

Ending hunger and achieving food security for all

Answers to guiding questions -UNFPA

System	Closely related SDGs selected for HLPF	Selected SDGS with synergies to harness	Selected SDGs where trade-offs need to be mitigated
Ending hunger and achieving food security for all: <i>strengthening livelihoods of the poor, ensuring sustainable and healthy food production systems and improving the lives of all</i>	2, 3, 17	1, 4, 5, 6, 8	6, 13, 14, 15

V Guiding questions

1. **Which areas and socio-economic groups** are especially vulnerable to poor nutrition and food insecurity and what are ways to ensure that food systems transformations leave no one behind?

Key messages:

- *There are striking interlinkages between nutrition and food security, poverty, gender, and reproductive health- with girls, adolescents and women especially vulnerable to malnutrition given the negative impacts of gender inequality and other forms of discrimination on individual food security and access to nutrients;*
- *Lack of universal access to optimal nutrition among girls, pregnant women and infants has long lasting and intergenerational consequences for sexual and reproductive health and development, resulting in negative pregnancy outcomes and lifelong consequences that include lower cognitive development for the newborn, delayed maturation, extended adolescent growth periods, as well as adult-onset conditions, such as obesity and diabetes;*
- *Poverty and food insecurity are among key drivers of sexual bartering, survival sex, sex work and child marriage. The special nutritional needs among girls and young women needs to be prioritized as part of a comprehensive approach to breaking the intergenerational cycle of poverty and gender discrimination, including by ending child marriage, discouraging early childbearing, and assuring that all young women have the opportunity to grow into adulthood before starting a family.*

Food insecurity – i.e. the lack of consistent access to food – diminishes dietary quality, disrupts normal eating patterns, and coincides with eating patterns that heighten the risk of overweight and obesity. **In today's world, hunger is caused by poverty and inequality, not scarcity. Nonetheless, diets lacking adequate nutrition are a leading contributor to deaths worldwide, as malnutrition heightens risk for both infectious and non-communicable diseases (NCDs).** Suboptimal diet is responsible for more deaths than any other behavioural, environmental or occupational risk globally¹, including tobacco smoking and also represents a high risk in terms of sexual and reproductive health and rights.

The highest burden of all forms of malnutrition is shouldered by the poorest communities. **Gender inequality and other forms of discrimination further impact individual food security and access to nutrients.** Population ageing also raises new challenges for assuring optimal nutrition throughout the life cycle.

Girls, adolescents and women of reproductive age are a special vulnerable group given the striking interlinkages between nutrition, food security and reproductive health. Different forms of malnutrition are intrinsically linked through biological pathways that start as early as in utero and thread through lifetime nutrition and health trajectories. People who experience early-life undernutrition are at a greater risk of becoming overweight or obese as they move into adulthood; and those who do become overweight or obese are more susceptible to developing diet-related NCDs, such as diabetes or cardiovascular diseases, than those well-nourished early in life².

Lack of universal access to optimal nutrition among girls, pregnant women and infants has long lasting and intergenerational consequences for sexual and reproductive health and development³. Undernutrition in pregnancy increases the risks of premature births, low-birth-weight babies, and postpartum haemorrhage. Nearly 15 percent of babies born in 2015 were of low birth weight and more likely to die during their first month of life; those who survived face lifelong consequences, including a higher risk of stunted growth, risks for cognitive development, and adult-onset conditions such as obesity and diabetes⁴. Chronic undernutrition delays maturation and extends the adolescent growth period, overlapping with pregnancy where child marriage and early childbearing remain in force. Early pregnancy in a young undernourished female

¹ Ashfin, A., Sur, P. J., Fay, K. A., et al. 'Health effects of dietary risks in 195 countries, 1990–2017: A systematic analysis for the Global Burden of Disease Study 2017', *The Lancet*, 2017. 393(10184), 1958–72.

² Black RE, Allen L.H, Bhutta Z.A et al. 'Maternal and child undernutrition: Global and regional exposures and health consequences'. *The Lancet*. 2008;371:243-260

³ *ibid*

⁴ <https://data.unicef.org/topic/nutrition/low-birthweight/>

negatively impacts her own growth, and short intervals between births worsen pregnancy outcomes⁵.

The developmental demands of the fetus increase micronutrient requirements and the risk for deficiencies that affect maternal and newborn health and mortality. In 2016, one in three women of reproductive age (15–49 years) was anaemic⁶, increasing the risk for haemorrhage, the leading cause of maternal death (23 percent of total deaths). compared with North America and Europe, the anaemia prevalence rate in Africa and Asia is more than double⁷. Among pregnant women, antenatal micronutrient supplementation is a low-cost and feasible way to improve birth outcomes⁸. UNICEF's Multiple Micronutrient Preparation (UNICEF UNIMAP) supplement contains 14 micronutrients at levels appropriate for daily intake during pregnancy. The global prevalence of maternal anemia could be reduced by one-third to one half over a decade if action were taken to support focused, large-scale programs⁹.

The consequences of malnutrition are largely preventable, particularly during the crucial 1000 day window during pregnancy and the first 2 years of life. The Lancet series on maternal health and nutrition identified breastfeeding and complementary feeding as one of the most cost-effective investments that yield permanent and inalienable benefits¹⁰. However, globally nearly three out of five infants are not exclusively breastfed for the recommended six months¹¹.

Since 1975, there has been a tenfold increase in overweight and obesity among children and adolescents, in particular in countries with a high burden of communicable, maternal, and nutritional conditions¹². **Maternal overweight is the most common risk factor of pregnancy-**

⁵ Frisancho, A.R., J. Matos, and P. Flegel. 1983. "Maternal Nutritional Status and Adolescent Pregnancy Outcome." *The American Journal of Clinical Nutrition* 38(5): 739–746

⁶ Azzopardi et al. 'Progress in adolescent health and wellbeing: tracking 12 headline indicators for 195 countries and territories, 1990–2016'. *Lancet* 2012. 393: 1101–18.
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)32427-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)32427-9/fulltext)

⁷ https://www.who.int/vmnis/anaemia/prevalence/summary/anaemia_data_status_t2/en/

⁸ Haider HA and Bhutta ZA. 2015, Multiple-micronutrient supplementation for women during pregnancy. *Cochrane Database Syst Rev.* 2017 Apr 13;4:CD004905.

⁹ Sanghvi TG et al, (2010) Maternal iron-folic acid supplementation programs: evidence of impact and implementation. *Food Nutr Bull.* 2010 Jun;31(2 Suppl):S100-7.

¹⁰ Bhutta Z.A., Ahmed T., Black RE, et al, for the Maternal and Child Undernutrition Study Group. 'What works? Interventions for maternal and child undernutrition and survival'. *Lancet* 2008; 371: 417–40.

¹¹ UNICEF. *The State of the World's Children 2019. 'Children, Food and Nutrition: Growing well in a changing world'*. UNICEF, 2019. New York.

¹² Ashfin, A., Sur, P.J., Fay, K.A., et al. 'Health effects of dietary risks in 195 countries, 1990–2017: A systematic analysis for the Global Burden of Disease Study 2017', *The Lancet*, 2017. 393(10184), 1958–72.

related maternal morbidity, preterm birth, and increased infant mortality¹³. Overweight or excess weight gain during pregnancy increases the risk of gestational diabetes and large size at birth. In some developed country settings, maternal obesity is also associated with delayed lactogenesis and short breastfeeding duration.

On every continent, the prevalence of food insecurity is higher among women. As primary caregivers, women play a crucial role in child feeding, yet they face gender-based violence and harmful practices, intrahousehold discrimination, restrictions to their education and employment opportunities, and gender-biased laws that limit their access to land and financing. Women are disproportionately overrepresented among landless populations that face food insecurity and are unable to meet basic needs, being often pushed into wage farm labour and endangering their livelihoods¹⁴.

Poverty and food insecurity are drivers of sexual bartering, survival sex, sex work, and child marriage. Malnutrition impacts child marriage, and early childbearing. Food insecurity and poverty in the agriculture sector can lead families to resort to child early and forced marriage (CEFM) as a way to ease the financial pressure, having fewer mouths to feed, while placing their daughters in a more secure household. In countries where CEFM is already occurring, economic pressures from climate related and other shocks to the agriculture sector can exacerbate incidents of CEFM¹⁵. In rural contexts, young brides may be pressured to have frequent pregnancies. Young brides and their children experience higher rates of malnutrition than those who marry later, as well as lower levels of educational attainment and less access to agricultural training and resources, perpetuating a cycle of poverty and food insecurity .

Food insecurity and malnutrition related morbidity and mortality are closely linked to poverty, exclusion and marginalization. Socially excluded and marginalized groups face greater risk of malnutrition. Globally, nearly 370 million indigenous people are socially excluded and marginalized and face greater risk of food insecurity and malnutrition and indigenous women die in pregnancy and childbirth more often than other women¹⁶. Children in most disadvantaged ethnic groups in LMICs have on average 2.8 times the rate of stunting and six times the rate of

¹³ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2621047/>

¹⁴ <http://www.fao.org/3/am307e/am307e00.pdf>

¹⁵ <https://www.girlsnotbrides.org/wp-content/uploads/2016/03/6.-Addressing-child-marriage-Food-Security-and-Nutrition.pdf>

¹⁶ Horta, B. L., et al. 'Nutritional status of indigenous children: Findings from the First National Survey of Indigenous People's Health and Nutrition in Brazil, International Journal of Equity in Health, 2013.12(23).

wasting compared with their more advantaged peers adding to their future risk in terms of reproductive health and intergenerational development consequences¹⁷.

People living with a disability are more vulnerable to food insecurity and malnutrition. Disability can be both a cause and consequence of malnutrition; stigma around disability can result in newborns not being breastfed or children being given less nutritious or smaller portions of food.

Conflict and insecurity, climate shocks and economic turbulence are common drivers of food insecurity, exacerbating nutritional risks and often leading to an increase in acute malnutrition in emergencies. Women go hungry more often than men in times of crisis, even if they are pregnant or nursing.

The vulnerability to food insecurity and poor nutrition and their consequences for good sexual and reproductive health and rights is not uniform across regions, countries, populations and socio-economic groups. Regionally, the risk of food insecurity and malnutrition is more pronounced in Africa and Asia and lowest in Europe and Northern America and goes in parallel with risks for health and wellbeing, including maternal newborn child and adolescent health.

Food insecurity and poor nutrition are also linked to socio-economic status. Low-income households, small farmers, people with low levels of education, people living in geographically remote areas, rural areas and slums, and the unemployed are more likely to be food insecure and in poor health compared to high-income households, people with higher levels of education and urban dwellers¹⁸.

Several transformations to the global food system are required to end hunger and achieve food security for all – i.e. leave no one behind. The global report from the Food and Land Use Coalition (FOLU) proposes a reform agenda – centered around ten critical transitions. The aim of these actions is delivering the needed change to boost progress towards the SDGs, the Paris Agreement, help mitigate the negative effects of climate change, safeguard biodiversity, ensure more healthy diets for all, drastically improve food security and create more inclusive rural economies. They include: promoting healthy diets; scaling productive and regenerative agriculture; protecting and restoring nature; security a healthy and productive ocean; diversifying protein supply; reducing food loss and waste; building local loops and linkages; harnessing the

¹⁷ Save the Children. 'Unequal portions: ending malnutrition for every last child' [online]. London. 2016. [Cited 5 May 2019]. <https://s3.savethechildren.it/public/files/uploads/pubblicazioni/unequal-portions-ending-malnutrition-every-last-child.pdf>

¹⁸ FAO and others, The State of Food Security and Nutrition in the World 2019: Safeguarding against Economic Slowdowns and Downturns (Rome, 2019).

digital revolution; delivering stronger rural livelihoods and Improving gender equality and accelerating the demographic transition.

2. **What fundamental changes are needed** to make our food systems an engine for inclusive growth and contribute to accelerating progress towards ending hunger and achieving food security for all in the Decade of Action?
 - a) How could they be designed and implemented to generate synergies and strengthen existing ones with other Goals and Targets?

Key messages:

- **Universal health coverage (UHC) provides an important entry point for nutrition programs, offering the potential to greatly expand nutrition coverage and boost health outcomes. Ending hunger, including the hidden hunger of nutrient deficiency, requires national commitments to highly effective investments at scale, such as fortification of foods, nutrition for the maternal-infant dyad, promotion of breastfeeding, school-based feeding, and improved nutrition training among health workers;**
- **Family planning (FP), and by extension comprehensive sexuality education programmes, can have a significant influence on achieving key nutrition outcomes. Birth spacing allows women’s bodies to recuperate and replenish essential nutrients and leads to better nutritional outcomes for their infants¹⁹, and reduced prevalence of stunting among children under five²⁰. Thus, national and local programs aiming to improve nutrition may benefit from strengthening FP services and integrating FP strategies into multi sectoral development policies and implementation plans**
- **The transformation of food systems using climate smart and sustainable agricultural practices that simultaneously promote biodiversity, sustainable agriculture and nutrient density are urgently needed. Wherever possible, nutrition intervention programmes should promote local sustainable food production.**
- **The gender dimensions in agriculture highlight the interlinkages between agriculture and the health and wellbeing of women and girls, including their sexual and reproductive health and rights (SRHR), and therefore the co-benefits and synergies in addressing SRHR and improving agriculture and food production. For example,**

¹⁹ Winkvist, A., K.M. Rasmussen, and J.P. Habicht. 1992. “A New Definition of Maternal Depletion Syndrome.” *American Journal of Public Health* 82(5): 691–694.

²⁰ Conde-Agudelo, A., A. Rosas-Bermudez, and A.C. Kafury-Goeta. 2006. “Birth Spacing and Risk of Adverse Perinatal Outcomes: A Meta-Analysis.” *JAMA: The Journal of the American Medical Association* 295(15): 1809–1823.

agriculture employs 60% of the total female working population in South Asia, ensuring their access to SRHR services, essential for their wellbeing by extension will contribute to ensuring food security in the sub-region.

Nutrition is not only a challenge for health and different sectors need to be brought together: health, agriculture, education, water, sanitation and hygiene (WASH), social protection, environment, humanitarian and trade among others. Good nutrition and poverty are very much interconnected. Good nutrition is an enabler for better health, better education, better innovation, a world where it's good to live for everyone. It's preventing forced migration and conflict. Solving the nutrition challenge contributes to improved maternal, child and adolescent health.

Family planning (FP), and by extension comprehensive sexuality education programmes, can have a significant influence on achieving key nutrition outcomes. Thus, national and local programs aiming to improve nutrition may benefit from strengthening FP services and integrating FP strategies into multi sectoral development policies and implementation plans.

FP affects nutrition in myriad direct and indirect ways. Well-spaced births allow women's bodies to recuperate and replenish essential nutrients and lead to better nutritional outcomes, such as healthy birth weight for their infants²¹. Birth spacing also has far-reaching effects into childhood, reducing the prevalence of stunting among children under five²². For adolescents, delaying pregnancy until a healthy age (>18 years) can improve their own growth and development and also reduces the risk of poor nutritional outcomes for their infants.

Family planning indirectly affects nutrition via its impact on infant and young child feeding practices²³. When births are well spaced, mothers have more time, energy, and resources to adequately breastfeed and feed their young infants and children. Since mothers play a crucial role in feeding their families, reductions in maternal death can positively influence infant and child nutrition. Family planning can have an indirect impact on nutrition by reducing unintended pregnancies among adolescents, allowing them to stay in school and complete more years of

²¹ Winkvist, A., K.M. Rasmussen, and J.P. Habicht. 1992. "A New Definition of Maternal Depletion Syndrome." *American Journal of Public Health* 82(5): 691–694.

²² Conde-Agudelo, A., A. Rosas-Bermudez, and A.C. Kafury-Goeta. 2006. "Birth Spacing and Risk of Adverse Perinatal Outcomes: A Meta-Analysis." *JAMA: The Journal of the American Medical Association* 295(15): 1809–1823.

²³ <https://www.usaid.gov/sites/default/files/documents/1864/Nutrition-Food-Security-and-Family-Planning-Technical-Brief-508.pdf>

education²⁴. Greater education among women leads to greater productivity, empowerment, and control of resources—allowing them to make better choices that ultimately benefit the health and nutrition of children and families²⁵.

Food security and nutrition must be transformed into a crucial issue in the social and economic policy, and hunger eradication mainstreamed in the political agenda. Fulfilling the global ambitions to end hunger and achieve food security (SDG 2), attain good health and well-being (SDG 3), eradicate poverty (SDG 1), conserve and use marine and land resources sustainably (SDGs 14 and 15) and mitigate the impact of climate change (SDG 13) remains a daunting task at a time when slightly more than one in ten people worldwide are undernourished, nearly 2 billion adults are facing overweight or obesity and approximately 650 million live in conditions of extreme poverty.

Being the result of multiple and intersecting factors, addressing malnutrition requires both specific nutrition interventions and nutrition-sensitive approaches that highlight the synergies and complementarities with other SDGs. Specific Nutrition Interventions: Support for exclusive breastfeeding up to 6 months of age and continued breastfeeding, together with appropriate and nutritious food, up to 2 years of age; Fortification of foods; Micronutrient supplementation; and Treatment of severe malnutrition. Nutrition-Sensitive Approaches: Agriculture: Making nutritious food more accessible to everyone, and supporting small farms as a source of income for women and families; Clean Water and Sanitation: Improving access to reduce infection and disease; Education and Employment: Making sure children have the energy that they need to learn and earn sufficient income as adults; Health Care: Improving access to services to ensure that women and children stay healthy; Support for Resilience: Establishing a stronger, healthier population and sustained prosperity to better endure emergencies and conflicts; and Women’s Empowerment: At the core of all efforts, women are empowered to be leaders in their families and communities, leading the way to a healthier and stronger world.

A paradigm shift needs to break the silos of undernutrition and overweight and obesity while taking a broader and more comprehensive view of malnutrition in all its forms as programs and policies to improve nutrition at scale are developed. The current siloed approach can and has at times caused harm. **Nutrition actions need to be redesigned to simultaneously tackle all forms of malnutrition with what are known as double duty actions addressing obesity, micronutrient deficiencies, stunting and with a life course approach starting in utero and throughout all**

²⁴ Shah, P.S., T. Balkhair, A. Ohlsson, J. Beyene, F. Scott F, et al. 2011. “Intention to Become Pregnant and Low Birth Weight and Preterm Birth: A Systematic Review.” *Maternal and Child Health Journal* 15(2): 205–216.

²⁵ https://www.unicef.org/sowc04/sowc04_girls_positive_force.html

ages²⁶. UNFPA plays an important role in those nutrition-related actions that relate to maternal and neonatal care in particular.

Universal health care (UHC) provides an important entry point for nutrition programs. Governments have the opportunity to deliver on UHC by making policy and financial commitments to integrate nationally-tailored nutrition interventions within UHC. There is though, need to increase the health care workers' knowledge to assure that they have access to correct and up-to-date information, citing them as key to the success of nutrition programs. In the case of antenatal nutrition programs, in particular multiple micronutrient supplements (MMS), targeted training and coaching to health care workers can assure effective promotion of MMS²⁷.

The gender dimensions in agriculture highlight the interlinkages between agriculture and the health and wellbeing of women and girls, including their sexual and reproductive health and rights (SRHR), and therefore the co-benefits and synergies in addressing SRHR and improving agriculture and food production. For example, agriculture employs 60% of the total female working population in South Asia, ensuring their access to SRHR services, essential for their wellbeing by extension will contribute to ensuring food security in the sub-region.

Transitioning towards sustainable food systems will imply a focus on enabling more equitable global access to healthy diets, sustainable agriculture production, maximizing the nutritional value, reducing food loss and waste, providing decent livelihoods for all actors, minimizing the climate and environmental impacts and increasing the resilience of food systems.

There is a need to look into opportunities to merge food production and nutrition in such a way that we do not only answer the challenge of nutrition — how to nourish, in a healthy, way 9 billion people by 2050 — but also how do we do it in a way that is profitable for farmers while assuring sustainable use of limited water resources.

- b) What are some of the possible trade-offs from these changes and how can they be mitigated?

By its very nature, the field of nutrition cuts across many different sectors, such as agriculture, health, early childhood development, and humanitarian response, to name only a few. Many of

²⁶ [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(19\)33099-5/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)33099-5/fulltext)

²⁷ <https://www.devex.com/news/improving-prenatal-nutrition-through-multiple-micronutrient-supplements-97121>

these sectors have competing goals and demands — and it's easy for nutrition to get lost amid other priorities.

Food sits at the heart of several sustainability dilemmas at once, from human to environmental health and from social to economic inequalities. To feed a growing population agriculture must intensify, however, expansion of cropland is second to the need to protect forests and other areas of high value for conservation and carbon sequestration. Agriculture is increasingly competing with other uses for land – such as urbanization, transport, bioenergy, forestry and mining – and so crop production is pushed towards ever more marginal soils. **Yet more worrying is the fierce competition for water, with a shift in global production towards intensive systems that rely on groundwater resources for irrigation, along with the current growth in demand for water-intensive animal products, agriculture becomes even thirstier.** At the same time, urbanization and industrialization in emerging and developing economies are also driving up demand for fresh water in energy production, mineral extraction, and domestic use, further stretching the already tight supply.

Given the importance of healthy timing and spacing of pregnancies for good health and nutrition for mothers and children, and the impact of population growth and fertility rates on a country's capacity to feed itself, voluntary family planning should be an integral part of policy dialogue in the food security and nutrition arenas. In addition, more integrated programs are needed that both utilize nutrition and food security platforms for family planning and also utilize voluntary family planning services as an entry point for nutrition assessment, counseling, and support.

Climate change presents a profound threat to food security because biophysical stresses mean it will become increasingly difficult for agriculture to meet demand, and more extreme weather increases the risk of both local and systemic food crises. The poorest countries are most vulnerable, but crop failures in systemically important production regions will have global consequences that may extend beyond food systems. **Trade will then be critical to managing short-term production shortfalls and matching long-term changes in supply and demand** as the impacts of climate change on production accelerate and demand for food increases in developing countries. However, as markets become increasingly vulnerable to destabilizing production shocks in breadbasket regions, they will become a source of risk as well as a means of managing risk.

Adaptation of agriculture is a priority for both public and private sectors, but agriculture is only one part of the global food system. Transport infrastructure must also be climate-proofed. System resilience requires new rules to militate against export controls and may necessitate efficiency trade-offs such as increased strategic storage.

Action can be taken in three spheres including the use of big data to boost the efficiency and specificity of climate-risk information; the provision of insurance innovations that can reduce risk to small farmers who are an essential and fundamental aspect of agricultural success; and the incentivization of climate-resilient, low-carbon investments.

Increasing vulnerability to climate change and environmental degradation is leading to higher operational and reputational risks for companies and investors in the food and agriculture sector. These entities also seek to seize opportunities and adjust their business models in the context of changing food systems, population dynamics, and environmental and socio-economic pressures (e.g. investors screen their investments; companies shift their commodity sourcing strategies).

A consistent, focused advocacy narrative structured around the specific interventions that we know work is our best hope for re-energizing global investments in nutrition. Not only are nutrition-specific interventions some of the most cost-effective development investments but the nutrition sector also has a suite of ready-to-scale interventions that have proven effective in challenging, real-world settings.

3. **How might COVID-19 facilitate or complicate** the implementation of needed food systems changes?
 - a) Will it aggravate and/or reduce vulnerabilities?

As a consequence of efforts to stall the spread of the COVID-19 pandemic, disruptions to food supply chains will intensify both human suffering and the challenge of reducing hunger around the world. Experts are warning of disastrous increases in malnutrition in both the immediate and long terms as key programs to deliver food and micronutrients to vulnerable populations are interrupted. A recent analysis by the WFP found that 130 million additional people — on top of the 135 million already experiencing acute malnutrition — will face hunger in 2020 as a result of the pandemic²⁸. With all the accompanying closures and lockdowns, the COVID-19 pandemic has created logistical bottlenecks that ricochet across the long value chains of the modern global economy. Restrictions of movement, as well as basic aversion behavior by workers, may impede farmers from farming and food processors — who handle most agricultural products — from processing. Shortage of fertilizers, veterinary medicines, and other input could also affect agricultural production.

To respond to the pandemic, countries will also pull funding from nutrition programs and attention from hard-won, multisectoral efforts to curb malnutrition. People will almost certainly emerge from the crisis poorer, with a diminished ability to access nutritious foods.

Emergency response of COVID-19 outbreak also means that resources for sexual and reproductive health services may be diverted to deal with the outbreak, contributing to a rise in maternal and newborn mortality and morbidity, decreased provision of family planning services, antenatal care and therefore of information and support to nutrition support during pregnancy and after delivery.

²⁸ https://www.fsinplatform.org/sites/default/files/resources/files/GRFC_2020_ONLINE_200420.pdf

COVID-19 lockdowns are imposing substantial economic and social costs including increased gender based violence globally. According to a UNFPA analysis made in collaboration with Avenir Health, Johns Hopkins University and Victoria University, COVID-19 lockdown could contribute to 240 additional cases of intimate partner violence that is known to impact the growth and nutritional status of the children of the affected women and pregnant women and their unborn babies²⁹.

The same series of studies predict that COVID-19 may affect family planning in at least five ways: 1) clinical staff diversion to COVID activities; 2) closing or decreased provision of services; 3) women may defer to attend facilities due to infection concerns; 4) supply chain disruptions may limit product availability and 5) women may choose other short term FP methods readily available that can be used without provider interventions. According to the study, some 47 million women in LMICs are projected to be unable to use modern contraceptives if the average lockdown, or COVID-19- related disruption continues for 6 months without major disruptions to services. However, if the lockdown continues for 6 months and there are major service disruptions, additional 7 million unintended pregnancies are expected to occur.

As nutrition services are often provided at the community level — such as programs for school feeding or conditional cash transfers — quarantine restrictions and social distancing have forced organizations to suspend or adapt programs. Disruption in such services is likely to lead to increased wasting rates, while any impact on stunting will not be visible for years.

The [International Food Policy Research Institute's early projections](#) indicate that even under an effective COVID-19 containment scenario, 14 million to 22 million people could slip into extreme poverty and low- and middle-income countries could see a 25% decline in agri-food exports³⁰.

The breadth of the pandemic, affecting even the richest nations, could also strain the humanitarian system in its response efforts for vulnerable populations, with member countries of the OECD experiencing adverse economic impact from COVID-19. This could contribute to the challenges already posed to meeting Sustainable Development Goal 2 — on ending hunger — by 2030.

- b) What are the changes in design and implementation of policies affecting food systems which are necessary to prevent and better deal with food security and nutrition impacts of infectious disease outbreaks and pandemics in the future?
- The [Food and Agriculture Organization](#) urges countries to meet the immediate food needs of their vulnerable populations and boost their social protection programs.
 - Keep food supply chains flowing by, for example, not imposing measures that would restrict trade and the mobility of commodities.

²⁹ <https://www.unfpa.org/resources/impact-covid-19-pandemic-family-planning-and-ending-gender-based-violence-female-genital>

³⁰ <https://www.ifpri.org/blog/how-much-will-global-poverty-increase-because-covid-19>

- **Ensure the response to COVID-19 does not reproduce or perpetuate harmful gender norms, discriminatory practices and inequalities. All programs and responses provided should have a proper gender analysis.**
- **Ensure that high attention is given to sexual and reproductive health and rights during COVID-19, given these issues can be severely impacted during outbreaks.**
- Gain efficiencies by reducing waste and food losses, resolving logistics bottlenecks, and aiming to reduce costs related to trade. This approach will reduce uncertainty and allow producers, consumers, traders, and processors to make informed decisions and to contain unwarranted panic behavior in global food markets.
- Development and humanitarian organizations must incorporate secondary impacts such as nutrition into funding planning and emergency activities.
- Organizations need to determine how to ensure food security and nutrition are included in the response as service delivery, economies, and food systems are not disrupted worldwide.
- Prevent, to the utmost extent possible, a decline in nutrition status for the most vulnerable children, including children in fragile contexts, refugee populations and among internally displaced people contexts.
- Maintaining access to primary health care services despite mobility restrictions during the pandemic will be key to preventing an exacerbation of adverse nutrition impacts.
- Mobilize community health workers to do household-level nutritional counseling where possible.
- Closures of restaurants and less frequent grocery shopping diminish demand for fresh produce and fisheries products, affecting producers and suppliers, especially smallholder farmers, with long-term consequences for the world's increasingly urbanized population — be they in Manhattan or Manila.
- Uncertainty about food availability can induce policymakers to implement trade-restrictive measures in order to safeguard national food security. Given the experience of the 2007-2008 global food price crisis, we know that such measures can only exacerbate the situation.
- Policymakers must avoid accidentally tightening food-supply conditions. While every country faces its own challenges, collaboration — between governments and the full gamut of sectors and stakeholders — is paramount. A global problem requires a global response.
- Ensure that food markets are functioning properly and that information on prices, production, consumption, and stocks of food is available to all in real-time.
- Highlight the importance of multiple micronutrient supplements, or MMS, as a driver to improve maternal nutrition.
- Some short-term measures to stem the virus's spread could have long-term implications for nutrition. Of particular concern are the moves by some leaders to close their borders, echoing similar responses during the height of the 2008 financial crisis.
- Food distribution processes must be adapted to minimize contact and integrate health checks and sanitation stations. Important to stagger distributions and adding more locations to keep down the number of people at a site at any given time and include

information/ explaining the pandemic to recipients and offering recommendations on how they can protect themselves from infection.

- c) What of the current immediate actions we are seeing will contribute to the long-term resilience of food systems?

UNFPA is working to support governments and partners to prioritize the particular needs of women and girls of reproductive age, in line with the UNFPA transformative results to end unmet need for family planning, end preventable maternal deaths, and end gender-based violence and harmful practices by 2030. These transformative results relate in direct and indirect ways to the resilience of food systems.

There is a need to pay more attention to the role that good nutrition can play toward resilience building and further prevention.

There is a big push on cash transfers and on addressing food security. The Global Nutrition Cluster, along with UNICEF and the Global Technical Assistance Mechanism for Nutrition, has issued guidance for organizations on managing nutrition information during the pandemic³¹.

Export restrictions put in place by exporting countries to increase food availability domestically could lead to serious disruptions in the world food market, resulting in price spikes and increased price volatility as it occurred in 2007-2008.

There is an ongoing shift of mindset, strategy, and vision to tackle malnutrition considering all its forms, everywhere, and for all people, at all stages of the life course.

4. **What knowledge and data gaps need to be filled** for better analyzing current successes and failures in food systems and the trade-offs and synergies, across SDGs, in implementing food systems changes to fix these failures?

Key messages:

- **Prioritization and support are needed for research on improving nutrition and sustainable agriculture through a food systems lens, improving surveillance and evaluation of national trials and innovative practices, and expanding the global knowledge sector on scalable strategies for delivering nutrition and food security for all;**
- **Knowledge on the impact of different interventions, including behavior change communication, taxes and other incentives, institutional feeding, and restrictions on**

³¹ <https://www.nutritioncluster.net/>

advertising, among others, is needed to inform actions to address the rise of unhealthy eating and the corresponding epidemic of overweight and obesity. The rising epidemic of obesity and overweight requires new research on effective interventions;

- **Mild or intermittent food insecurity appears to increase obesity and overweight, compounding health risks for populations most vulnerable to food insecurity. Policy interventions are urgently needed to increase healthy consumption at scale; promising evidence suggests that media campaigns, better institutional feeding, taxes, or restrictions on food advertising, all warrant wider consideration.**

- There is a need for more implementation research to evaluate success and causes of failures, evaluate programs and document lessons learned.
- Data to evaluate who is affected, who's likely to be affected, and how to tailor a response to that. There is urgency to gather data about existing and future nutrition needs.
- Coordinating generation of and sharing data generated.
- During pandemics data become even more vital given that organizations work to respond to rapidly changing needs around food security. Organizations will have to use alternative forms of data collection during the pandemic, building upon systems that are already in place to be efficient.
- The nutrition sector must closely coordinate with other sectors when it comes to collection of data. The food security sector, the health sector, the WASH sector, social protection, and so on can coordinate data collection given the interlinks among these sectors.
- Innovation is required to collect data. World Vision is setting up platforms to send nutrition information to beneficiaries via text message and building the capacity of families to conduct their own assessments, such as gathering data on upper-arm circumference that is used to classify wasting.

5. What partnerships and initiatives are needed to harness synergies and/or reduce trade-offs in food systems?

As Multilateral Development Banks alone will not be enough to meet the complex humanitarian and development needs arising from the pandemic, other funders are needed to invest alongside them to meet nutrition needs.

Global markets are critical for smoothening supply and demand shocks across countries and regions. They are also important for assuring that disruptions in food supply chains are minimized as much as possible.

Public-private partnerships and investments in existing agricultural technology programs could help scale up these solutions faster to help more people manage the impacts of COVID-19.

- a) What are the most critical interventions and partnerships needed over the next 2 years, 5 years, 10 years?

Key messages:

- There is a need to provide support for social protection and humanitarian programmes aimed at ensuring food security for highly vulnerable populations, including those enduring humanitarian crises, climate or economic shocks;

Immediate actions:

Without an immediate and aggressive large-scale intervention, millions of people could be left without food and income while also having to fend off a dangerous virus. The acute phase of the epidemic requires funding of cash programs for food security in places where markets are functioning -prioritizing vulnerable groups including pregnant women, children and adolescents- crucial for preventing the intergenerational and devastating consequences of acute malnutrition. In areas where families cannot obtain what they need from markets, proposals recommend food distribution. The gravity of the crisis calls for an urgent need to scale up food distribution programs, cash transfers, and food vouchers, as well as looking at financial capitalization of small farmer groups to support food pipelines.

The world must take actions to minimize disruptions to food supply chains. Create innovative systems for delivering food and other supplies.

Short term:

- Increase assessments of the impacts of COVID-19 on agriculture and food systems and integrating COVID-19 impacts into food security early warning. The use of cutting-edge remote-sensing tools, combined with machine learning, are a promising approach to map disruptions in crop production. Data collection using cellphones and social media can be deployed at scale to monitor the global impacts of COVID-19 on farmers and consumers.
- Include nutrition in all humanitarian interventions.
- Support farmers to continue producing and marketing food and help them to adopt labor-saving practices that compensate for reduced labor availability.

Medium term:

- Accelerate the deployment of relevant agricultural technologies and digital agriculture solutions

- Support small, medium, and large agribusinesses as Agriculture SMEs are extremely vulnerable to shocks, as they have limited cash reserves and little access to risk-finance tools.
- Innovate in supply chains and markets, Digital logistics, both in rural and urban areas, can reduce the impacts of control measures related to COVID-19 on transport, aggregation, and retail systems.
- Support regional policy dialogues to help countries address food shortages. Governments need to innovate and collaborate around food security and agriculture policy to allow countries better manage their agri-food imports and export, reduce the risks of food trade bans, and ultimately ensure their populations have access to food. Investments in sanitary and phytosanitary controls and good practices in transport and food safety can build confidence in regional and global trade systems and help improve the flow of food to where it needs to go.
- Assess the impact of COVID-19 on agriculture-based livelihoods and food security using a gender lens. Women play a central role in the market as traders, producers, and health care workers, and often assume the role of caretakers in the community increasing exposure to illness and impact income earning. The development of gender-sensitive solutions to address COVID-19 will facilitate the engagement of men, women, and youths, while addressing the inherent vulnerabilities of each group as the public health response evolves.

Long term : Starting to consider longer-term effects now to better address them later. This encompasses the analysis impact of the epidemic on labor productivity, intergenerational knowledge transfer, and dependency ratios.

- Ensuring that intensification of food systems is sustainable by securing investments for primary agriculture and storage and processing infrastructure.

b) Can these be scaled up or adjusted to fit other contexts?

As there's no one-size-fits-all, each country needs to take a challenge from where they are. Any intervention should have longer-term goals embedded during the design phase and identify the best collaborators and work closely together to co-create project goals. Additionally, pilot programs that are being tried in a country need to align with government policies, plans, and strategies.

To fit to other contexts, interventions should focus on creating win-win situations, rather than being a product of one organization and set of investigators programs need to have a larger ownership. In recognizing that scaling is an active process that requires constant learning, one must ensure that the project and team are flexible and willing to adapt to feedback throughout the project's lifetime

Many pilot innovative programs are being implemented with very little consideration on how feasible it is for governments to fund the scale-up. One of the key failings of scaling up nutrition programs has been the inability to look critically at its successes or lack of success.

Scaling up interventions require that from the outset there is consideration to prepare to scale up. Some of the questions that merit careful consideration include: How will the intervention be financed after the initial project is funded? Who will implement and deliver it, and what is their incentive for doing so? How will this project integrate into existing markets? Agencies applying for money to conduct a pilot program should be required to analyze the scalability from a financial point of view.

To scale up nutrition programs presupposes to develop a national multisectoral nutrition plan having sectors working together with a common understanding of causes of malnutrition and collective outputs and outcomes. Once a multi-sectoral plan is developed, the next stage is getting resources from the external partners, increasingly the government would come on board and put more resources towards that plan.

Stakeholders working in the sector will need to “go one step further” beyond sustainability to include plans for scalability in the design and implementation of every program

A critical part of any scaling effort is to create demand before the delivery of the service. Any project that aims to scale up any improvement in a component of the food system will require the buy-in and support of local governments and implementing partners. In the case of a nutrition intervention, for example, to secure buy-in already at the planning phase, it’s vital that stakeholders understand how a nutrition intervention aligns with a government’s core policies, plans, and strategies. This makes it more likely that the government’s different departments will prioritize and fund the intervention after the pilot phase ends. It can also be helpful to identify potential “champions” — both within and outside of government — who can act as advocates.

While the success of a small-scale pilot project rarely hinges on engaging with national governments, local infrastructure, or markets, failing to do so from the get-go can create real barriers to growth.

As most nutrition and agriculture related programs tend to be donor-driven, they run the risk of drying up after the initial funding ends. To improve the scalability of programs development aid must encourage, support, and nurture governments to spend more on nutrition and create budget lines for nutrition. Aid needs to be used to build something beyond the short-term emergencies. The U.N play an important role to encourage the government, to bring coherence between the different players and to push the governments.

- c) How can private sector support investments for sustainable agriculture production and supply reduce food insecurity?

Looking to the future, most investments in primary agriculture, storage and processing sectors will have to come from producers, processors and traders. Investments by the private sector can boost private sector farmers and governments through support of agricultural development programmes that improve production and market opportunities.

Multi-sector co-development of sustainability decision tools is necessary to enable companies and finance institutions to contribute to transformation of the food and agriculture sector. Better assimilation of multi-disciplinary science into private sector decision making can enable integration of sustainability considerations into supply chain management and capital allocation strategies. Promising entry points include quantitative indicators of agro-ecological risk and resilience as well as science-based benchmarking of agriculture sector products, companies, and investments. Consistent use of collaboratively developed, evidence-based indicators and other decision tools across the food and agriculture sector can unlock sustainable investments in the food and agriculture sector at scale.

Companies operating in the food and agriculture sector should manage clusters of risks and their connections; deepen stakeholder awareness and understanding of current agricultural practices; mitigate the most influential sector risks, namely: understanding agricultural practices; regulation; and inefficient production practices; consider the application of a dynamic risk assessment approach to better prioritize risks, devise more effective risk management strategies and deploy resources more efficiently by directly identifying the risks most influential to business performance.

Agricultural producers have remarkable capacity for innovation and adaptation. With the right support, producers will help make the world's food and agriculture systems economically viable, environmentally sustainable and socially beneficial. The private sector can provide products and knowledge that help producers decide when and where to invest, and how to manage risk and protect their investments. Agribusinesses and retailers can work directly with producers to select inputs and create farm management plans that generate more output while conserving water resources and protecting soil health. They can also provide affordable access to mechanization through financing and rental services.

The finance and insurance industries fund and protect the investments that farmers make in the productivity and sustainability of their operations.

Private sector efforts are supported by the public sector with policies such as land tenure reform and infrastructure investments for transportation and communication systems.