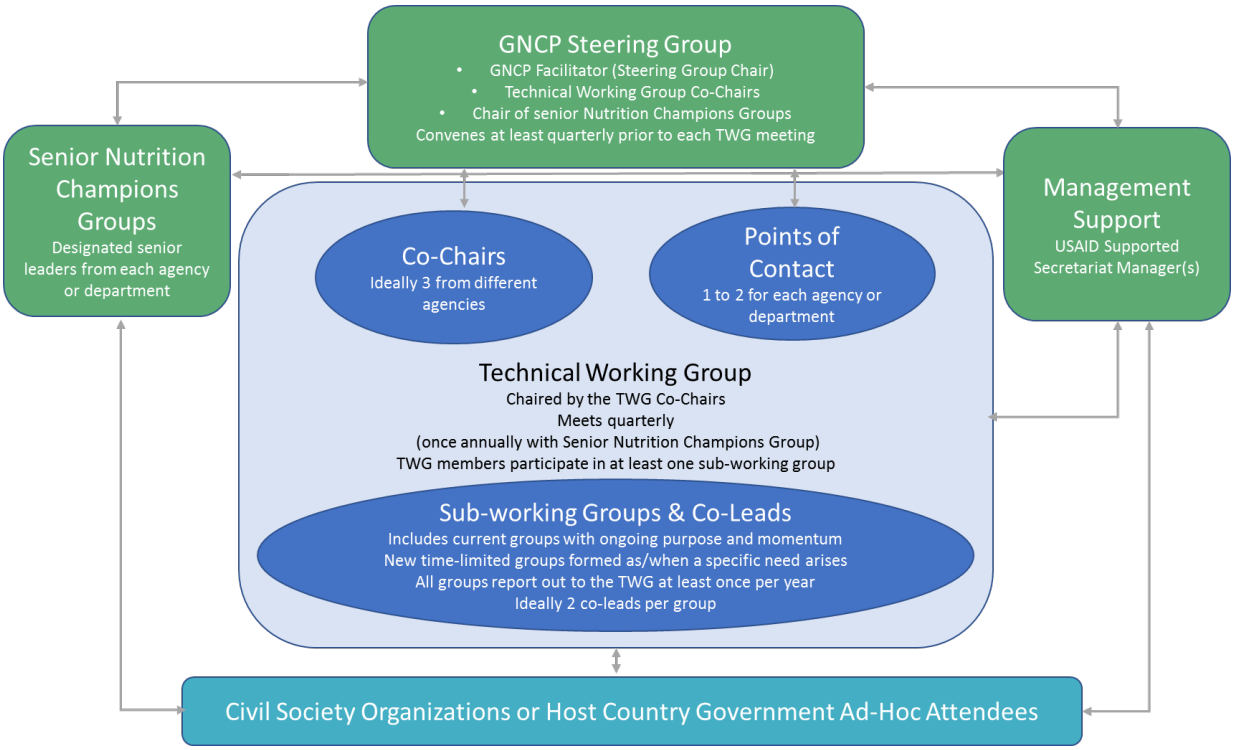
Experience implementing the first Global Nutrition Coordination Plan revealed that senior leadership elevating the importance of the Plan is crucial. To this end, under the second Coordination Plan a **senior nutrition champions group** has been established. These senior leaders will provide high-level strategic direction, inspirational oversight, and increased attention to nutrition through the Plan's development and implementation. Representing each of the participating government agencies and departments, they will meet at least quarterly, and work as a team to steward the Coordination Plan over the next five years. These leaders are also expected to participate in key meetings of the Plan as described in the section on structure below.

Among the central responsibilities of the senior nutrition champions will be promoting nutrition issues at the highest levels and facilitating support for action within their respective agency or department to achieve the vision, purpose, and results of the Plan. They will be responsible for ensuring and endorsing participation from their respective agency or department in sub-working groups. They are also expected to elevate nutrition in relevant national and global fora. In addition, they will draw attention to challenges encountered that might affect the ability of member agencies or departments to implement the Plan, thus increasing its overall effectiveness. A nominated chair and vice chair of the senior nutrition champions group will lead these efforts for a renewable, multi-year term.

Structure

Lessons learned from the first Global Nutrition Coordination Plan have informed the structure of the second Plan. The refined structure aims to increase its effectiveness in channeling communication and coordination to improve overall collaboration across the participating U.S. government agencies and departments. **Figure 2** shows this new structure. In addition, terms of references (TOR) have been developed that clearly define the specific roles and responsibilities of the members of each of these groups, and that identify more regular opportunities for exchanges with external stakeholders. These TORs describe the role of each group in proactively identifying and fostering greater communication, coordination, and collaboration across the participating agencies and departments. A description of each of these groups is summarized below.

Figure 2: Operating Structure of the Global Nutrition Coordination Plan 2021–2026



As before, a **technical working group** comprising members from all participating agencies and departments will serve as the central implementing body of the Plan, through which information will be shared and opportunities for coordination and partnerships actively identified. The TWG will hold quarterly meetings involving all members. The senior nutrition champions will attend one TWG meeting annually, to review the progress of the Coordination Plan.

Working closely with the senior **facilitator**, a group of three **TWG co-chairs,** who represent participating agencies and departments and serve on a rotating basis, will guide the TWG. The co-chairs also work closely with designated members of the TWG from each participating agency and department, known as **points of contact,** who serve as the bridge to their respective agencies/departments and senior nutrition champion.

A **steering group** has been formed with the goal of providing overarching leadership—*strategic and managerial*—to the Coordination Plan, including fostering communication and collaboration between the involved departments and agencies. The members of the steering group will draw from the agencies and departments supporting the Plan and will comprise a senior facilitator (as chair of the steering group), the TWG co-chairs, and the chair and vice chair of the senior nutrition champions group. The steering group will communicate regularly on matters related to the Plan, and to meet quarterly in advance of each TWG meeting to develop the agenda. In doing so, the steering group will ensure promising or pressing opportunities for collaboration

around the nutrition priorities are included for discussion by the TWG. The steering group also manages the process to track the progress of the Plan.

The TWG will form **sub-working groups** on an as needed basis, to address discrete issues or opportunities related to one of the six Plan priorities that would benefit from coordinated input from participating agencies and departments, and will remain active until the objectives are achieved. These opportunities will be determined through the TWG co-chairs liaising at least annually with the points of contact and senior nutrition champions from each agency and department will determine these opportunities. Any participating TWG member can also propose and then lead a *pro tempore* sub-working group. Sub-working groups from the first Plan with strong momentum and purpose will continue under the new plan as long as their purpose remains relevant. Also as before, overall **technical and management support** will be provided to the TWG in carrying out activities under the Plan.

CONCLUSION

The first Global Nutrition Coordination Plan made important contributions to uniting a community of nutrition professionals across the U.S. government, allowing them to share more efficiently information on programs and policies and to draw on a rich reserve of technical expertise. The second Plan builds on these strengths and adds mechanisms to engage higher level decision-makers in these exchanges so that both the challenges and solutions receive attention and spur action. The more unified structure will also enhance opportunities for communication and collaboration, and the reorganized sub-working groups will allow for more nimble responses to emerging and growing threats. As importantly, the expected results frame an approach for tracking the outcomes of the collaboration engendered by the Plan. Ultimately, the aspiration is for these elements to come together to accelerate progress towards a well-nourished world.

APPENDIX A: U.S. GOVERNMENT DEPARTMENTS AND AGENCIES OPERATING IN INTERNATIONAL NUTRITION

Table 8: Departments and Agencies

U.S. Department/ Agency	Primary Functions	Role in Global Nutrition
Millennium Challenge Corporation	MCC is an innovative and independent U.S. government agency working to reduce global poverty through economic growth. The agency provides time-limited grants and assistance to countries that demonstrate a commitment to good governance, investments in people, and economic freedom.	MCC's country-led programs are structured to build capacity and invest in long-term, sustainable development. Our data-driven process develops investments to unlock a country's most binding constraints to economic growth. MCC invests directly or indirectly in improving nutrition when nutrition is identified as a binding constraint to economic growth or a benefit to a nutrition-related investment.
Peace Corps	The Peace Corps sends Americans abroad to tackle the most pressing needs of people around the world. The Agency works at the invitation of host country governments and in collaboration with partner organizations using community focused, evidence-based best practices to enhance impact.	Peace Corps Volunteers work and live in communities to strengthen capacity through knowledge sharing and skill building for sustainable behavior change in maternal, newborn, child, and adolescent nutrition while promoting nutrition-sensitive agriculture practices and food security at the household level.

U.S. Department/ Agency	Primary Functions	Role in Global Nutrition
U.S. Agency for International Development	USAID leads the U.S. government's international development and disaster assistance through partnerships and investments that save lives, reduce poverty, strengthen democratic governance, and help people emerge from humanitarian crises and progress beyond assistance.	USAID's Multi-Sectoral Nutrition Strategy 2014–2025 seeks to improve nutrition to save lives, build resilience, increase economic productivity, and advance development. The Strategy's multi-sectoral approach address both direct and underlying causes of malnutrition and links humanitarian assistance with development programming to help build resilience to shocks in vulnerable communities. USAID works with partners to scale up effective, integrated nutrition-specific and -sensitive interventions, programs, and systems across humanitarian and development contexts. The Bureau for Resilience and Food Security's investments strive to increase and safeguard the availability, affordability, and access to safe nutritious foods. The Bureau for Humanitarian Assistance provides needs-based emergency nutrition response programs to protect lives and support critical health, nutrition, and social protection service delivery. The Bureau for Global Health works to strengthen health systems to deliver nutrition services, and to promote and protect optimal maternal nutrition and feeding practices for infants and young children.
U.S. Department of Agriculture	USDA's mission is to provide leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on sound public policy, the best available science, and efficient management. Its vision is to provide economic opportunity through innovation helping rural America to thrive; to promote agriculture production that better nourishes Americans while also helping feed others throughout the world; and to preserve and conserve the Nation's natural resources through conservation, restored forests, improved watersheds, and healthy private working lands.	

U.S. Department/ Agency	Primary Functions	Role in Global Nutrition
Agricultural Marketing Service	AMS oversees commodities, inspections, and agricultural market information systems. AMS works with USAID and USDA to procure U.S. government international food aid commodities, and to update commodity requirements documents to reflect new and/or enhanced food safety and grade requirements for commonly used commodities.	
Agricultural Research Service	ARS conducts research linking foods and/or food production to nutrition and human health. ARS research is often globally relevant.	
Economic Research Service	ERS conducts economic and social science research on issues related to food, agriculture, the environment, and rural development	Researches and publishes international food security data, findings, and projections each year in the International Food Security Assessment.
Food and Nutrition Service	FNS harnesses the nation's agricultural abundance to end hunger and improve health in the U.S. It administers federal domestic nutrition assistance programs and the Center for Nutrition Policy and Promotion, which links scientific research to the nutrition needs of consumers through science-based dietary guidance, nutrition policy coordination and nutrition education.	Share with the global community relevant U.S. best practices, lessons learned and other technical support regarding nutrition and food security programs, including school nutrition programs, the WIC program, and Supplemental Nutrition Assistance Program, and science-based dietary guidance, as requested.
Food Safety and Inspection Service	FSIS ensures that the commercial supply of meat, poultry, and egg products in the U.S. is safe, wholesome, and correctly labeled and packaged.	
Foreign Agricultural Service	FAS facilitates trade and international cooperation, promoting U.S. agricultural exports and global food security.	The McGovern-Dole International Food for Education and Child Nutrition program reaffirms the U.S. global commitment to childhood education and nutrition. Since 2001, under FAS management, the McGovern-Dole program has supported projects in 44 countries. FAS also supports the Borlaug and Cochran Fellowship Programs, which bring government officials and academicians to the United States for training and mentorship in agriculture, food, and nutrition topics.

U.S. Department/ Agency	Primary Functions	Role in Global Nutrition
National Institute of Food and Agriculture	NIFA funds agricultural science and research on such topics as food security and hunger, climate change, sustainable energy, childhood obesity, and food safety.	
Office of the Chief Scientist	OCS is responsible for scientific prioritization and coordination across USDA.	OCS coordinates USDA input into the Feed the Future Research Strategy, co-chairs the Feed the Future Interagency Working Group on Research, and represents the U.S. government as a member of the Global Open Data for Agriculture and Nutrition initiative.
U.S. Department of Health and Human Services	HHS is the U.S. government's principal agency for enhancing the health and well-being of all Americans, by providing for effective health and human services and by fostering sound, sustained advances in the sciences underlying medicine, public health, and social services.	
Centers for Disease Control and Prevention	CDC is charged with protecting the public health of the nation by providing leadership and direction in the prevention and control of diseases and other preventable conditions and responding to public health emergencies.	CDC works with global partners to provide leadership for global micronutrient deficiency elimination by contributing to the development of policies and guidelines; providing technical assistance to support effective industrial food fortification, home fortification, and vitamin and mineral supplementation interventions; and participating in nutrition initiatives. CDC also supports the implementation of high-quality assessments, monitoring and evaluation, and surveillance systems in countries, enhances the evidence base to improve nutrition interventions and program effectiveness, especially for micronutrients, and supports emergency response to public health crises.

U.S. Department/ Agency	Primary Functions	Role in Global Nutrition
Food and Drug Administration	FDA protects and promotes U.S. public health, in part, by ensuring the safety and proper labeling of the nation's food supply (except those foods regulated by USDA) and, in cooperation with industry, providing consumers with information and food choices to help them maintain healthy diets.	The FDA is committed to finding new ways to reduce the burden of chronic disease through improved nutrition. The agency uses our tools and authorities to both empower consumers with information and facilitate industry innovation toward healthier foods that consumers want. Globally, FDA works closely with our counterparts as an active participant within the Codex Alimentarius Commission to set science-based standards and guidelines on food labeling, foods for special dietary uses, and foods intended for infants.
National Institutes of Health	NIH's mission, executed by 27 institutes and centers is to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.	With coordination by the Division of Program Coordination, Planning, and Strategic Initiatives, NIH supports basic, clinical, and applied research and training on the full range of issues associated with improved understanding of the role of diet and nutrition in health promotion and disease prevention in the U.S. and globally. Many of these activities, particularly in low- and middle-income settings throughout the world are coordinated by the NIH Fogarty International Center.
Office of Global Affairs	OGA is the diplomatic voice of the Department of Health and Human Services. OGA fosters critical global relationships, coordinates international engagement across HHS and the U.S. government, and provides leadership and expertise in global health diplomacy and policy to contribute to a safer, healthier world.	
U.S. Department of State	The Department of State assists the President, through the Secretary of State, in formulating and executing the foreign policy and relations of the United States of America.	

U.S. Department/ Agency	Primary Functions	Role in Global Nutrition
Office of Global Food Security		S/GFS conducts strategic planning and guides diplomatic efforts to advance U.S. global hunger and food security initiative objectives, with a particular focus on major donor and strategic partner countries as well as multilateral institutions such as the G7 and G20, the U.N. General Assembly, and the Committee on World Food Security. It leads the U.S. government's diplomatic engagement in multilateral fora. S/GFS also supports the Nutrition for Growth, U.N. Food Systems Summit, and the Scaling Up Nutrition Movement.
Office of the U.S. Global AIDS Coordinator and Health Diplomacy		S/GAC oversees and directs all resources and international activities of the U.S. government to combat the global human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) pandemic, including U.S. contributions to the Global Fund to Fight AIDS, Tuberculosis, and Malaria.
Office of International Health and Biodefense, Bureau of Oceans and International Environmental and Scientific Affairs		IHB promotes U.S. national security and economic prosperity by combating biothreats and outbreaks of infectious disease through diplomacy.
U.S. International Development Finance Corporation	DFC is America's development bank. DFC partners with the private sector to finance solutions to the most critical challenges facing the developing world today.	Through its Health and Prosperity Initiative, DFC aims to mobilize private sector investment to strengthen health systems, support infrastructure development, and expand access to clean water, sanitation, and nutrition. DFC will prioritize investments that complement other U.S. Government global health programs, support whole of government initiatives such as Feed the Future, and advance the agency's 2X Women's Initiative. DFC will seek to commit $1 billion by 2025 in projects, primarily in LICs and LMICs, throughout the food system to help eliminate hunger and malnutrition by 2030.

APPENDIX B: ILLUSTRATIVE U.S. GOVERNMENT GLOBAL COMMITMENTS RELEVANT TO NUTRITION

- The Global Food Security Strategy, the legislative name for Feed the Future, is a whole-of-government initiative aimed at transforming lives toward a world where people no longer face extreme poverty, undernutrition, and hunger. Partnering with a wide range of stakeholders, the effort coordinates U.S. government expertise to advance inclusive and sustainable agricultural-led economic growth; strengthen the resilience of people and systems to shocks and stresses; and contribute to well-nourished populations. The initiative brings together partners from across multiple sectors to apply the unique skills and insights of each in a coordinated way to help target countries transform their food systems. Feed the Future seeks to: increase agricultural productivity and markets to generate opportunities for economic growth and prosperity; strengthen the resilience of communities to effectively withstand and rebound from crises when they do occur; reduce hunger and improve nutrition, especially among mothers and children; and increase the exchange of ideas, technologies, and products that benefit both citizens at home and communities abroad. The program emphasizes country ownership, building public-private partnerships, and spurring research and innovation.

  Mandated by the Global Food Security Act of 2016, the U.S. Government Global Food Security Strategy 2017–2021 guides implementation of the Feed the Future initiative for all relevant U.S. government departments and agencies, including the Departments of Agriculture, Commerce, State and Treasury, as well as USAID, MCC, DFC, Peace Corps, the U.S. Trade Representative, the U.S. African Development Foundation, and the USGS. Partnering with a wide range of stakeholders, the effort coordinates U.S. government expertise to advance inclusive and sustainable agricultural-led economic growth, strengthen the resilience of people and systems to shocks and stresses, and contribute to well-nourished populations.

- The U.S. is actively engaged in the Nutrition for Growth global effort to bring country governments, donors, businesses, civil society and other to commit to accelerating progress on malnutrition. The third Summit planned for Tokyo in December of 2021 will mobilize contributions to reverse the impacts of COVID-19 and position nutrition as an essential development priority. Since the first summit in 2013, the U.S. has supported country-owned interventions to reduce micronutrient deficiencies, identify and scale cost-effective, evidence-based and sustainable solutions, and promote effective investments in 31 countries. The U.S. also participated in the 2021 Food Systems Summit convened by the U.N. Secretary General to inspire bold new actions to transform the way the world produces and consumes food.

- The U.S. government contributes to the Global Agriculture and Food Security Program, an innovative, multi-donor trust fund housed at the World Bank. The program has channeled $1.6 billion to fight hunger, malnutrition, and poverty in more than 45 low-income countries, reaching more than 13 million people,

mostly smallholder farmers. Two-thirds of the projects directly address climate change through mitigation and adaptation technologies such as resistant seed varieties, more efficient irrigation, and drought-resistant mulching.

- The U.S. government strategy for Advancing Protection and Care for Children in Adversity coordinates a whole-of-government effort to support the development, care, dignity, and safety of the world's most vulnerable children and their families, including children affected by HIV/AIDS and disasters, as well as those orphaned, trafficked, exploited for labor or combat. The effort involves the Departments of Labor and State, CDC, NIH, USAID, and Peace Corps organized around the strategic objectives of building strong beginnings, ensuring vulnerable children receive nurturing and permanent family care, and protecting children from violence.

- The U.S. government contributed to shaping the 2030 Agenda for Sustainable Development and is working with countries and communities around the world to realize the 17 Sustainable Development Goals**.** The framework recognized the interconnectedness of the challenges of poverty, inequality, environmental degradation and climate change, and conflict and injustice—and of their solutions. It is also clear that optimal nutrition is essential for the success of all the SDGs.

- The U.S. government is also a founding partner with the G8 (now G7) and ten African countries of the New Alliance for Food Security and Nutrition. Launched in 2012, the Alliance is a shared commitment to achieve sustained, inclusive, agriculture-led growth in Africa by promoting specific policy reforms and investments together with enabling actions to overcome constraints and unleash the potential of agriculture in Africa.

- The U.S. President's Emergency Plan for AIDS Relief was launched in 2003 to address HIV and AIDS globally, and coordinates U.S. government resources to prevent infections, save lives, and achieve sustainable control of the epidemic. The program has moved from its initial emergency response phase—which brought HIV prevention, treatment and care services to millions—to a sustainability phase, in which it has focused on working with partners to manage the epidemic. The legislation has been reauthorized three times, most recently in 2018, when it was extended through fiscal year 2023. Current priorities are building transparency and accountability for impact, as well as accelerating core interventions for epidemic control. PEPFAR invests resources strategically and geographically to reach populations at greatest risk with evidence-based programs.

APPENDIX C: GLOSSARY OF TERMS

1,000 Days: The 1,000 days from the beginning of pregnancy to a child's second birthday is the most critical time for positive impact on a child's cognitive, intellectual, and physical development because this is a period of especially rapid growth and maturation and thus elevated nutrient requirements. Good nutrition in the first 1,000 days lays the foundation for health, development, and even prosperity for the next generation.

Accountability: The establishment of clear responsibility for designing and managing, achieving, and reporting on results in order to promote national and global transparency.

Acute Malnutrition: This is a common term for identifying acute undernutrition, and it reflects a recent and severe process that has led to substantial weight loss and nutrient deficiency, usually associated with severe deprivation and/or disease. It includes wasting and also nutritional bipedal edema in which nutritional deficiencies lead to swelling of limbs (feet, hands) due to retention of fluids. Often used to assess the severity of emergencies because it is strongly related to mortality.

Anemia: Low concentration of hemoglobin in the blood, as evidenced by a reduced quality or quantity of red blood cells. Anemia could be caused by genetic traits, parasitism, infectious diseases, and/or nutritional deficiencies. For the latter, iron deficiency is the most important reason, especially in women of childbearing age, although other micronutrient deficiencies such as vitamin A, vitamin B12, folate, and even vitamin B2 could also be important in developing countries.

Anthropogenic: Of, relating to, or resulting from the influence of human beings on nature.

Baby-Friendly Hospital Initiative (BFHI) 10 Steps to Successful Breastfeeding:

There is substantial evidence that implementing the BFHI Ten Steps to Successful Breastfeeding significantly improves breastfeeding rates. A systematic review of 58 studies on maternity and newborn care published in 2016 demonstrated clearly that adherence to the Ten Steps impacts early initiation of breastfeeding immediately after birth, exclusive breastfeeding, and total duration of breastfeeding.[58] These are—

Critical management procedures:

1. Comply fully with the *International Code of Marketing of Breast-milk Substitutes* and relevant World Health Assembly resolutions.
    a. Have a written infant feeding policy that is routinely communicated to staff and parents.
    b. Establish ongoing monitoring and data-management systems.
2. Ensure that staff have sufficient knowledge, competence and skills to support breastfeeding.

Key clinical practices:

3. Discuss the importance and management of breastfeeding with pregnant women and their families.
4. Facilitate immediate and uninterrupted skin-to-skin contact and support mothers

58 Pérez-Escamilla R., J.L. Martinez, S. Segura-Pérez. 2016. "Impact of the Baby-friendly Hospital Initiative on Breastfeeding and Child Health Outcomes: A Systematic Review." *Maternal Child Nutrition*. 12(3):402–17. doi.org/10.1111/mcn.12294

to initiate breastfeeding as soon as possible after birth.
5. Support mothers to initiate and maintain breastfeeding and manage common difficulties.
6. Do not provide breastfed newborns any food or fluids other than breast milk, unless medically indicated.
7. Enable mothers and their infants to remain together and to practice rooming-in 24 hours a day.
8. Support mothers to recognize and respond to their infants' cues for feeding.
9. Counsel mothers on the use and risks of feeding bottles, teats and pacifiers.
10. Coordinate discharge so that parents and their infants have timely access to ongoing support and care.

Body Mass Index (BMI): Body weight in kilograms divided by height in meters squared (kg/m2). For adults 20 and over, BMI is used as a screening tool to assess health risk. Individuals with both high BMI (overweight and obese, BMI between 25 and 29.9 and >30 respectively) and low BMI (underweight, BMI less than 18.5 in adults) face elevated health risks.

Codex Alimentarius: The "Food Code" was established by the Food and Agricultural Organization of the United Nations and the World Health Organization in 1963 to develop harmonized international food standards, which protect consumer health and promote fair practices in food trade. Also referred to simply as Codex.

Dietary Diversity: The number of different categories of foods or food groups consumed over a given period of time.

Diet-related non-communicable diseases: Non-communicable diseases in which dietary and physical activity patterns are major contributing factors and/or important components of disease management.

Equity: Ensure coverage for poor and hard-to-reach populations regardless of gender, class, caste, ethnicity, or sexual orientation.

Essential Nutrition Actions (ENA): An integrated approach to delivering a package of evidence-based nutrition-specific interventions through health facilities and multisectoral community platforms. The focus is on women's nutrition during pregnancy and lactation, optimal feeding of the infant (breastfeeding and complementary feeding), nutritional care of sick and malnourished children, and the control of iron, vitamin A, iodine, and zinc deficiencies. Multichannel communications strategies to support the adoption of optimal practices, and broad partnerships to assure harmonization of messages and delivery are also part of the ENA framework. The framework has been revised to include a set of **Essential Hygiene Actions**.

Exclusive breastfeeding: Infant receives only breast milk, without any additional food or drink (not even water), until 6 months of age.

Food Fortification: The practice of deliberately increasing the content of essential micronutrients, (i.e., vitamins and minerals (including trace elements)) in a food, so as to improve micronutrient intakes at a population level and to provide a public health benefit with minimal risk to health or need for behavior change.

Food Safety: The conditions and practices that preserve the quality of food to prevent contamination and foodborne illnesses.

Food and Nutrition Security: The United Nations' Committee on World Food Security

definition (2012) is that all people, at all times, have physical, social, and economic access to food which is safe and consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services, and care, allowing for a healthy and active life.

Food Systems: The Food and Agricultural Organization definition encompasses the entire range of actors and their interlinked value-adding activities involved in the production, aggregation, processing, distribution, consumption, and disposal of food products that originate from agriculture, forestry or fisheries, and parts of the broader economic, societal, and natural environments in which they are embedded. A **sustainable food system** delivers food security and nutrition for all in such a way that the economic, social, and environmental bases for generating food security and nutrition for future generations are not compromised.

Gender Integration: Identify and then address gender inequalities during strategic planning and the design, implementation, monitoring, and evaluation of activities. Since the roles and relations of power between men and women affect how a project or activity is implemented, it is essential to address these issues on an ongoing basis.

Gender Transformative: Address the causes of gender-based inequalities and work to transform harmful gender roles, norms, and power relations.

Hunger: Not having enough energy (calories) available from food each day for continued basic functioning.

Inclusion: Invite the views and meaningful participation of all stakeholders—women and girls, men and boys, marginalized groups such as youth; ethnic, racial, or religious minorities; persons with disabilities; displaced persons; indigenous peoples; lesbian, gay, bisexual, transgender, and intersex individuals; and people from all socioeconomic strata.

Malnutrition: A condition resulting when a person's diet does not provide adequate nutrients for growth and maintenance or if they are unable to fully utilize the food they eat due to illness: consists of both under- (insufficiency) and over- (excess) nutrition.

Micronutrients: Substances (i.e., vitamins and minerals) needed by the body in relatively small amounts for body functions.

Multi-sectoral: Integrating nutrition support across all relevant sectors, including, but not limited to, health, agriculture, water and sanitation, education, and social protection.

Noncommunicable diseases: Also known as chronic diseases, these are not passed from person to person. They are of long duration and generally slow progression, and unhealthy diets increase the risk of these diseases.[59] The four main types of noncommunicable diseases are cardiovascular diseases (e.g., heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructed pulmonary disease and asthma), and diabetes. Persons suffering from these diseases are at increased risk of more severe cases of COVID-19.

Nutrition: The biochemical and physiological process by which an individual uses food and its constituent nutrients to support the full range of physical and mental activities that comprise life and good health, including

59 See World Health Organization definition at https://www.who.int/health-topics/noncommunicable-diseases#tab=tab_1

ingestion, assimilation, biosynthesis, catabolism, and excretion. A broader definition also includes the social, economic, cultural, and psychological implications of food and eating.

Nutrition-sensitive: Interventions that address the underlying and basic determinants of malnutrition and incorporate specific nutrition goals and actions.

Nutrition-specific: Programs and plans that are designed to address the immediate causes of suboptimal growth and development.

Overweight and Obesity: Abnormal or excessive fat accumulation that may impair health. Body mass index is a simple index of weight for height that is commonly used to classify overweight and obesity in adults. A BMI greater than or equal to 25 is overweight; a BMI greater than or equal to 30 is obese. For children and teens, BMI is age and sex- specific and is often referred to as BMI-for-age. A BMI at or above the 85th percentile and below the 95th percentile of the same age and sex is classified as overweight; a BMI at or above 95th percentile of the same age and sex is classified as obese.

Processed foods: Includes all methods and techniques used by food and drink producers to turn whole fresh foods into food products. A useful classification system, NOVA,[60] defines four categories: **1)** minimal processing, applied to single basic food to preserve, make more accessible and often safer; **2)** processed culinary ingredients similar to group 1 but for ingredients designed to be added to other foods; **3)** processed foods, made by applying substances from group 2 to group 1 to increase durability or enhance palatability; and **4)** ultra-processed food products, which are formulations made mostly or entirely from substances derived from foods and additives with little if any intact group 1 foods. These include ready-to-eat or ready-to-heat products. The last products are designed to be highly palatable, and foods in this category have been associated with increased risk of obesity and nutrition-related non-communicable diseases.

Resilience: The ability of people, households, communities, countries, and systems to migrate, adapt to, and recover from shocks and stress in a manner that reduces chronic vulnerability and facilitates inclusive growth.

Social Protection: Government support programs designed to help individuals and families, especially the poor and vulnerable, cope with crises and shocks, find jobs, improve productivity, invest in the health and education of their children, and protect the aging population.

Stunting: Inadequate length/height-for-age, defined as more than 2 standard deviations below the median of the WHO Child Growth Standards, resulting from chronic undernutrition. Stunting reflects suboptimal food and nutrient intakes, insufficient preventive healthcare and unhygienic environments, poor maternal nutrition, and inappropriate infant and young child feeding and care by mothers and other members of the family and the community during the most critical periods of growth and development in early life.

Undernourishment: A state, lasting for at least 1 year, of inability to acquire enough food, defined as a level of food intake insufficient to meet dietary energy requirements. Hunger is often defined as being synonymous with chronic undernourishment.

60 Monteiro, C. A., G. Cannon, J-C. Moubarac, R.B. Levy, M.L.C. Louzada, P.C. Jaime. 2017. "The UN Decade of Nutrition, The NOVA Food Classification and the Trouble with Ultra-processing." *Public Health Nutrition,* 21(1): 5–17. doi.org/10.1017/S1368980017000234

Undernutrition: Various forms of poor nutrition caused by a complex array of factors including dietary inadequacy, infections, and sociocultural factors. Undernutrition includes being underweight for one's age, too short for one's age (stunted), dangerously thin for one's height (wasted), and deficient in vitamins and minerals (micronutrient malnutrition).

Wasting: Low weight-for-height defined as more than 2 standard deviations below the median of the WHO Child Growth Standards and/or mid-upper arm circumference of <125 mm. Wasting is usually the result of a recent, acute deprivation and/or illness, and is strongly linked to mortality. It is one type of acute malnutrition, the other being bipedal edema.

The U.S. Government Global Nutrition Coordination Plan (GNCP) 2016–2021 is an interagency effort to strengthen both domestic and international nutrition interventions, thereby ensuring efficient and effective use of American investments. The GNCP aims to harness the power of the many diverse investments across the U.S. Government through better communication and collaboration and by linking research to program implementation. By embracing cross-U.S. Government partnerships and coordination, the impact of resources can be enhanced to improve nutrition worldwide.

Learn more at www.usaid.gov/what-we-do/global-health/nutrition/usgplan