Food security and COVID-19: Intersectional disparities and dual pandemics

Key messages
COVID-19 disease control measures contributed to an additional 320 million people experiencing food insecurity in 2020.

• The number of undernourished people across almost all low- and middle-income countries in 2020 was five times more than the greatest increase in undernourishment this century.

• The worldwide gender gap in food insecurity prevalence widened in 2020.

• Vulnerable livelihoods, and community and household level gender dynamics contribute to the food insecurity gender gap.

• To address inequalities that impact food security and nutrition outcomes decisionmakers should apply both a food systems and gender lens.

Shocks to social and economic systems because of the COVID-19 pandemic caused major disruptions to global food systems, negatively impacting food security and nutrition for hundreds of millions of people worldwide. This brief describes global food insecurity in the context of the COVID-19 pandemic and outlines associated risks, vulnerable groups, and recommendations for improvements to food security efforts. We also highlight the gendered and intersectional dimensions of food security and nutrition.

Sustainable Development Goal 2:
End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

Target 2.1: By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious, and sufficient food all year round.

Target 2.2: By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons.

Food insecurity, or lacking access to sufficient, safe, and nutritious food to meet dietary needs for a healthy life over time, has long been a critical issue for the millions of people around the world experiencing hunger and consuming poor-quality food. The importance of food insecurity is reflected in the inclusion of Zero Hunger as the second goal in the UN 2030 Agenda for Sustainable Development. The four standard dimensions of food security are: food availability, social, economic and physical access to food, food utilization and stability.\(^1,2\)

Moderate or severe global food insecurity has been slowly increasing since 2014 when the UN began using the Food Insecurity Experience Scale (FIES) as a measure for comparison across contexts. In 2019, The State of Food Security and Nutrition in the World, the annual flagship report prepared jointly by the FAO, IFAD, UNICEF, WFP and WHO, stated that more than one in four of the global population (two billion people) lacked regular access to nutritious and sufficient food or experienced hunger; one in ten were exposed to severe

FOOD SECURITY
Access to sufficient, safe and nutritious food

MODERATE FOOD INSECURITY
Uncertainty about ability to obtain food

SEVERE FOOD INSECURITY
Run out of food for a day or more
food insecurity\textsuperscript{3}. The report also cited external drivers (i.e., geopolitical conflicts and climate variability) and internal drivers (i.e., food supply chain barriers, economic slowdowns and downturns) that impact food systems and present challenges to ending food insecurity and the downstream effects of hunger and varied forms of malnutrition\textsuperscript{1,2,3}.

COVID-19 pandemic impacts on food security

Even before 2020, the world was not on track to meet the target of Zero Hunger. However, the COVID-19 pandemic has led to sharp increases in global food insecurity. In just one year, the number of people without access to adequate food rose by 320 million – an increase of nearly as much as the combined total of the five previous years. Almost one in three people in 2020 experienced moderate or severe food insecurity; and nearly 40% of that group experienced severe food insecurity. Among other factors, The State of Food Security and Nutrition in the World (2021) attributed increases in food insecurity and malnutrition to the impacts resulting from measures to control the spread of COVID-19 including food supply disruptions and loss of livelihoods and financial support\textsuperscript{1}.

What are the risks?

Food insecurity poses risks to individual, household, community, and global health and economic wellbeing over the life course\textsuperscript{4}.

Negative coping strategies and adverse effects

Household food insecurity is a “managed process” in which households faced with food shortages pivot to adopt certain behavioral strategies (i.e., food consumption and livelihood-based coping mechanisms) to manage risk of adverse outcomes\textsuperscript{5}.

Some research finds that the coping mechanisms households adopt become less “reversible” as food insecurity worsens, however other literature suggests that the degree to which households are able to cope with shocks that impact their food security is less dependent on their current state of food security than the overall degree of stress and fragility of the household in question (i.e., living in a conflict zone) as well as if less severe coping mechanisms have already been exhausted\textsuperscript{6–7}.

Food security coping strategies

Food consumption coping mechanisms: Households may adopt short-term food acquiring and eating behaviors to manage food shortages or unaffordability – including changes to diet (i.e., consuming less preferred and less expensive food), increasing the immediate food availability (i.e., borrowing food from friends and family), rationing (i.e., reducing portion sizes or number of meals per day, restricting consumption to certain family members). When used as measures to assess status, each strategy is assigned a weight to reflect the severity of the coping mechanism.

Livelihood-based coping mechanisms: Households may adopt longer-term measures in response to food insecurity related to spending, income and assets including, spending savings, borrowing money, taking on debt, selling assets, begging, restricting essential non-food expenditures (i.e., health, education) and temporarily accepting risky or exploitative work. When used as measures each strategy is categorized according to its severity i.e., stress, crisis, or emergency.

Highlights from the Gender and COVID-19 Project

Research using longitudinal data from Bangladesh found that food insecure households used coping mechanisms such as acquiring a loan or using savings to “smooth” consumption and protect against greater food insecurity; a finding echoed in research from Myanmar and the Philippines which found small scale women farmers and vendors were accruing higher levels of debt to cover business costs (seeds, fertilizer, rent).
While people may resort to more severe coping strategies for immediate survival, even food consumption coping mechanisms can have severe and long-term negative consequences for individual, household and community wellbeing that ultimately perpetuate cycles of ill-health, poverty, hunger and conflict. For example, rationing can have downstream health consequences – especially for women and children at critical life stages (e.g., early childhood development) – and increased debt is a barrier to developing economic resilience. Girls removed from school to contribute to family incomes during past pandemics have higher rates of attrition post-crisis putting them at increased risk of poverty over their lifetime.

**Adverse health outcomes**

Poor diet quality can contribute to many adverse health outcomes throughout the life course and are important risk factors in childhood disease and underdevelopment as well as diet-related non communicable diseases including cardiovascular disease and diabetes. These adverse health effects are also possible outcomes of the many forms of malnutrition: undernutrition (including wasting and stunting), micronutrient deficiencies or excess, and conditions such as being overweight and obesity. These conditions threaten important gains in maternal and child health, especially in low- and middle-income countries. They can be life threatening and they can also have long lasting, and even intergenerational, effects. For example, not only is stunting generally irrecoverable, stunted women are also more likely to give birth to children who will be stunted.

Negative health risks posed by food insecurity and hunger can also be dangerous because of the nutritional needs of different sexes at different life stages. For example, women have specific nutritional needs and people experiencing food insecurity tend to have lower intake of certain nutrients (i.e., iron and folate) that play a vital role in women’s reproductive health from contraception to pregnancy and breastfeeding.

Access to proper nutrition was made more challenging during the COVID-19 pandemic due to shocks to socio-economic systems and disruptions to food systems and essential health and nutrition services, including maternal and child health services. The shifting of healthcare workers to focus on the pandemic led to gaps in medical visits, screening and illness management services and less coverage of nutrition counseling, and infant and young child feeding programs. There were also disruptions due to fears of infection and movement restrictions.

**Disproportionate nutritional impacts in low- and middle-income countries**

Children in low- and middle-income countries are at higher risk of malnutrition. Worldwide, Africa and Asia account for more than:

- 9.3 million more children with wasting
- 2.6 million more children with stunting
- 168,000 more child deaths
- 2.1 million more cases of maternal anemia
- 2.1 million more children born to low BMI mothers
- US$29.7 billion in future productivity losses (due to excess stunting and child mortality)
- US$1.2 billion more per year needed to mitigate impacts by scaling up interventions.

**Who is most affected?**

**Regions**

Indicators reveal regional inequalities in the distribution, concentration and degree of food insecurity and hunger. Latin America and the Caribbean saw the sharpest increase in moderate or severe food insecurity from 2019 to 2020 followed by Africa and Asia. While the lowest rates of food insecurity can be found in Northern America and Europe, 2020 marked the first time since the advent of FIES data collection in 2014 that this region saw an increase in food insecurity prevalence.
Numerous factors including labor shortages have contributed to the rising food prices seen in many countries. Food price inflation presents a particular challenge in low- and middle-income countries where people tend to spend a larger proportion of their income on food than those in high-income countries\(^2\). In 2020 the number of undernourished people across almost all low- and middle-income countries was five times more than the greatest increase in undernourishment this century underlining the challenge for countries lacking in public support services and financial resources to withstand a pandemic\(^{1,21}\).

### Women

Women are important contributors to food security and food systems. They play key roles in food production, processing and trade and also serve as guardians of food security in households\(^{22}\). And yet, there is a notable gender gap in moderate and severe food insecurity which has only grown worse during the pandemic. The global gap between men and women experiencing moderate or severe food insecurity widened from 2019 (6% higher among women) to 2020 (10% higher among women)\(^1\). This trend holds true at a global level as well as in every region worldwide – food insecurity prevalence is higher among women than men. This disparity is most pronounced in Latin America and the Caribbean where prevalence gap for moderate or severe food insecurity was 30% higher among women than men in 2020 compared to 24% higher in 2019, followed by Asia (10% in 2020 compared to 4% in 2019)\(^{1}\).

Importantly, women also face intersecting constraints in relation to food insecurity where negative impacts are compounded among certain groups of women\(^1\). For example, groups among whom the gender gap in food insecurity is even wider include lower-income and less-educated persons, those out of the workforce, those suffering from ill health problems and those residing in the suburbs of large cities\(^3\).

#### How women’s livelihoods explain the food insecurity gender gap

The pandemic has illuminated pre-existing structural inequalities that impact women’s ability to earn a livelihood and access food\(^1\). Secure livelihood is a critical component of food security at the individual and household level. Women are then more vulnerable because their livelihoods tend to be more vulnerable\(^{22,23}\). More women dropped out of the workforce and saw reductions in income than men during the pandemic because of the reduced job security present in the informal sector as well as the increase in childcare demands in their homes\(^{21}\).

Agriculture, another heavily impacted sector during the COVID-19 pandemic, is the primary source of livelihood for nearly four out of five women in the least developed countries that report being economically active\(^{24}\). Women’s agricultural work in low-income countries tends to have a more direct impact on household food production through both their paid and unpaid work on family farms, whereas men’s agricultural work in food production in low-income countries tends to be more focused on cash crops.
In rural agricultural settings in low-income countries especially, women contend with barriers to stable income including gender-based barriers to land ownership, economic resources and opportunities. Moreover, due to limited access to information, services (i.e., access to finance), resources (i.e., land, fertilizers etc.) and the double burden of productive food systems work (i.e., work as producers, traders etc.) and reproductive and caretaking responsibilities, girls and women living in rural areas are likely to be more impacted by malnutrition and food insecurity.

How gender norms explain the food insecurity gender gap

Community and household level gender dynamics contribute to the gender differences in food insecurity seen at the regional and global levels. Women play a primary role in producing and providing food for their families, but this value is not always reflected in household patterns in food consumption. These patterns tend to be influenced by context specific gender norms which often put women and girls in a position to “eat last and least” both in terms of quantity and nutritional quality placing them at higher risk of food insecurity and malnutrition.

While these norms pre-date COVID-19, they were nonetheless made worse during the pandemic for several reasons. Certain countries imposed gender-based restrictions during COVID-19 that further impeded women’s movement and economic opportunities. A report published in 2020 noted that food production was made more challenging for women in Mali because the country-imposed curfews for the times when women could work in farm fields, but not for men. In Morocco if both spouses are alive, then only husbands (and not wives) were able to register for coronavirus safety net programs, and in Palestine, permits to move around were written in the name of women’s husbands.

Other vulnerable groups

Among the most vulnerable to food insecurity are those that were already exposed to, or at risk of food insecurity:

- Nutritionally vulnerable groups who are disproportionately affected by malnutrition including the elderly, women of reproductive age, adolescents and young children.

- The urban and rural poor. Poverty is a primary reason for food insecurity, resulting hunger and all forms of malnutrition around the world. The UN reports that an estimated 119 million to 124 million more people joined the global poor in 2020 including an unprecedented rise in extreme poverty.

- Food production and food systems workers, including the many millions of people working in food harvesting, production, aggregation, processing, marketing, and distribution. Even before the pandemic, many workers in this group (i.e., small scale food producers, farm laborers etc.) and their families experienced moderate and severe food insecurity. Within smallholder farmers, women, young people and indigenous populations are more disproportionately impacted by food insecurity. An estimated 1 billion people earn income from work in the very food systems that were disrupted by pandemic response measures that closed food services and led to worldwide loss of employment and income. These groups were more vulnerable to both COVID-19 exposure and livelihood disruptions.

The domestic small and medium enterprises that supply much of the food eaten in low- and middle-income countries have also been impacted by labor shortages, supply chain disruptions and increases in operational costs engendered by the pandemic contributing to challenges to food access, availability and affordability for the populations they serve.

- Migrants, refugees, and internally displaced people are another subset of the global population that have long been vulnerable to food insecurity. For refugees and internally displaced people this is often compounded by co-infections such as respiratory infections and diarrheal disease that occur at sites where they are living. The vast majority (80%) of internally displaced people and refugees are found in countries with high levels of malnutrition and food...
insecurity\cite{9,10}. Both international and internal migrants depend heavily on informal work (i.e., seasonal agricultural labor, food services etc.), a sector which can be inherently unstable and was heavily impacted by the pandemic with massive job loss and a reduction in work opportunities. In some countries such as India, job losses during the pandemic led to unexpected migrations which put strain on local food systems\cite{21}. Refugees and displaced populations also face legal limitations that may prevent them from moving freely, working, or even cultivating land making them dependent on the informal sector or humanitarian assistance for survival\cite{24}.

**What is being done?**

**Homegrown leadership**

Gender inequality, increasing food insecurity and malnutrition, and even the COVID-19 pandemic, have not stopped women and girls from engaging in collective advocacy and mutual aid to support families.

In Ghana, “market queens” and market heads provide oversight in local marketplaces, exercising influence on market functioning and specific commodities as well as the supply, distribution, cost, and quality of goods. These women ensure vendors, sellers and customers adhere to government protocols (i.e., mask regulations, social distancing etc.) during the pandemic and institute initiatives to support security in the marketplaces\cite{11}.

In Brazil, women have also exhibited leadership and formed solidarity networks to support household food security during the pandemic. In a preliminary report on results from the research “COVID-19, risk, impact and gender response” carried out by Fiocruz and partner institutions, members of the Gender and COVID-19 Project highlight work led by women in different districts of the country. In Belo Horizonte, the Vila Imperial Community Association in Cabana do Pai Tomás has partnered with local organizations to donate packed meals, staple food packages and vegetable kits multiple times per week. And in Vale do Jequitinhonha the Rural Workers Union in Chapada do Norte have expanded union support for rural workers’ welfare to include food support. With the help of local healthcare workers they mapped out economically vulnerable families and through partnerships are helping to feed 620 families with no income\cite{27}.

**What else can we do?**

Food insecurity is a global problem impacting the lives of millions in every region of the world. To enact change and apply tailored solutions, policymakers will have to consider general lessons and recommendations, as well as the challenges and opportunities specific to their country contexts.

**A food systems and gender lens**

Women are central to food systems and food security solutions, especially in low- and middle-income countries. There is also evidence that incorporating women’s empowerment in nutrition programs has positive effects on nutritional outcomes for their children\cite{28}. And although there is ample evidence of gender disparities in food systems women and girls are not always incorporated into responses. A report published in 2020 found that of 73 publicly available global reports (i.e., policy statements, guidance documents, and COVID-19 response strategies ) on COVID-19 and the hunger crisis almost half (46%) failed to mention women and girls at all making it less likely they would be targeted in response efforts\cite{11}.

The food systems that impact food security and nutrition outcomes are themselves impacted by many coexisting and interacting factors (i.e., political, environmental, economic and sociocultural drivers) making shaping program and policy responses a complex endeavor best viewed through a food systems lens\cite{1}. To address inequalities in food insecurity decisionmakers will also have to apply a gender lens by exploring and addressing the underlying mechanisms driving the disproportionate impact on women and girls.
Data driven responses
Incorporating a strong gender lens into food security work will require stakeholders to continue the ethical and safe collection and analysis of multi-level, intersectional disaggregated data. Data can shed light on subgroups of the population experiencing hunger and malnutrition – an important first step in building a platform to take action. This data can also be employed by policy makers in the planning, monitoring and evaluation phases of proposing targeted policies, investments and interventions to address the severity of food insecurity for vulnerable groups. The UN also recommends increased collaboration among the humanitarian and development data communities to determine standards for data and analysis, tackle gaps in current data collection systems and make data easy to access and interpret for decision makers.

Highlights from the Gender and COVID-19 Project
The Measuring gender responsive pandemic planning brief provides indicators that can be adapted to capture and reflect gender-related information, attributes and dimensions.

Additional recommendations
Food security is a broad topic area that encompasses a wide range of activities and actors working in food production, processing, distribution. It is also inextricably linked with economic, environmental, and social systems. As such there are many recommendations that can help reshape and reinforce food systems to make them more effective, resilient, and sustainable for improved food security and nutrition. The following recommendations focus on gender sensitive responses aimed at making food systems more inclusive and addressing needs of women and girls given their diverse roles in food systems and the disproportionate vulnerability in all dimensions of food security. To protect lives and livelihoods and nutrition of vulnerable groups at most acute risk of food insecurity during pandemics decision makers should:

- Work to reduce gender inequalities in food security and nutrition within households (i.e., who eats first).
- Provide appropriate PPE to maintain operation of nutrition programs.
- Provide more stable employment, and more supports and protections for formal and informal food systems workers during widespread crises.
- Provide or scale-up stimulus packages and provision of food and nutrition assistance through gender-responsive social protection safety nets (e.g., cash transfers linked to nutrition-based behavior change, vouchers for nutritious foods, school meal programs etc.) for vulnerable populations, as well as illiterate populations and those without bank accounts, at increased levels during crisis response.
- Support structural changes (e.g., microfinancing, access to land tenure) that will protect women’s agricultural livelihood and rights to resources critical to women food producers.
- Engage meaningfully with women as key stakeholders in food systems at all stages of response to food insecurity – from data collection and needs assessments to program design, implementation and evaluation – to improve development of needed and appropriate interventions, as well as to build on women’s resilience, and knowledge related to food systems.

References


Authors
Erica N. Rosser, Rosemary Morgan, Kate Hawkins, Heang-Lee Tan, Sara E. Davies, Valerie Mueller and Brunah Schall.

Suggested citation

Text box references

Text Box 1:

Text Box 2:

Text Box 3: