Technical Assistance to Strengthen Capabilities (TASC) Project

TRACKING DATA AND EVIDENCE ON THE INDIRECT IMPACT OF COVID-19 ON SELECTED NUTRITION OUTCOMES, INTERVENTIONS AND POLICY RESPONSES

April 2021

Π

SUBMITTED BY DAI IN ASSOCIATION WITH







About TASC

Technical Assistance to Strengthen Capabilities (TASC) is part of the broader Technical Assistance for Nutrition (TAN) Programme, funded by UK aid. TAN is a mechanism to provide technical assistance to Scaling Up Nutrition (SUN) country governments and build capacities towards advancing multisector nutrition agendas, in line with the SUN Movement principles and roadmap.

The objective of the TASC Project is to provide:

- Technical assistance to governments in the SUN Movement and to the SUN Movement Secretariat (SMS) to catalyse country efforts to scale up nutrition impact (Component 1) in 60+ SUN Movement countries.
- Technical assistance to the Foreign, Commonwealth and Development Office (FCDO) to maximise the quality and effectiveness of its nutrition-related policy and programmes, to support evidence generation and lesson learning and to develop nutrition capacity (Component 2).

TASC Partners:

- DAI
- NutritionWorks
- Development Initiatives

Contact

DAI Global UK Ltd | Registered in England and Wales No. 01858644 | **Address:** 3rd Floor Block C Westside, London Road, Apsley, HP3 9TD, United Kingdom

DAI Global Health Ltd | Registered in England and Wales No. 01858644 | Address: 3rd Floor Block C Westside, London Road, Apsley, HP3 9TD, United Kingdom

DAI Global Belgium SRL | Registered in Belgium No. 0659684132 | Address: Avenue de l'Yser 4, 1040 Brussels, Belgium

Project Director: Paula Quigley, Paula Quigley@dai.com

Project Manager: Hanna Ivascu, Hanna Ivascu@dai.com

About This Publication

This document was produced by the TASC project, to summarise new data, evidence and intelligence on the indirect impacts of COVID-19 on nutrition, as well as policy responses to address these impacts.

This document was produced through support provided by UK aid and the UK Government; however, the views expressed do not necessarily reflect the UK Government's official policies.



TASC makes all efforts to provide correct information and links to source documents; however, cannot take responsibility if links are changed or removed.

DAI

Contents

Ak	oout T	ASC		2
Сс	ontent	ts		3
Ał	brevi	ations		6
	ossar			8
In	trodu	otion		10
		ent Ove	erview	12
1	Ove	rarchin	g Synthesis	13
	1.1	The in	direct impact of COVID-19 on nutritional status (women and children)	14
	1.2	The in	direct impact of COVID-19 on breastfeeding practices	15
	1.3		direct impacts of COVID-19 on dietary practices of women, adolescents and children	15
	1.4		direct impacts of COVID-19 on availability and price of nutritious food	16
	1.5		direct impacts of COVID-19 on the delivery and coverage of services	17
	1.6	Gende	er, equity, and social inclusion (GESI)	18
2	2 Summaries of Data and Evidence		of Data and Evidence	19
	2.1	Nutritic	onal status	19
		2.1.1	Summary overview	19
		2.1.2	Most recent sources	20
		2.1.3	Sources identified in previous months by TASC	21
		2.1.4	Information collected under MQSUN+	24
	2.2	Breast	feeding practices	29
		2.2.1	Summary overview	29
		2.2.2	Most recent sources	30
			Sources identified in previous months by TASC	31
		2.2.4	Information collected under MQSUN+	36
	2.3	Diet di	versity and practices of women and children	38
			Summary overview	38
			Most recent sources	40
			Sources identified in previous months by TASC	42
			Information collected under MQSUN+	51
	2.4		bility and price of nutritious foodstuffs	52
			Summary overview	52
			Most recent sources	55
			Information collected in previous months by TASC	65
			Information collected under MQSUN+	97
	2.5		on intervention delivery and coverage	103
			Summary overview	103
			Most recent sources	106
			Information collected in previous months by TASC	107
		2.5.4	Information collected in previous months by MQSUN+	123

3 Global Policy and Related Responses

DAI

3.1	Summary overview	126
3.2	Most recent sources	128
3.3	Sources collected in previous months by TASC	130
3.4	Sources collected under MQSUN+	138
Annex	1: Key Resources and Repositories for Periodic Consultation	142
Annex 2: References of documents used by TASC		

List of tables

Table 1. Estimated additional infant deaths by country and for all LMICs because of earlyseparation and no breastfeeding among exposed newborns and infants (2020-21)
Table 2: Changes in food consumption and dietary diversity during the COVID-19 Crisis in Nepal
Table 3. The severity of the impact of COVID-19, by sector and value chain74
Table 4. Availability of food and non-food products
Table 5. Projected number of people in acute food insecurity (in millions)
Table 6: Utilisation (%) of basic MNCH care by months between 2019 and 2020 106
Table 7. Global Service Disruption in Child Nutrition Services up until late August (% of countries reporting drops in services, compared to the same time period the previous year).*
Table 8. Number of people who have received selected services under the GHRP compared tothe targets sets (by responsible organisation)
List of figures
Figure 1. Indirect impacts of COVID-19 on nutrition11
Figure 2. COVID-19 impacts on diets, average effect for world (Percentage change in average global household consumption by product)
Figure 3. Trends in food insecurity and poor maternal dietary diversity from June to October 2020 in urban and peri-urban Yangon
Figure 4: Number of meals skipped in the past week, in children and adults. (Source: Innovations for Poverty Action (IPA), 2021)
Figure 5: Retail and Wholesale Food Price Index in India pre- and post-lockdown
Figure 6: Smaller cities have seen steeper than average increase in retail food prices
Figure 7: Access by households to medical services in Nigeria (January 2021)67
Figure 8. Current and projected acute malnutrition77
Figure 9. Number of days adults and children skipped a meal last week (January 18, 2021)79
Figure 10. Proportions of different coping strategies adopted by the urban and rural households
Figure 11. Number of countries implementing adaptations
Figure 12. Food insecurity and food gap of poor households living in chronically food insecure



Figure 13. Results trend for four health and nutrition pillar indicators throughout the 8 months of
COVID-19 pandemic (Numbers are from the beginning of the pandemic and should be read as
in addition to UNICEF's regular programming)
Figure 14. Percentage of respondents reporting experiencing burdens and any received
government assistance (Responding to COVID-19 in Africa: Using Data to Find a Balance,
2020)



Abbreviations

ANC	Antenatal Care
BMI	Body Mass Index
BMS	Breastmilk substitutes
CATI	Computer-assisted telephone interview
CFR	Case Fatality Rate
CHW	Community Health Worker
CMAM	Community-based Management of Acute Malnutrition
CPI	Consumer Price Index
COVID-19	Corona Virus Disease of 2019
DAI	Development Alternatives, Inc.
DHS	Demographic and Household Survey
ELCSA	Latin American and Caribbean Food Security Scale
FAO	Food and Agriculture Organisation of the United Nations
FCDO	Foreign, Commonwealth and Development Office
FCS	Food Consumption Score
FEWS NET	Famine Early Systems Warning Network
FIES	Food Insecurity Experience Scale
FOLU	Food and Land Use Coalition
GESI	Gender, Equity and Social Inclusion
GIEWS	Global Information and Early Warning System
GHRP	Global Humanitarian Response Plan
HDD	Household dietary diversity
HFI	Household food insecurity
HFS	Household food security
IDA	International Development Association
IFAD	International Fund for Agricultural Development
IFN	Investment Framework for Nutrition
IFPRI	International Food Policy Research Institute
IOM	International Office of Migration
IMF	International Monetary Fund
IPC	Integrated Food Security Phase Classification
	Infant and Young Child Feeding
IYCF-E	Infant and Young Child Feeding in Emergencies
LIST	Lives Saved Tool
LMIC	Low and Middle-Income Countries
MAM	Moderate Acute Malnutrition
MAMI	Management of At-Risk Mothers and Infants under 6 Months
MENA	Middle East and North Africa
MIS MIYCN	Malaria Indicator Survey
	Maternal, Infant and Young Child Nutrition
MNCH	Maternal, Neonatal and Child Health
MQSUN (+)	Maximising the Quality of Scaling Up Nutrition (Plus)
MUAC	Mid-Upper Arm Circumference
NCD	Non-communicable Diseases
NGO	Non-Governmental Organisation
OCHA	(United Nations) Office for the Coordination of Humanitarian Affairs
PERC	Partnership for Evidence-Based Response to COVID-19



PSNP	Productive Safety Net Programme
RUTF	Ready to Use Therapeutic Food
SADC	Southern African Development Community
SAM	Severe Acute Malnutrition
SARS-CoV-2	Severe acute respiratory syndrome coronavirus 2
SBC(C)	Social Behaviour Change (Communication)
SDG	Sustainable Development Goals
SME	Small and Medium Enterprise
SMS	SUN Movement Secretariat
SPA	Surveys Provision Assessments
SPEC	Social, political, economic and cultural
SSA	Sub-Saharan Africa
SUN	Scaling up Nutrition
TAN	Technical Assistance for Nutrition
TASC	Technical Assistance to Strengthen Capabilities
Tech RRT	Technical Rapid Response Team
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Fund
UNRWA	United Nations Relief and Works Agency
WASH	Water, Sanitation and Hygiene
WFP	World Food Programme
WHO	World Health Organization



Glossary¹

Malnutrition	Includes undernutrition (wasting, stunting, underweight), inadequate vitamins or minerals, overweight, obesity, and resulting diet-related noncommunicable diseases.
Micronutrient-related malnutrition	Includes micronutrient deficiencies (a lack of important vitamins and minerals in the diet) or micronutrient excess.
Overweight and obesity	A person is too heavy for his or her height. Body mass index (BMI) is an index of weight-for-height commonly used to classify overweight and obesity. It is defined as a person's weight in kilograms divided by the square of his/her height in meters (kg/m ²). In adults, overweight is defined as a BMI of 25 or more, whereas obesity is a BMI of 30 or more. Definitions for overweight and obesity differ for children under 5 years and for children and adolescents age 5- 19 years but are based on the same premise that a child or adolescent is too heavy for his or her age-related height.
Severe Acute Malnutrition (SAM)	Severe acute malnutrition is when a person is extremely thin and at risk of dying. They need immediate treatment. The response to acute malnutrition is broad and includes several elements such as medical, food, water and hygiene, and social services.
Stunting	Stunting refers to a child who is too short for his or her age (low height-for-age). Stunting is the result of chronic or recurrent undernutrition, usually associated with poor socioeconomic conditions, poor maternal health and nutrition, frequent illness, and/or inappropriate infant and young child feeding and care in early life.
Undernutrition	Includes wasting (low weight-for-height), stunting (low height-for-age) and underweight (low weight-for-age).
Underweight	Low weight-for-age. A child who is underweight can be stunted, wasted, or both.
Vertical transmission through breastfeeding	This relates to risks of transmission of COVID-19 from an infected mother to her baby through direct breastfeeding.
Wasting	Wasting refers to a child who is too thin for his or her height (Low weight-for- height). Wasting is the result of recent rapid weight loss or the failure to gain weight. Usually indicates recent and severe weight loss, because a person has not had enough food to eat and/or they have had an infectious disease, such as diarrhoea, which has caused them to lose weight. Wasting is also known as acute malnutrition.

¹ Sources: (Fact sheets—Malnutrition. (n.d.). Retrieved December 15, 2020 <u>https://www.who.int/news-room/fact-sheets/detail/malnutrition</u>; Malnutrition: Emergencies and disasters. (n.d.). Retrieved December 15, 2020, from <u>https://www.who.int/news-room/g-a-detail/malnutrition-emergencies-and-disasters</u>; Obesity and overweight. (n.d.). Retrieved December 15, 2020, from <u>https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight</u>; Breastfeeding and COVID-19 23, June 2020; Years Lived with Disability, retrieved February 18, 2021 from WHO | DALYs / YLDs definition.

DAI

Years Lived with Disability	Years lived with disability is a component of Disability Adjusted Life Years, known as "DALYs" which is the sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability.
Case Fatality Rate	The proportion of persons with a particular condition (e.g., patients) who die from that condition. The denominator is the number of persons with the condition; the numerator is the number of cause-specific deaths among those persons.

Introduction

The COVID-19 pandemic can impact nutrition through multiple routes with implications for maternal and child morbidity and mortality. Indirect impacts² on nutrition are driven by a range of intermediate factors, such as: (1) deterioration in nutritional status; (2) disruptions to breastfeeding practices as well as inadequate infant and young child feeding and care practices; (3) disruptions to essential health and nutrition services; (4) reduced access to livelihoods, employment and incomes; (5) deterioration in dietary practices; and (6) reduced availability and/or increased prices of nutritious foodstuffs (see figure 1).

Poor nutrition outcomes can jeopardise investments in areas such as health and education, with serious long-term implications for a country's economic development. COVID-19 related impacts on nutrition create a strain on country service delivery systems at a time where there are many competing challenges. Countries will therefore need support to understand the impacts of COVID-19 on nutrition and to determine the best courses of action to mitigate these.

Accurate and up-to-date data and information is essential in identifying and prioritising the support required. However, there is still limited real-time data and evidence available to monitor these impacts on nutrition services, relevant dietary practices or on nutritional status. This makes it challenging to understand the full extent of the impact of COVID-19 on nutrition and what is being done to address this through policy and programming.

As such, this evidence tracker identifies and summarises, on a monthly basis, the emerging data and evidence to improve the understanding of how COVID-19 is indirectly affecting nutrition in Low and Middle-Income Countries (LMICs) and of the global and national responses employed to address this impact.

Objective and Scope

The evidence tracker identifies and summarises data and evidence made available since August 2020 relating to the indirect impacts of COVID-19 on nutrition and policy responses, including:

- Data to monitor the indirect impact of COVID-19 on nutrition in LMICs.
- Key evidence being published on the impact of COVID-19 on nutrition in LMICs.
- Information on policy responses to address the impact of COVID-19 on nutrition.

The evidence tracker only summarises data which are original to the source described.

The tracker is guided by the framework designed by PATH when they established the COVID-19 tracker under the MQSUN+ project (see figure 1). Based on the UNICEF conceptual framework, this framework considers how COVID-19 and the measures to contain its spread can indirectly impact nutrition outcomes. In line with this framework, and the global nutrition priorities of the Foreign, Commonwealth and Development Office (FCDO), the evidence tracker zooms in on the following five key areas:

- 1. Nutrition intervention delivery and coverage
- 2. The availability and price of nutritious foodstuffs
- 3. Dietary diversity and dietary practices particularly among women and children
- 4. Breastfeeding practices
- Nutritional status (specifically undernutrition, but overnutrition may also be included where evidence is specific to LMICs)

² Direct impacts of COVID-19 are those such as cases of and deaths from the virus directly. Indirect impacts are the downstream effects of COVID-19 and of the measures installed to contain the virus.

Figure 1. Indirect impacts of COVID-19 on nutrition



Source: MQSUN+. Synthesis of evidence regarding indirect impacts of COVID-19 on nutrition.

COVID-19



Methodology

This core document, which includes the most recent data and source descriptions and an overarching synthesis, is updated monthly. It is accompanied by an email which highlights some of the most recent evidence (made available during the previous month).

To ensure continuity with the earlier work carried out by MQSUN+, TASC has built on the established approach, that is based on the following key steps:

- 1. Monthly updating of principal information sources, including data, evidence and COVID-19 information hubs, and organisational websites with a strong nutrition focus.
- 2. Searching for new data, evidence and other information in the above sources; reviewing documents and newly identified sources for forward and backward citation.
- 3. Based on set criteria, screening documents and data sources for inclusion into Zotero referencing software. Inclusion and exclusion criteria are described in the process document and relate predominantly to the timing of publication, the quality of the data, and the five key areas listed above and their relevance for LMICs. Inclusion and exclusion criteria are defined in the relevant process document.
- Assessing the quality of the available data, reflecting on data provenance, coverage and timeliness; where necessary, carrying out fact-checking to ensure that the data is original to the source summarised.
- 5. Drafting source descriptions, with a focus on summarising the new evidence and data identified by the specific sources.
- 6. Updating the monthly tracker, including the synthesis.
- 7. Developing the Monthly Update, which contains selected findings from the data and evidence collected over the last month.

Document Overview

This document includes an overarching synthesis, containing findings collected since August 2020. This is followed by a source description of relevant information collected over time, organised chronologically according to the key area.

The document contains summaries developed by both TASC (since beginning of October 2020) and MQSUN+ (from August to 21 October 2020) which are updated monthly, in order to stay in tune with new evidence. The April 2021 version adds descriptions of new data and information sources made available in March 2021.



1 Overarching Synthesis (December 2020 – March 2021)

This section synthesises findings from the most recent sources. In contrast to the previous edition, most sections in this edition of the synthesis have been adapted to allow a focus on the evidence collected by TASC since January 2021. However, where relevant, findings from sources collected in 2020 have also been maintained. Sources added in this month's edition are highlighted in yellow.

Overview of new information considered in this edition of the synthesis

- <u>Impact on nutrition status</u>: No new data identified, although reference is made to potential new nationwide surveys.
- <u>Impact on breastfeeding practices</u>: No new data identified, but some information on the potential role of human milk banks during the pandemic in South Asia is available.
- <u>Impact on diets</u>: Includes new information on diet quality in Nepal and a discussion about the methodology on how to collect data on diets during the pandemic.
- <u>Impact on availability and price of nutritious food</u>: Includes a wide variety of new data related to the continuous increase of food prices and potential food security issues.
- <u>Impact on coverage of services</u>: Some new data identified related to the utilisation of basic maternal, neonatal and child health (MNCH) care services in some countries.
- <u>Gender, equity, and social inclusion (GESI)</u>: Contains some new data, especially related to the impact of COVID-19 on women and in countries affected by conflict.

For each key area, this section reflects on what is known about the impact of COVID-19 on nutrition, what the evidence gaps are, and how international and national policies are attempting to address these impacts on nutrition.

Key findings (December 2020–March 2021)

- Impact on nutrition status: Nationwide anthropometric and biomarker data were scarcely collected during 2020, mainly because most national representative surveys have been postponed and health monitoring systems were disrupted. *Standing Together for Nutrition* estimates that by the end of 2022, COVID-19 could result in an additional 9.3 million wasted and 2.6 million stunted children. Some countries are planning to (re)launch national health surveys in 2021, which will have the potential to shed light on the impacts of COVID-19 on health-seeking behaviour and malnutrition.
- Impact on breastfeeding practices: Information on the impact of COVID-19 on breastfeeding
 practices remains scarce, but some studies have indicated potential discontinuation to
 breastfeeding. Recent evidence highlights that many countries issued conflicting guidance related to
 breastfeeding. <u>A model published in the Lancet</u> estimates that deaths among infants in LMICs
 affected by a policy of mother-infant separation and non-breastfeeding would be at least 67 times
 greater than mortality potentially attributable to COVID-19.
- Impact on diets: Data relating to the impact of COVID-19 on dietary practices of women, adolescents and children are extremely limited. For most countries, information on dietary practices is only available at household level. Evidence suggests that household dietary practices have worsened during the pandemic, as food system disruptions due to COVID-19 have contributed to the reduced ability of poor households to afford a healthy diet.
- Impact on availability and price of nutritious food: Global food prices have been rising over the last year, while household incomes of the poor decreased. An increasing number of vulnerable households in LMIC were forced to cut down on the quantity and quality of their food consumption. The COVID-19 pandemic and measures put in place to curb the spread of the virus has also been an important driver of high levels of acute food insecurity. This applies especially in regions where overall food security was already a concern due to conflicts or natural hazards, with the most vulnerable being disproportionally affected.
- **Impact on coverage of services:** With little real-time data available, the true impacts of reduced service delivery on the nutrition status of children are still unclear. However, monitoring data suggest



reductions in utilisation of basic health services. As the pandemic continues, programme adaptions are being applied and alternative solutions introduced, particularly for the treatment of acute malnutrition and the provision of school meals.

• Gender, equity, and social inclusion (GESI): Women have been affected disproportionally by the COVID-19 pandemic and related restrictions. This is resulting in increased food insecurity, a surge in unpaid work and loss of livelihoods, putting affordable, healthy diets out of reach for many. Lockdowns had often negative effects on women's mental health, decision-making power and intrahousehold violence.

1.1 The indirect impact of COVID-19 on nutritional status (women and children)

There is still limited quantitative information on the impact of COVID-19 on nutritional status of women and children in 2020, but some countries intend to start collecting data later in 2021. Nationwide anthropometric and biomarker data were scarcely collected during 2020, mainly because most nationally representative surveys planned for 2020 were postponed, and health monitoring systems disrupted (GFF, 2020; DHS, 2020). However, the demand for high quality data persists, and the Demographic and Health Survey (DHS) programme reported in March 2021 that countries may be planning to (re)launch DHS, Malaria Indicator Surveys, or Service Provision Assessments. To support this process, the DHS programme has developed a guideline with practical information on how to resume survey operations while protecting staff and respondents, as well as ensuring that national survey implementation does not accelerate COVID-19 transmission. While it will not be possible to collect biomarker data in all countries, the DHS programme considers adding some answer categories to standard questions to allow for COVID-19-related responses (including fear of visiting a health facility due to concern about COVID-19). It is anticipated that these national representative surveys will shed some light on the impacts of COVID-19 on health seeking behaviour, domestic violence, under-nutrition, and mortality (DHS, 2021). Updates are not yet available on which countries will launch these surveys in 2021 (DHS, 2020a).

In the absence of such nationally representative data, researchers have tried to estimate how COVID-19 and the measures to contain its spread are impacting on the nutritional status of women and children. The most comprehensive exercise was carried out by *Standing Together for Nutrition*. Using three modelling tools, they estimated that by the end of 2022, COVID-19 could result in an additional 9.3 million wasted and 2.6 million stunted children. The model also predicts 168,000 additional child-deaths, 2.1 million maternal anaemia cases, and 2.1 million children born to underweight women (under the moderate assumption scenario). Excess stunting and child mortality could lead to US\$ 29.7 billion future productivity losses (Osendarp et al., 2021, article under review).

Measures to curb the COVID-19 pandemic and resulting changes in food consumption and physical activity patterns may also further increase overweight. For example, some households in the Middle East and North Africa (MENA) region increased their food consumption during the COVID-19 lockdowns in 2020, leading to increased weight gain <u>(Ismail et al., 2020)</u>. However, this is not the case in all countries. An online survey conducted in August 2020 in India saw a marginal improvement in healthy eating in terms of increased frequency of fruit and vegetable intake and consumption of pulses, egg or meat, while the intake of unhealthy food items declined <u>(Chopra et al., 2020)</u>.

For some countries, early warning systems and humanitarian briefs highlight the risk of an increase in acute malnutrition due to sustained food consumption gaps since April 2020 (Uganda FEWS NET, 2021; Somalia IPC, Feb 2021). However, it was not possible to calculate the extent to which the estimates relating to food insecurity and acute malnutrition can be attributed to COVID-19. In addition, data collection on acute malnutrition during the pandemic remains complicated and fragmented. Starting July 2020, guidelines by UNICEF and partners are supporting the implementation of nutrition surveillance and monitoring and resumption of population-level surveys in humanitarian contexts.

Changes in nutritional status profiles also have an impact on severity of diseases. Early evidence indicates that individuals with obesity are at a higher risk of becoming seriously ill with COVID-19 (<u>Popkin et al., 2020</u>). In ten LMICs, population-level malnutrition may be a driving factor in increasing country risk

of severe or fatal COVID-19. This is suggested by the coexistence of a high burden of malnutrition and elevated mortality among COVID-19 cases (Mertens et al., 2021).

1.2 The indirect impact of COVID-19 on breastfeeding practices

Early in the pandemic, concerns were raised about whether mothers with COVID-19 can transmit the virus to their child through breastfeeding. The World Health Organization (WHO) emphasised that existing data were insufficient to conclude the existence of vertical transmission of COVID-19 through breastfeeding. The risk of COVID-19 infection in infants is low, and infection is most often mild or asymptomatic. Consequences of not breastfeeding and separation of mother and child can be significant, however (WHO, 2020a).

While information on the impact of COVID-19 on breastfeeding practices remains scarce, various studies published in 2020 warned of potential disruptions to breastfeeding. These are linked to reduced access to prenatal, delivery and postnatal care; misconceptions on the risk of the transmission of COVID-19 from mother to child through breastfeeding; increased financial and time constraints on caregivers; and the marketing of breast milk substitutes (BMS) (Ashish, 2020; Dodgson, 2020; Tulleken et al., 2020).

In a recent Lancet article, <u>Rollins et al. (2021)</u> balance the risks associated with viral infection against child survival, lifelong health and development, and maternal health. The survival benefits of breastfeeding outweigh the very low reported death rates among infants with COVID-19. If mothers with confirmed COVID-19 infection are recommended to separate from their newborn babies and avoid or stop breastfeeding, additional deaths among infants could well range between 188,000 and 273,000. The model estimates that deaths among infants affected by a policy of separation and non-breastfeeding would be at least 67 times greater than mortality potentially attributable to COVID-19. The paper concludes that the state of evidence and balance of risk estimates support mother-infant close contact and breastfeeding by mothers with confirmed COVID-19 infection, while still implementing infection prevention and control measures.

Recent evidence highlights that many countries have issued conflicting guidance related to breastfeeding. Early in the pandemic, scientific briefs and guidelines were developed by <u>WHO</u> and <u>UNICEF</u> on promotion of breastfeeding for mothers with suspected or confirmed COVID-19. However, country-level guidance was not always aligned with these new guidelines. A review of guidance notes in 33 countries that was published in December 2020, revealed that recommendations against practices supportive of breastfeeding were common, even in countries with high infant mortality rates. None of the countries included in this review had adopted all aspects of the WHO guidance (Ho ang et al., 2020).

Limited information was encountered on policy responses relating to breastfeeding practices. However, <u>Olonan-Jusi et al.</u> (2021) stress that the WHO recommendations on infant feeding in the context of COVID-19 uphold standing recommendations for breastfeeding, non-separation, and skin-to-skin contact, including the use of donor human milk when a mother's own milk is not available. In December 2020, 35 functioning human milk banks were operating in five South East Asian countries. The authors recommend the integration and clear definition of the role of human milk banks in the clinical management of the COVID-19 related guidelines for newborn care, as a prerequisite for full alignment with the WHO recommendations (Olonan-Jusi et al., 2021).

1.3 The indirect impacts of COVID-19 on dietary practices of women, adolescents, and children

Data relating to the impact of COVID-19 on the dietary practices of women, adolescents and children are extremely limited. It is known that COVID-19 had a distinct negative impact on the dietary diversity of urban mothers in Myanmar (<u>D. Headey et al., 2020</u>). But for most other countries, information on dietary practices during the pandemic is only available at household level.

Increasing levels of poverty as a result of COVID-19 may result in a deterioration of dietary practices at household level. Simulations suggest that almost 150 million people could have fallen into extreme poverty and food insecurity in 2020 as a result of the impacts of COVID-19. The pandemic likely has led to substantial changes in patterns of food consumption, with adverse nutritional consequences. Consumers may have shifted their food purchases, buying fewer nutrient-dense (and more expensive)

products such as fruits and vegetables, meat and dairy products, and more calorie-rich and cheaper cereals and processed foods (Laborde Debuquet et al., 2020). A literature review based on articles published in 2020 also indicates that food system disruptions due to COVID-19 have contributed to the reduced ability of poor households to afford a healthy diet (Carducci et al., 2021).

Phone surveys carried out in various LMICs in 2020 revealed a reduced diet diversity of households since the onset of the pandemic (WFP. 2021b; Kansiime et al., 2021).³ An increasing number of households are relying on less preferred food (60 Decibels, 2021; The World Bank, 2021e). While COVID-19 continues to affect the diet diversity of children and households negatively in Nepal, this impact reduced between April and December 2020 (WFP, 2021b). However, it remains complicated to assess the exact extent of how the pandemic impacts diets. Social distancing and travel restrictions often only allow for phone or online surveys, which have limitations when recalling eating practices. In addition, sampling methods used for phone surveys are likely to be biased to those who own phones, while this method often does not allow for the identification of causal links between the pandemic and dietary quality. Researchers have been exploring other options on how to better implement phone surveys and assess dietary quality of women, including self-administered questionnaires by women attending health services (Agampodi et al. 2021; Strahan, 2021).

Little evidence or data have become available during the first quarter of 2021 on policy responses related to dietary practices. However, the importance of an adequate diet during the pandemic has been stressed through nutrition counselling and behaviour change communication campaigns associated with social protection or health programmes (see below). Standing Together for Nutrition stresses the importance of ensuring access to nutritious, safe and affordable diets, and nutrition-related health and social protection services (Osendarp et al., 2021).

1.4 The indirect impacts of COVID-19 on availability and price of nutritious food

In many LMICs, COVID-19 containment measures have disrupted the supply of agro-food products, greatly affecting smallholder farmers and vulnerable rural populations. Farmers face difficulties in accessing necessary inputs, resources and services, due to breaks or delays in the supply chain (FAO, 2021d; Boughton et al., 2021). Negative impacts on the operations of micro and medium-sized enterprises have been observed, mainly for those working in crop farming, processing, retail, and catering and food service sectors. This was particularly the case for perishable or high nutritive value foods, for which the value chains tend to be more vulnerable to disruptions (Nordhagen et al., 2021).

Food prices increased in 2020 and remained high in early 2021. The World Bank estimates that global food prices rose by almost 20% between January 2020 and January 2021 (<u>World Bank, 2021a</u>). Price monitoring in LMICs revealed similar findings, and in several countries the effects of stagnant production, limited imports, and reduced demand translated into increased domestic prices of staple foods (FAO, 2021b). Prices for some food commodities are projected to increase further in coming months, which particularly threatens the food security of vulnerable households already affected by COVID-19 (FAO and WFP. 2021; World Bank, 2021c; Nordhagen et al., 2021).

Higher retail prices in combination with reduced incomes have forced an increasing number of households to cut down on the quantity and quality of foods consumed. Rising food prices have a greater impact on people in LMICs as they spend a larger share of their income on food than people in high-income countries (World Bank, 2021a). Increases in food costs have affected household food consumption since early on in the pandemic, as was already observed between April and June 2020 (WFP, 2020; Egger et al., 2021). Data collected in LMICs during the last quarter of 2020 and early 2021 suggest that households may continue to decrease their food consumption as a result of the pandemic (60 Decibels, 2021; World Bank High Frequency Surveys, 2021; IPA, 2021; WFP, 2021a)

The COVID-19 pandemic and measures put in place to curb the spread of the virus have been an important driver of high levels of acute food insecurity. Studies and models indicate that the pandemic has led to rising poverty levels, with the most vulnerable disproportionally affected, putting them at increased risk of food insecurity (IPC, 2021; World Bank, 2021b; Kansiime et al., 2021; Béné et al.,

³ Similar findings were highlighted in earlier version of this tracker including in Abate et al., 2020; Josephson et al., 2020; Pakravan-Charvadech et al., 2020; Kundu et al., 2020; Tamru et al., 2020; Harris et al., 2020; Swinnen & McDermott, 2020).

<u>2021</u>; <u>Laborde Debuquet et al., 2020</u>). The March 2021 snapshot of acute food insecurity indicates that around 45 million people in sub-Saharan Africa were facing high levels of acute food insecurity, predominantly driven by the COVID-19 pandemic and associated measures (IPC, 2021).

Urban households have been greatly affected. A recent review indicates that the dimension of food security most affected by COVID-19 in LMICs is accessibility, because of disruptions in financial and physical access to food, especially in urban areas (<u>Béné et al., 2021</u>). A number of country studies demonstrate that a larger proportion of households in urban areas have been affected by reduced income and food consumption due to COVID-19 compared to those in rural areas (<u>World Bank, 2021</u>; <u>Headey et al., 2020</u>; <u>FEWS NET, 2021</u>). It is noteworthy that in India, smaller cities registered sharper retail price increases since the lockdown compared to larger cities (Narayan and Saha, 2021).

1.5 The indirect impacts of COVID-19 on the delivery and coverage of services

With little real-time data available, the true impacts of the pandemic on reduced service delivery on the nutrition status of children are still unclear. Early efforts to monitor impacts on programming indicate that the pandemic may have affected the delivery and coverage of nutrition-related services and interventions (WHO. 2020c; UNICEF. 2020; GFF. 2020; Africa CDC. 2020). In Bangladesh, Nigeria and South Africa, a shift of policy focus away from essential healthcare services has reduced the uptake of MNCH services between April and May 2020 (Ahmed et al., 2021).

Information on service delivery in the second half of 2020 and early 2021 is rather anecdotal. For some countries, the <u>World Bank High Frequency Monitoring</u> provides information on utilisation of health services. In Nigeria, for example, about 88% of households who needed child health services were able to access them in January 2021 (World Bank 2021c). In Mongolia, on the other hand, 30% of households could not receive medical attention when needed in December 2020 due to COVID-19 restrictions (more specifically, the "stay at home orders") (World Bank. 2021e). UNICEF anticipated updating its dashboard on service delivery in March 2021, but the updates have not been released so far. Results from the second round of the WHO pulse study (January-March 2021), which tracks the extent of disruptions to essential health services in the context of the COVID-19 pandemic, are expected end of April 2021.

The World Food Programme reports regularly on the number of children missing out on school meals.⁴ The latest estimates suggest that fewer children are missing out, as more countries have begun to reopen schools. As of end of April 2021, WFP estimates the number of children missing out on school meals at 234 million globally, compared to 267 million in February 2021 (WFP, 2021c). During 2020, an estimated 39 billion school meals were missed globally as a result of school closures (Borkowski et al., 2021). An increasing number of countries have, however, found alternative solutions to providing schoolchildren with meals, even when schools are closed (WFP, 2021c).

Several countries introduced adaptations to ensure the continued screening and treatment of acute malnutrition.⁴ These include the introduction of the mid-upper arm circumference (MUAC) measurement by caregivers, modified admission criteria, and adapted implementation and treatment monitoring modalities (Rana et al., 2020; Rahimov & Mustaphi, 2020). Various adaptations are continuously being shared in the resource library on <u>The State of Acute Malnutrition Website</u> which is supported by various organisations. Concerns have been raised around such adaptations to the protocols, such as reduced frequency of appointments which introduces the potential to miss detection of deterioration of a child's health during the extended period between appointments (<u>Wrabel, 2021</u>).

Studies and policy briefs have highlighted the value of having a well-functioning social protection programme in place prior to a pandemic.⁴ Such programmes protect the food security and dietary quality of poor households (Abay et al., 2020; Osendarp et al., 2021; Swinnen & McDermott, 2020), and can provide ready-made delivery channels for distribution of fortified staple foods to address nutrient gaps (The Food Fortification Network, 2020; Heidkamp et al., 2021). Experiences from Ethiopia indicate that the participation of poor households in the Productive Safety Net Programme (PSNP) played a key role in protecting their food security (Abay et al., 2020).

⁴ The most recent information described in this paragraph was collected in the previous edition (March 2021).



The COVID-19 pandemic has slowed efforts towards achieving the Sustainable Development Goals and plans in the UN Decade of Action in Nutrition, necessitating action to address the unfinished undernutrition agenda. Multisector strategies should target populations during the first 1,000 days of life to effectively reduce undernutrition at scale. There is potential for targeted policies to address multiple forms of malnutrition through: mitigation of economic effects related to the COVID-19 pandemic on low-income households; limitation of market promotion of unhealthy foods and breastmilk substitutes; and support to local producers of nutritious foods. In addition, (scaling up of) food fortification can be a highly cost-effective intervention, yielding an estimated US\$27 in economic return per US\$1 spent (Heidkamp at al.,2021).

1.6 Gender, equity, and social inclusion (GESI)

Evidence from 2020 and 2021 indicates that women have been disproportionately affected by COVID-19 related restrictions. This has resulted in increased food insecurity (<u>60 Decibels, 2021</u>), a surge in unpaid work (Fernandes, 2020), and loss of livelihoods, especially for those working in the informal sector (Jacob et al., 2020). These factors are putting affordable healthy diets out of reach for many. In terms of intra-household food allocation, women and children were found to suffer most (Singh et al., 2020). The dietary diversity of urban women in Myanmar decreased dramatically, increasing the risk of micronutrient deficiencies (Headey et al., 2020a). Women experienced a greater decrease in food consumption as a result of the pandemic, compared to men (<u>60 Decibels, 2021</u>). In Africa, food insecurity increased more in female-headed households than male-headed households (Josephson et al., 2020; WFP, 2020e). While clear improvements were seen on food security impacts between July-December 2020, and despite a reduction in economic stress, women in Bangladesh reported increased depression, reduced decision-making power, and more violent or abusive behaviour from their husbands during the lockdowns (IPE, 2021). This is an important finding, also as maternal depressive symptoms are negatively associated with child growth and development (Nguyen et al., 2017). Utilisation of basic MNCH services in some countries has also decreased during the pandemic (Ahmed et al., 2021).

Policy reports and briefs highlight difficulties in accessing health services, especially for women, children and other vulnerable groups; while previous work on protecting and empowering women and girls has been disrupted (Inter-Sector Coordination Group et al., 2020; UNICEF, 2020; CHRP, 2021). Heidkamp et al. (2021) stress that even more than ever, due to the impacts of the pandemic, multisector strategies should target populations during the first 1,000 days of life to effectively reduce undernutrition (Heidkamp et al., 2021).

The pandemic has jeopardised the diet quality and food security of vulnerable and poor households.⁵ They have been particularly affected by food price increases, leading to decreased food consumption and diet diversity (Ahmed et al., 2021; IPA, 2021).⁶

Countries affected by conflict are at greatest risk of food insecurity in the coming months (World Bank, 2021a; IPC. 2021). Children in conflict-affected countries are particularly hit by wasting, although this is not attributable to COVID-19 only. Data estimations indicate that rates of extreme hunger and starvation of children and their families might be particularly concerning in countries facing severe food crises, exacerbated by COVID-19, conflict and climate change. This is the case for Afghanistan, Yemen, South Sudan, the Democratic Republic of Congo, Sahel countries and Somalia (Save the Children, 2020; UNICEF, 2020; WFP, 2021; IPC Somalia, 2021). In March 2021, an estimated 33 million people were in need of humanitarian assistance in East Africa alone. This is mainly in Ethiopia, South Sudan and Sudan, where conflicts and climate-related shocks are critical factors underpinning the high levels of severe food insecurity, which are exacerbated by the effects of the COVID-19 pandemic (FAO, 2021).

⁵ Most information on this topic was collected in 2020, and has been confirmed through the review of a new source (Ahmet et al., 2021).

⁶ This was already identified in earlier studies from 2020, including Singh et al., 2020; Pakravan-Charvadeh et al., 2020; Kunda et al., 2020; Headey et al., 2020; Diao et al., 2020; Adewopo et al., 2020; Das et al., 2020).

2 Summaries of Data and Evidence

This chapter summarises new data and evidence relating to the indirect impacts of COVID-19 on nutrition in LMICs. It focuses specifically on selected outcomes and outputs, including nutritional status (stunting, wasting, overnutrition and micronutrient deficiencies); breastfeeding practices; dietary diversity and dietary practices – particularly among women, adolescents and children; the availability and price of nutritious foodstuffs; and nutrition intervention delivery and coverage.

Under each topic, the summaries are organised in chronological order, and include summaries compiled by the COVID-19 tracker since August 2020. The most recent sources, covering publications from March 2021, are highlighted in yellow.

2.1 Nutritional status

2.1.1 Summary overview

This section includes source descriptions of the data and evidence identified on the indirect impact of COVID-19 on nutritional status (undernutrition, overweight and obesity). The source descriptions are organised in chronological order. An overview of the sources which have been summarised under this section can be found in box 1.

Box 1. List of sources on the impact of COVID-19 on nutritional status

Impact of COVID-19 on nutritional status

Most recent data and evidence (added in April 2021)

Many countries are planning to (re)launch their Demographic and Health Surveys (DHS) in 2021, including DHS, Malaria Indicator Surveys (MIS) and Surveys Provision Assessments (SPA). Despite various challenges, the DHS Programme believes that data collection should resume and aims to support the continued implementation. Relevant challenges include technical assistance, transmission risks, additional costs and delays, and disruptions during implementation. A new DHS guideline identifies key strategies to mitigate these challenges, and alerts stakeholders to the implications of these innovative strategies, MIS and SPA surveys. If adapted, these surveys might also allow measuring COVID-19 and its impact.

Earlier data and evidence collected (August 2020–March 2021)

- A peer-reviewed article from Frontiers in Nutrition suggests population-level malnutrition may be
 related to increased rates of severe and fatal COVID-19. The study uses data on the countryspecific burden of malnutrition from the 2019 Global burden of disease study and global rates of
 fatal COVID-19. It identifies ten LMICs where malnutrition may have played a role in driving an
 increase in fatal cases of COVID-19, as suggested by the coexistence of high malnutrition burden
 and elevated mortality among COVID-19 cases.
- Using three modelling tools, <u>Standing Together for Nutrition</u> estimates that by 2022, COVID-19 could result in an additional 9.3 million wasted and 2.6 million stunted children; 168,000 additional child deaths; 2.1 million maternal anaemia cases; and 2.1 million children born to underweight women, affecting mostly **South Asia** and **sub-Saharan Africa**.
- <u>Save the Children</u> warns that an estimated 11 million children under five are facing extreme hunger across eleven countries.
- <u>Tackling Childhood Stunting in the Eastern Mediterranean Region in the Context of COVID-19</u> explores how the COVID-19 pandemic threatens to increase wasting and stunting in the **Mediterranean Region**.
- SMART has published an <u>Interim Guidance on Household Surveys during COVID-19</u>, which provides guidance on resuming such data collection (rather than continuing to rely only on alternative methods).
- <u>Jacob, CM et al.</u> (September 2020) provides insights on how the COVID-19 pandemic and response may have short- to long-term effects on MNCH, based on data from the global financial crisis that started in 2008.
- <u>The Bill and Melinda Gates Foundation Goalkeepers Report</u> (September 2020) incorporates COVID-19 impacts in its estimates of progress on the SDGs.



- An Axios article warns that the pandemic threatens a decade of progress in child mortality.
- Popkin et al. explore the relationship between overweight and COVID-19 (<u>August 2020</u>). Individuals
 with obesity were at a higher risk of being COVID-19 positive, being hospitalised, being admitted to
 intensive care units, or dying.
- The World Food Programme's (WFP) technical note and guidance on <u>Overweight and Obesity in</u> the Context of COVID-19 (August 2020) is a call to action for promoting nutritious diets.
- Modelled projections produced by <u>Headey et al.</u> (July 2020 in The Lancet), suggest that the global prevalence of child wasting could rise by 14.3% in 118 LMICs. This translates to an estimated additional 6.7 million children with wasting and up to 178,510 additional child deaths in 2020.
- Correspondence from <u>Busch-Hallen et al.</u> suggests that early infant and child mortality estimates from <u>Roberton</u> et al. did not include breastfeeding impacts. They estimate that with a 5-50% reduction in breastfeeding prevalence due to COVID, there would be an additional 16,469-138,398 child deaths in a year across 129 LMICs.

2.1.2 Most recent sources

Title: <u>Guidelines for Virtual Technical Assistance and Survey Implementation during the</u> <u>COVID-19 Pandemic</u>

Author or institution	DHS Program/USAID
Geographic focus	Global
Population focus	All
Technical focus	Nutritional status and service delivery
Information type	Guideline
Date published	March 2021
Date added	April 2021

Purpose/objective of source

To provide implementing agencies in DHS Program countries with technical assistance and guidance on how and when to safely resume DHS survey operations, including Demographic and Health Surveys (DHS), Malaria Indicator Surveys (MIS) and Surveys Provision Assessments (SPA).

Main findings

- Data collection was postponed in all DHS countries early 2020, due to the COVID-19 pandemic.
- The demand for high-quality data did however persist, and many countries are planning to (re)launch their DHS surveys in 2021. Despite various challenges, the DHS Program believes that data collection should resume and aims to support the continued implementation of DHS, MIS and SPA surveys.
- Various challenges need to be anticipated, including:
 - Transmission risks, especially when collecting biomarkers and carrying out trainings.
 - Additional costs, including for procuring personal protective equipment and sanitisers, additional training space, and vehicles to maintain social distancing.
 - Delays and disruptions, including: delays in fieldwork when there is a COVID surge; delays in training of fieldwork when field teams get sick or quarantine requirements need to be quarantined; and backlogs at laboratories who must prioritise COVID testing over surveyrelated biomarker testing.
- The DHS guideline provides practical information on how to resume survey operations while
 protecting staff and respondents, as well as ensuring that national survey implementation does
 not further drive COVID-19 transmission in host countries. The document lays out key strategies
 to mitigate challenges and alert stakeholders to the implications of these innovative strategies to
 implement DHS, MIS and SPA. The steps include:



- Assess the feasibility of remote technical assistance
- Develop a risk mitigation plan
- Determine whether collection of biomarker data is a priority at this time. The DHS Program has identified different challenges and possible mitigations for the collection of biomarkers during the pandemic
- Provision of virtual technical assistance
- If adapted, these surveys might allow measuring COVID-19 and its impact, as the DHS Program
 will consider adding some answer categories to standard questions to allow for COVID-19
 related responses (e.g. fear of visiting a health facility due to concern about COVID-19, reason
 for discontinuation of family planning). As such, DHS data may also shed light on the impacts of
 COVID-19 in communities, including changes in health-seeking behaviour, domestic violence,
 undernutrition, and mortality.

2.1.3 Sources identified in previous months by TASC

Author or institution	Mertens and Peñalvo, Frontiers in Nutrition
Geographic focus	Global (172 Countries)
Population focus	General Population
Technical focus	Nutritional Status
Information type	Journal article (peer reviewed)
Date published	January 2021
Date added	February 2021

Title: The Burden of Malnutrition and Fatal COVID-19: A Global Burden of Disease Analysis

Purpose/objective of source

To identify the countries where prevalent malnutrition may be a driving factor for COVID-19 related fatalities.

Main nutrition-related findings

- This article suggest that population-level malnutrition may be related to increased rates of fatal COVID-19 in areas with an elevated burden of undernutrition.
- Using data on the country-specific burden of malnutrition and fatal COVID-19, the study identified ten countries where malnutrition might have played a role in increasing the country's vulnerability to fatal COVID-19 as suggested by the coexistence of a high burden of malnutrition and elevated mortality among COVID-19 cases.
- The most affected are low-income countries in sub-Saharan Africa, particularly in the Sahel strip, as well as Yemen in the Middle East and North African region.
- Countries with the highest burden of undernutrition, and particularly high "years lived with disability" rates for iron deficiency, also experience markedly higher COVID -19 fatality rates.
- No clear relationship between the burden of vitamin A deficiency and COVID-19 mortality was observed.

Quality of the data / evidence (method)

 The article uses estimates from the Global Burden of Disease 2019, with country-level burden of malnutrition quantified using four indicators: death rates for child growth failure (underweight, stunting, and/or wasting) and years lived with disability attributed to iron and vitamin A deficiencies and high body mass index (BMI).



- Global mortality descriptors of the ongoing COVID-19 pandemic were extracted from the European Centre for Disease Prevention and Control and case fatality ratios were calculated introducing a lag time of ten weeks after the first death of a confirmed case.
- The analysis included 172 countries where both data on malnutrition and case fatality rates could be extracted.

Title: The potential impacts of the COVID-19 crisis on maternal and child undernutrition in low and middle income countries

Author or institution	Osendarp et al., Nature Research
Geographic focus	LMIC
Population focus	Children under five and pregnant women
Technical focus	Nutrition Status
Information type	Journal Article
Date published	Forthcoming (Pre-print December 2020) - paper still under review
Date added	January 2021

Purpose/objective of source

 To present a multi-year picture for 2020-2022 of the potential consequences of economic, food and health systems crises triggered by COVID-19 for maternal and child undernutrition in 118 LMICs with a focus on 1) child stunting, wasting, and mortality, maternal anaemia and children born to women with low BMI; and 2) associated human productivity losses.

Main nutrition-related findings

Presented below are a range of potential assumption scenarios, ranging from optimistic to pessimistic, based on the mitigating impacts of extra financial resources for nutrition. Regardless of the scenario, the COVID-19 crisis is expected to have dramatic effects on maternal and child undernutrition and child mortality in the current generation, with massive long-term negative consequences on productivity.

- **Child wasting:** Compared to projections without COVID-19, it is estimated that an additional 6.4 to 13.6 million children will become wasted from 2020 to 2022, based on predicted Gross National Income declines in the 118 countries. Two-thirds of these additional wasted children in the moderate scenario (9.3 million children) would be in South Asia (6.2 million) and 1.9 million in sub-Saharan Africa.
- **Child stunting:** An estimated 1.5 to 3.6 million additional children will be stunted in 2022 compared to 2019 due to interruptions in nutrition services and deterioration in household poverty status. Under the moderate scenario (2.6 children stunted), almost 1.2 million would be in sub-Saharan Africa and 790,00 in South Asia.
- Under 5 mortality: An estimated 47,000 to 283,000 additional under-5 deaths in the 118 countries over the three years, due to predicted increases in child wasting and declines in nutrition intervention coverage.
- Maternal anaemia and low BMI: An estimated additional 1.0 to 4.8 million pregnant women with any anaemia in the 118 countries in 2020-2022 compared to 2019 as well as 1.4 to 3.0 million children would be born to women with low BMI in 2020-2022.
- Adverse birth outcomes: In an optimistic scenario, two maternal nutrition interventions including multiple micronutrient supplementation in place of iron and folic acid supplementation and balanced energy protein supplementation for malnourished pregnant women would have a positive impact on small-for-gestational-age (SGA) and preterm births and stillbirths if introduced in 2022.

Quality of the data / evidence (method)

• This report is still under review. It is written by a group of scientists, which come together as "Standing Together for Nutrition (STfN)" – which is a consortium of multidisciplinary nutrition, economics, food



and health system experts, currently consisting of 51 individuals from 32 organisations in HIC and LMIC, working to address the scale and reach of COVID-related nutrition challenges.

 The authors used three modelling tools (MIRAGRODEP, Lives Saved Tool, and Optima Nutrition Tool) to estimate impacts on child stunting, wasting, and mortality, maternal anaemia, children born to low BMI women, and future productivity losses for three assumption scenarios (pessimistic, moderate, optimistic) across 2020–2022 in 118 LMICs.

Title: 11m children under five at risk of extreme hunger or starvation across eleven countries

Author or institution	Save the Children
Geographic focus	Africa, the Caribbean, Middle East and Asia
Population focus	Poor, vulnerable
Technical focus	Nutritional status, Nutrition intervention delivery and coverage
Information type	Press release
Date published	November 2020
Date added	December 2020

Purpose/objective of source

To share findings on food security and nutrition from a new analysis by Save the Children and warn of a potential risk of famine.

Main nutrition-related findings

- Save the Children analysed populations facing food insecurity across eleven countries, using data
 from the WFP and the IPC. Using UN population data, they extrapolated the number of children
 under five considered to be at risk of hunger or starvation across all eleven countries, and estimate
 that a total of 11 million children under five are facing extreme hunger or starvation in these countries,
 with the potential risk of famine in Yemen and South Sudan.
- Issues are particularly concerning in countries where the food crisis is extremely serious, made worse by insecurity: Afghanistan, Yemen, South Sudan, Democratic Republic of Congo and the Central Sahel (Mali, Niger & Burkina Faso). COVID-19, conflict and climate change could tip millions of families over the edge.
- "Levels of acute hunger, which were already at record global highs before the pandemic, are continuing to rise. Left unchecked, this puts millions of children's lives at risk. The global hunger crisis is caused by a persistent lack of access to nutritious food in some of the most vulnerable communities in the world and threatens to set countries back by years or even decades in their efforts to reduce child mortality and alleviate poverty. The situation is critical. We are looking at the very real possibility that thousands of children could die."
- "Conflict, insecurity, a changing climate, extreme weather events, and recent invasions of desert locusts are all driving up levels of global hunger and malnutrition, leaving entire populations extremely vulnerable to additional shocks like COVID-19 and its secondary impacts, including lockdowns, school closures and economic recession."
- People struggling to access healthy food, while there is also a widespread disruption to the life-saving services designed to treat malnutrition. Humanitarian access is shrinking at a time when it should be expanding.

Method

 Save the Children analysed populations facing food insecurity across eleven of the worst-affected countries, using data from the World Food Programme and the <u>Integrated Phase Classification</u>, famine early-warning system. Then, using UN population data, the agency extrapolated the estimated number of children under five considered to be at risk of hunger or starvation across all eleven countries. Title: <u>Tackling Childhood Stunting in the Eastern Mediterranean Region in the Context of COVID-</u> 19

Author or institution	Jawaldeh et al.
Geographic focus	Eastern Mediterranean region
Population focus	Children
Technical focus	Nutritional status
Information type	Journal article (peer reviewed, literature review)
Date published	November 2020
Date added	December 2020

Purpose/objective of source

To present an up-to-date picture of child stunting in the countries of the Eastern Mediterranean Region.

Main nutrition-related findings

- This review analysed data from the UNICEF, WHO and the World Bank malnutrition estimates to present an overall picture of childhood stunting in the region. It is estimated that the number of children under 5 in the region who are affected by stunting has dropped from 24.5 million (40%) in 1990 to 20.6 million (24.2%) in 2019, but more efforts are needed to reach the regional and global targets (UNICEF, WHO and World Bank, 2020).
- The COVID-19 pandemic threatens to undermine efforts to reduce malnutrition and to implement the planned nutrition actions.
- In the short term, this might lead to increased prevalence of food insecurity and acute malnutrition. Regional modelling conducted by UNICEF and the Regional Office for the Eastern Mediterranean and published in June (UNICEF MENA, 2020) estimated that between 2000 and 12,000 children under 5 could die in six months in 2020 in Near East and North Africa Region due to wasting caused by the impact of the COVID-19 pandemic on food access and healthcare.

The combined effects of COVID-19 and the measures taken to mitigate its impact, along with the emerging global recession, might also increase stunting, through their effects on access and affordability of safe and nutritious foods and access to essential health services.

Method

 This review is not based on original research but extracted and analysed data from the UNICEF, WHO and the World Bank malnutrition estimates Levels and Trends in Child Malnutrition: Key Findings of the 2020 Edition of the Joint Child Malnutrition Estimates) to present an overall picture of childhood stunting in the region (UNICEF. WHO, and World Bank, 2020).

2.1.4 Information collected under MQSUN+

Building Resilient Societies after COVID-19: The Case for Investing in Maternal, Neonatal and Child Health

Author or institution:	Jacob, CM et al. / The Lancet
Geographic focus:	Global
Technical focus:	Nutritional status, Breastfeeding, Diet, Nutrition intervention delivery, Food price and availability
Information type:	Peer-reviewed journal
Date published:	September 2020



Date added: September 2020

This viewpoint emphasises short to long term effects on MNCH and highlights how the COVID -19 pandemic could impact MNCH, based on the effect of previous socioeconomic crises, particularly the global financial crisis that started in 2008:

- A 10% reduction in gross domestic product (GDP) was associated with a 9% increase in maternal mortality, disproportionately affecting adolescent mothers.
- In <u>Portugal</u> during 2007-14, a 25% increase in low birthweight accompanied the reduction in GDP (growth rate -1%), health expenditure and social protection, especially for migrant children.
- In <u>Greece</u> (one of the European countries most affected by the 2008 financial crisis), GDP fell by at least 15% between 2008 and 2014, unemployment increased from 8% to 27%, stillbirths to women younger than 25 years increased by 42% and low birthweight increased from 7% to 12%.
- The COVID-19 pandemic, by disproportionately affecting multiple pathways, threatens to undermine the future population's physical and mental health and economic resilience.
- From data on 30 high-income countries and LMICs, <u>Fernandes</u> (March 2020) suggests that each additional month of lockdown will reduce GDP by 2.5-3% (varying by country, but potentially as high as 10-15% with extended lockdown). However, these data underestimate the effect, as GDP does not include unpaid work, such as breastfeeding, providing care, domestic chores and food production, which are exclusively or predominantly done by women. Furthermore, the informal economy (which offers workers little protection in an economic downturn) is 61% of the global workforce, and in many LMICs, almost half of these workers are women.
- Based on other estimates (e.g. <u>Roberton</u>), there will be reduced investment in MNCH, reductions in service and coverage, increases in malnutrition and other effects later impacting nutrition.
- The authors call for priority actions for policies to invest in MNCH to improve population health and resilience to respond to the COVID-19 pandemic.

Author or institution:	Bill and Melinda Gates Foundation
Geographic focus:	Global & Regional
Technical focus:	Nutritional status and related outcomes
Information type:	Informal
Date published:	September 2020
Date added:	September 2020

Goalkeepers Report 2020

This year's report examines the impact of COVID-19 to estimate the world's progress toward the Sustainable Development Goals (SDGs).

- Globally, the prevalence of <u>stunting</u> amongst children under five is estimated to fall short of meeting the 2030 target of 15% (20% best case scenario / 26% worst case scenario).
- <u>Maternal mortality</u> is also estimated to decrease from 2019 to 2030 but be above the 2030 target of 70 maternal deaths per 100,000 live births (93 better scenario / 137 worse scenario)
- Unlike stunting and maternal mortality, in the best-case scenario, <u>under-five mortality</u> may reach the 2030 target of 25 under-five deaths per 1,000 live births due to a potential decrease in a new pneumonia vaccine and increased investments due to COVID-19 to treat respiratory conditions. However, it may increase from 37 deaths per 1,000 live births in 2019 to 40 deaths per 1,000 live births based on models (Roberton 2020) that predict a dramatic increase in acute malnutrition.

Pandemic is Threatening a Decade of Progress in Child Mortality Rates

Author or institution: Eileen Drage O'Reilly/Axios



Geographic focus:	Global
Technical focus:	Nutritional status and related outcomes
Information type:	Informal
Date published:	September 2020
Date added:	September 2020

This short article warns that COVID-19 has undone potentially a decade of progress in education, access to utilities, gender equity, and health services (antenatal care, facility births, and immunisations, amongst others). There will be long- and short-term ramifications for health. Based on PATH's estimates (building on Roberton et al), under-five mortality may be as high as 48 deaths per 1000 live births (where we were in 2010), whereas the pre-COVID-19 trend was more along the lines of 36 deaths per 1000 live births. This means a loss of 2.3 million children (the population of Houston, TX) just from service disruptions due to COVID-19. The article also mentioned the WHO survey and other resources mentioned in this core document.

Individuals with Obesity and COVID-19: A Global Perspective on the Epidemiology and Biological Relationships

Author or institution:	Popkin et al. / Obesity Reviews
Geographic focus:	Global & Regional
Technical focus:	Nutritional status, Diet
Information type:	Peer-reviewed journal
Date published:	August 2020
Date added:	September 2020

This pooled analysis published in Wiley Online Library analysed 75 studies (conducted from January to June 2020) on the relationship of individuals with obesity and COVID-19 from risk to mortality. This is relevant to LMICs given that >70% of individuals with overweight/obesity live in low- or middle-income countries, and as economies grow, the burden of obesity shifts to the poor. All were conducted between January and June 2020, including five case-control studies, 33 retrospective or prospective cohort studies and 37 observational cross-sectional studies. Sample sizes varied from 24 to 109,367 diagnosed patients in more than 10 countries in Asia, Europe and North and South America. In total, 399,461 diagnosed patients are included (55% male). Highlights include:

- Individuals with obesity were at higher risk of being COVID-19 positive (>46%), hospitalised (113%), admitted to ICU (74%) and for mortality (48%)
- Despite little evidence published as of that date, the article speculates how the pandemic may shift diets to increase consumption of refined carbohydrates and increased highly ultra-processed foods leading to increased prevalence of individuals with obesity. The current pandemic could unintentionally worsen noncommunicable diseases. Poor people around much of the globe also face increased hunger and with it the potential for elevated stunting and its consequences, including the long-term risks of central visceral adiposity and many non-communicable diseases.
- Most low- and middle-income countries do not have resources for providing fresh vegetables and fruits. It is important to carefully monitor and regulate the consumption of ultra-processed foods and beverages through fiscal policies such as taxation and regulating the marketing of such foods.

Early Estimates of the Indirect Effects of the COVID-19 Pandemic on Maternal and Child Mortality in Low-income and Middle-Income Countries: A Modelling Study

Author or institution:	Roberton et al. / The Lancet
Geographic focus:	Global



Technical focus:	Nutritional status
Information type:	Peer-reviewed journal
Date published:	May 2020
Date added:	August 2020

Provides modelling estimates of the effects of COVID-19 pandemic on child wasting and maternal and child mortality in LMIC. Modelling suggested the potential impact of COVID-19-related service disruptions and reduced Gross National Income (GNI) suggests that the prevalence of wasting could increase by 10-50% (an excess of 40,000-2,000,000 child deaths). Summary of evidence:

- Modelling of reduced maternal and child health coverage and increased prevalence of wasting shows that an additional under-5 child and maternal deaths could increase by 10-45% per month and 8-39% per month respectively across the 118 countries.
- This equates to an additional 253,500 to 1.2M additional child deaths and 12,200-56,700 additional maternal deaths.
- Modelled three scenarios in which the coverage of essential maternal and child health interventions is reduced by 10-52% and the prevalence of wasting is increased by 10-50%.
- Across three scenarios, the reduced coverage of four childbirth interventions (parenteral administration of uterotonics, antibiotics and anticonvulsants, and clean birth environments) would account for approximately 60% of additional maternal deaths. The increase in wasting prevalence would account for 18-23% of additional child deaths and reduced coverage of antibiotics for pneumonia and neonatal sepsis and of oral rehydration solution for diarrhoea would together account for around 41% of additional child deaths.

Author or institution:	Headey et al. / The Lancet
Geographic focus:	Global
Technical focus:	Nutritional status, Nutrition intervention delivery
Information type:	Peer-reviewed journal
Date published:	July 2020
Date added:	August 2020

Impacts of COVID-19 on Childhood Malnutrition and Nutrition-Related Mortality

As above, this paper provides modelling estimates of the effects of COVID-19 pandemic on child wasting and maternal and child mortality in LMIC. A more recent modelling estimated a 14% increase (an additional 6.7 million children in 2020 in the prevalence of wasting amongst children under 5 based on losses in GNI per capita alone). Summary of evidence:

- MIRAGRODEP projections suggest that even a fairly short lockdown, combined with severe mobility disruptions and moderate food systems disruptions, result in LMICs having an estimated average 8% (SD 2.4%) decrease in GNI per capita relative to pre-COVID-19 projections.
- A model projection showed that 118 LMICs could result in a 14.3% increase in the prevalence of moderate or severe wasting amongst children younger than 5 years due to COVID-19-related predicted country-specific losses in GNI per capita. This would translate to an additional estimated 6.7 million children with wasting in 2020 compared with projections for 2020 without COVID-19: an estimated 58% in South Asia and 22% in sub-Saharan Africa.
- The projected increase in wasting in each country is combined with a projected year average of 25% reduction in coverage of nutrition and health services; there would be an estimated 128,605 (ranging from 111,193 to 178,510 for best and worst-case scenarios) additional deaths in children younger than 5 years during 2020, with an estimated 52% of these deaths in sub-Saharan Africa.

This is based on Roberton and colleagues' coverage scenarios, using a low of 15% and high of 50% disruption in vitamin A supplementation, treatment of severe wasting, promotion of improved young child feeding and provision of micronutrient supplements to pregnant women.

COVID-19 Pandemic and Mitigation Strategies: Implications for Maternal and Child Health and	
Nutrition	

Author or institution:	Askeer et al. / The American Journal of Clinical Nutrition
Geographic focus:	Global
Technical focus:	Nutritional status, Nutrition intervention delivery
Information type:	Peer-reviewed journal
Date published:	June 2020
Date added:	August 2020

This article suggests that <u>Roberton's</u> modelling likely underestimates, failing to account for the potential effect on maternal nutrition, micronutrient deficiencies and intrauterine growth as well as downstream impacts on maternal and child health programmes that can impact linear growth and childhood stunting. Provides risk factors for undernutrition in the context of COVID-19 and approaches to prevent exacerbating maternal and child nutrition. Highlights that COVID-19 will likely affect all forms of malnutrition. Summary of evidence:

- Coronavirus disease 2019 (COVID-19) continues to ravage health and economic metrics globally, including progress in maternal and child nutrition. Although there has been a focus on rising rates of childhood wasting in the short term, maternal and child undernutrition rates are also likely to increase as a consequence of COVID-19 and its impacts on poverty, coverage of essential interventions and access to appropriate nutritious foods.
- Key drivers at particular risk of collapse or reduced efficiency in the wake of COVID-19 include food systems, incomes and social protection, health care services for women and children and services and access to clean water and sanitation.

Impact of COVID-19 on Maternal and Child Health

Author or institution:	Busch-Hallen et al. / The Lancet
Geographic focus:	Global
Technical focus:	Nutritional status, Breastfeeding, Nutrition intervention delivery
Information type:	Peer-reviewed journal
Date published:	August 2020
Date added:	August 2020

This correspondence added further commentary on the estimates shared by Roberton's article, modelling (based on Alive and Thrive programme work) the effect of reduced breastfeeding from COVID-19 on child mortality. It reports anecdotal evidence suggesting that some health facilities are inappropriately separating newborn babies from mothers and discouraging breastfeeding because of unfounded fears of transmission of COVID-19 through breastmilk. Using the Alive & Thrive, it modelled a hypothetical effect of small (5%), moderate (10%), medium (25%), or severe (50%) relative reductions in the prevalence of breastfeeding due to COVID-19 disruptions would result in 16,469 (small reduction), 32,139 (moderate reduction), 75,455 (medium reduction) and up to 138 398 (severe reduction) child deaths across 129 LMICs over a one-year period, plus additional morbidity.

Biblical, on Steroids, and Across Generations: The Coming Food and Nutrition Crash Can Be Averted if We Act Now to Counter the COVID-19 Crisis

Author or institution: Haddad / IFPRI Blog



Geographic focus:	Global
Technical focus:	Nutritional status, Breastfeeding, Nutrition intervention delivery, Diet, Food price and availability
Information type:	Informal
Date published:	April 2020
Date added:	August 2020

This blog published stunting estimates as a result of COVID-19 based on reduced Gross Domestic Product (GDP) alone. It also raised that the UNU WIDER group, a research centre of the United Nations University, modelled the <u>short-term economic impact of COVID-19</u> on global monetary poverty. Based on a 10% decline in global GDP (as reported by UNU WIDER) there will be an increase of 5% in stunting rates globally.

2.2 Breastfeeding practices

2.2.1 Summary overview

This section includes source descriptions of the data and evidence identified on the indirect impact of COVID-19 on breastfeeding practices.

The source descriptions are organised in chronological order. An overview of all the sources which have been summarised under this section can be found in box 2.

Box 2. List of sources on the impact of COVID-19 on breastfeeding

Impact of COVID-19 on breastfeeding

Most recent data and evidence (added in April 2021)

• A review carried out by <u>Olonan-Jusi et al. (2021) observes that</u> 35 human milk banks were operating in five **South East Asian** countries by December 2020. The authors highlight the importance of adherence to the <u>WHO quideline related to breastfeeding during the pandemic</u>. They suggest human milk banks can play an important role in providing donor human milk for vulnerable infants during the pandemic.

Earlier data and evidence collected (August 2020-March 2021)

- Rollins et al. (2021) present an approach for deciding public health policy on infant feeding and mother–infant contact in the context of COVID-19. The model applies available data in the Lives Saved Tool (LiST) and estimates that the number of infant deaths in LMICs due to COVID-19 (2020–21) might range between 1,800 and 2,800. Alternatively, if mothers with confirmed SARS-CoV-2 infection are recommended to separate from their newborn babies and avoid or stop breastfeeding, estimations of additional deaths among infants would range between 188,000 and 273,000. The survival benefits of breastfeeding substantially outweigh the very low reported case fatality rates among infants with COVID-19.
- In BMJ Nutrition, Prevention and Health, <u>Hoang et al.</u> review guidance documents from 33 countries (12 of which are LMICs) on the care of infants whose mothers were suspected or confirmed as COVID-19 positive, and assess for alignment with WHO recommendations on breastfeeding and COVID-19. The review found most countries did not recommend keeping mothers and infants in close proximity or continuation of direct breastfeeding, and that overall, recommendations against practices supportive of breastfeeding were common.
- In Maternal and Child Nutrition, <u>Haiek et al. provide guidance on how parents and healthcare</u> providers can be involved in shared decision-making processes for infant feeding and care during the COVID-19 pandemic. They propose a structure and rationale to guide the process, which shifts the conversation from giving patient education to exchanging information to help the parents reach their goals.
- The Lancet Regional Health-Western Pacific article from China on breastfeeding practices. SARS-CoV-2 and its antibodies in the breastmilk of mothers confirmed with COVID-19 (November 2020) confirms there is currently no evidence on the transmission of COVID-19 through breastmilk.



- Technical Rapid Response Team's (Tech RRT) third and fourth Learning and Sharing Café webinars enabled countries (Jordan, Kyrgyz Republic, Lebanon, Nepal, Syria, and Sierra Leone) to share their experiences in adapting IYCF programmes in emergency contexts and in the context of COVID-19 (October 2020). Using mobile phones, social media, COVID-19-informed SBCC materials and job aids, and other innovative approaches, the programmes quickly and creatively assessed and addressed emerging IYCF programme barriers.
- <u>Correspondence</u> in the Lancet highlights violations (e.g. in India, Pakistan, and the Philippines) of the Code of Marketing of Breastmilk Substitutes. It calls for urgent action to improve Code implementation and enforcement in every country, with severe sanctions for any violations.
- <u>Lubbe, W, et al</u>. review publications on breastfeeding during the COVID-19 pandemic. The authors conclude that breastfeeding should be encouraged with skin-to-skin contact, and mothers and infants should be cared for together.
- The newly updated UNICEF database <u>Tracking the Situation of Children During COVID-19</u> includes reports from 43 countries on violations of the International Code on Marketing of Breastmilk Substitutes (BMS).
- John Hopkins University is regularly updating a literature repository on "COVID-19, Breastfeeding, Infant Feeding, Breast Milk". It largely focuses on the potential for COVID-19 transmission, with a few LMIC-based studies examining changes in breastfeeding rates or knowledge, attitudes or practices.
- <u>Commentary on breastfeeding in the Journal of Human Lactation (Dodgson, July 2020)</u> highlights the struggle to ensure compliance with the <u>International Code of Marketing Breast-Milk Substitutes</u> (BMS) during the crisis.
- A living systematic review published in the Annals of the New York Academy of Sciences suggests there is no evidence of SARs-CoV-2 transmission through breastmilk.
- An article in the BMJ (<u>Bhatt, August 2020</u>) compiles anecdotal evidence on the potential impact–on breastfeeding practices in **India**–of government guidance on isolating newborns from their mothers with COVID-19. It finds that doctors rather than families are making the decisions regarding child separation.
- The WHO's June 2020 <u>scientific brief on COVID-19 and breastfeeding</u> advises that recommendations on initiation and continued breastfeeding continue to apply, regardless of mothers having suspected or confirmed COVID-19.
- UNICEF conducted an <u>online survey</u> (results published August 2020) in which 88 country offices in seven regions report that most countries (84-91%) have adopted global guidelines for breastfeeding in the context of COVID-19. But it notes reports of overburdened health systems unable to continue providing breastfeeding services, and of increased promotion of BMS.

2.2.2 Most recent sources

Title: Human milk banks in the response to COVID-19: a statement of the regional human milk bank network for Southeast Asia and beyond

Author or institution	Olonan-Jusi et al., 2021
Geographic focus	South East Asia
Technical focus	Breastfeeding practices
Information type	Commentary
Date published	March 2021
Date added	April 2021

Purpose/objective of source

To carry out a review of guidelines on pregnancy, intrapartum and postpartum care in the context of COVID-19 in 33 countries, including seven in South East Asia.



Main nutrition-related findings

- As of December 2020, there were 35 human milk banks operating in five South East Asian countries. These are vital for providing donor human milk for vulnerable infants during the pandemic.
- The authors highlight the role of human milk bank services for vulnerable infants, especially
 during the crisis, and the need for COVID-19 country guidelines explicitly recommending the use
 of pasteurised donor human milk as a feeding option when a mother's own milk is not available.
 This is reflected in WHO's guidance on breastfeeding during COVID-19.
- The authors recommend the integration and clear definition of the role of human milk banks in the clinical management of COVID-19 in newborn care guidelines, as a prerequisite for full alignment with the WHO's evidence-based recommendations.
- The authors also cite some challenges:
 - The absence of WHO guidelines specific to the operation of human milk banks.
 - Human milk banks not being designed to, nor currently sufficient in capacity to respond to, large-scale emergencies, especially one as complex as COVID-19.
- Some opportunities were also identified by the authors:
 - The pandemic can be an opportunity to accelerate the development of WHO guidelines on the operation of human milk banks, and to advocate for interventions to increase coverage of human milk bank services.
 - The pandemic also provides an opportunity to establish human milk banks in countries in need and sustain global partnerships through knowledge sharing and joint ad vocacy.

Quality of the data / evidence (method)

 A review of guidelines on pregnancy, intrapartum and postpartum care in the context of COVID-19 was conducted. Guidelines were collected from 33 countries, including seven in South East Asia, between 21 March and 30 April 2020.

2.2.3 Sources identified in previous months by TASC

Title: <u>A public health approach for deciding policy on infant feeding and mother-infant contact in the context of COVID-19</u>

Author or institution	Rollins et al., WHO COVID-19 Maternal, Newborn, Child and Adolescent Health Research Network, Newborn and Infant Feeding Working Groups
Publication	The Lancet
Geographic focus	LMIC (119 countries)
Technical focus	Breastfeeding Practices
Information type	Peer-reviewed journal
Date published	February 2021
Date added	March 2021

Purpose/objective of source

To address the differing recommendations by health professional associations and national health authorities resulting from concerns about the possibility and effects of mother–infant transmission of SARS-CoV-2 through breastfeeding and close contact. Authors present an approach for deciding public health policy on infant feeding and mother–infant contact in the context of COVID-19, or for future emerging viruses, that balances the risks associated with viral infection against child survival, lifelong health and development, and maternal health.

Main nutrition-related findings



- The paper reflects on inconsistencies in interpretation of evidence relating to infant feeding and care
 practices during the COVID-19 pandemic. "The lack of consensus in recommendations and public
 health messaging suggests that risk aversion to the possible effects of COVID-19 have outweighed
 consideration of the survival and health benefits that skin-to-skin contact and breastfeeding offer to
 newborn babies and young infants." As such, the paper aims to provide an evidence-based model
 which can be used to guide policies, even in the absence of high-quality data.
- In the approach, the authors use existing data and apply these in the Lives Saved Tool (LiST). They estimated that the number of infant deaths in LMICs due to COVID-19 (2020–21) might range between 1,800 and 2,800. On the other hand, if mothers with confirmed SARS-CoV-2 infection are recommended to separate from their newborn babies and avoid or stop breastfeeding, estimations of potential additional deaths among infants range between 188,000 and 273,000.
- As a result (and assuming high rates of mother—infant SARS-CoV-2 transmission through contact and breastmilk, and using Case Fatality rates (CFR)), the additional deaths among newborn babies and infants in LMICs who would be subjected to separation and non-breastfeeding would be approximately 67 times greater than the number of newborn babies and infants who are likely to die because of COVID-19 in 2020-21. The authors also claim that this is almost certainly an underestimate of the effect on mortality of a policy that would separate mothers from their newborn babies and disrupt breastfeeding.

Table 1. Estimated additional infant deaths by country and for all LMICs because of early separation and no breastfeeding among exposed newborns and infants (2020-21)

	Livebirths	Neonatal deaths (per 1000 livebirths), 2018–19	COVID-19- related deaths in infants*†‡	COVID-19- related deaths in infants*‡§	because of e and no brea	osed newborns
					Scenario 1	Scenario 2
Ghana	864720	23.95	16	23	1983	1311
Nigeria	7197225	36-02	130	194	49518	35 117
South Africa	1204852	10-74	22	33	1300	827
Argentina	747 792	6-36	13	20	123	75
Guatemala	425 986	12.30	8	12	685	509
Mexico	2 2 2 9 5 0 2	7.51	40	60	615	367
Lebanon	116 540	4.32	2	3	16	11
Pakistan	5798236	41.95	104	157	18 403	12208
Turkey	1320135	5.46	24	36	182	118
Indonesia	4749802	12.74	85	128	5809	4015
Papua New Guinea	234195	22.11	4	6	666	461
Thailand	709759	5-02	13	19	95	62
India	23724430	22.73	427	641	46 937	31928
Myanmar	942 842	36.74	17	25	2777	1926
Sri Lanka	326 879	4.49	6	9	49	34
All LMICs (119 countries)	104051261	17.67	1875	2809	273 453	188 626

CFR=case fatality rate. LMIC=low-income and middle-income countries. Data are n. *Age 0–12 months. †Assuming 20% transmission rate and a CFR of 0.09%. ‡Assuming no separation and continued breastfeeding. \$Assuming 30% transmission rate and a CFR of 0.09%.

Table: Estimated additional infant deaths (2020–21)

Source: <u>A public health approach for deciding policy on infant feeding and mother-infant contact in the</u> <u>context of COVID-19</u>

This paper provides some practical **recommendations** on what countries should consider when deciding on public health policy on infant feeding and mother—infant contact in the context of COVID-19, or for emerging viruses in the future. The state of evidence and balance of risk estimates support close mother—infant contact and breastfeeding by mothers with confirmed SARS-CoV-2 infection, while still

implementing infection prevention and control measures, including handwashing and wearing face masks. The survival benefits of breastfeeding substantially outweigh the very low reported CFRs among infants with COVID-19 (WHO interim Guidance, May 2020).

Evidence gaps

 The paper includes a panel presenting existing evidence, as well as research and programme gaps. The paper concludes that further research should address the research gaps identified, while future estimations should adopt a comprehensive child survival and health approach to avoid oversimplification. Animal models would be helpful for elucidating infectivity of viruses through breastfeeding.

Quality of the data / evidence (method)

- The approach in this Lancet paper is based on available evidence for the competing benefits and harms (panel) for developing policy on mother—infant contact and infant feeding practices in the context of COVID-19, or other future viral agents. Specifically, policy development that balances the risks associated with viral infection with the effect on child survival, lifelong health, and development. Considerations such as incidence among mothers, duration of infectivity, and feasibility of identifying infection are all necessary if avoidance of contact and breastfeeding are to produce an overall benefit. As such, LiST and current national mortality rates were used to estimate infant deaths in 2020–21 that were attributable to separation and non-breastfeeding among approximately 104,000,000 livebirths in 119 LMICs.
- The authors considered the effects of inputs that sequentially and cumulatively influence the balance of risks for infants living in LMICs. The model estimated the effects of separation and non-breastfeeding by mothers with confirmed SARS-CoV-2 (with or without symptoms). It then estimated the potential annual number of infant deaths in 119 LMICs that might be attributable to COVID-19, as well as the additional deaths due to separation and non-breastfeeding among infants potentially affected by such a policy approach.

Title: <u>A study of breastfeeding practices</u>, SARS-CoV-2 and its antibodies in the breast milk of mothers confirmed with COVID-19

Author or institution	Peng et al. (The Lancet Regional Health-Western Pacific)
Geographic focus	China
Population focus	Infants
Technical focus	Breastfeeding practices
Information type	Journal article (peer reviewed)
Date published	November 2020
Date added	December 2020

Purpose/objective of source

To investigate possibility of SAR-CoV-2 transmission through breastmilk and its antibodies in breastmilk of mothers confirmed with COVID-19, as well as the impacts of prolonged mother-child separation on breastfeeding practices due to quarantine control measures.

Main nutrition-related findings

- The 44 breastmilk samples tested negative for the SARS-CoV-2 nucleic acid (i.e. no trace of the coronavirus through breastmilk). There were no IgG antibodies for SARS-CoV-2 in the breastmilk samples even several weeks post infection. IgG is one of many antibodies that are primarily expressed in breastmilk after recovery from an infectious disease and last for months or years. Testing for other antibodies may have yielded different results.
- Mothers with confirmed and suspected COVID-19 delayed initiation of breastfeeding or feeding of
 expressed breastmilk to infants until three weeks, and one and half weeks after delivery, respectively,



as compared with the control group who initiated breastfeeding in the first week after delivery. While all the confirmed and suspected mothers were guided on expressing breastmilk after delivery, they were unable to initiate feeding breastmilk to their baby primarily due to strict isolation and quarantine measures, especially during the first three months of the COVID-19 outbreak.

Knowledge gaps

The lack of IgG antibodies for SARS-CoV-2 in the breastmilk samples is a finding inconsistent with previous studies and needs further investigation.

Method

This paper presents the interim results of a longitudinal study carried out in Hubei province, China. In total, 44 breastmilk samples were collected from 16 of the 24 mothers with confirmed COVID-19 for COVID-19.

Title: IYCF Programming Adaptations in the Context of COVID-19 (third Learning and Sharing Café)

Author or institution	Technical Rapid Response Team (Tech RRT) and Infant Feeding in Emergencies Core Group (IFE, Core)
Geographic focus	Jordan, Nepal, Kyrgyz Republic
Population focus	Children <5
Technical focus	Breastfeeding practices (IYCF-E)
Information type	Webinar
Date published	October 2020
Date added	December 2020

Purpose/objective of source

This webinar is designed as a platform for countries to share their experiences in adapting IYCF programmes in emergency contexts and in the context of Covid-19.

Main nutrition-related findings

Infant and Young Child Feeding in Emergencies (IYCF-E) to strengthen IYCF practices during Covid-19 in Nepal (Helen Keller International)

 Challenges related to Covid-19 include a nationwide lockdown affecting on-going in-person IYCF/SBCC interventions; reduced access to markets; disruption of nutrition and health services; and fear of mother/child infection. To address some of these issues, the *Suaahara* programme adapted IYCF guidelines to the country context; adapted SBCC materials and developed job aids for frontline workers; conducted tele-counselling; accelerated social and mass media; and conducted virtual inperson capacity building.

IYCF activities in response to Covid-19 in Jordan (UNHCR/International Medical Corps)

Challenges related to Covid-19 include the requirement of special permits for nutrition counsellors to
enter the camps; the availability of local pharmacies selling milk formula inside the camps
(uncontrolled during lock down); primary health centres operating at zero to minimum capacity,
responding only to emergencies; and children have no access to MUAC screening. To adapt to these
conditions, primary health centres changed their schedules and location of follow-ups; there was
increased cooperation with medical teams and pharmacists selling milk formula; community nutrition
volunteers were redistributed to primary health centres and also trained on remote working; and
families were trained in MUAC screening.

Kyrgyz Republic adaptation of nutrition programming for Covid-19 (USAID)

 Quarantine and lockdowns led to loss of income for daily-income seekers, limited access to food for vulnerable groups, and limited access and reduced availability of health services provision. Additionally, health providers lack knowledge of IYCF best practices in relation to Covid-19 and



mothers are concerned about breastfeeding during the pandemic. To address these issues, the programme adapted community activities for online/digital engagement and distribution; updated health facility activities by integrating Covid-19 guidance into IYCF counselling and providing remote training for and supportive supervision to health providers.

Method

• This information was shared in the form of a webinar, mostly by development partners working in the field of IYCF in several LMIC.

Title: IYCF Programming Adaptations in the Context of COVID-19 (fourth Learning and Sharing	
<u>"Café")</u>	

Author or institution	Technical Rapid Response Team (Tech RRT) and Infant Feeding in Emergencies Core Group (IFE, Core)
Geographic focus	Syria, Sierra Leone, Lebanon
Population focus	Infant and small children
Technical focus	Breastfeeding practices (IYCF-E)
Information type	Webinar
Date published	October 2020
Date added	December 2020

Purpose/objective of source

This webinar is designed as a platform for countries to share their experiences in adapting IYCF programmes in emergency contexts and in the context of COVID-19.

Main nutrition-related findings

IYCF-E response in Syria during COVID-19 (UNICEF)

 Due to children needing healthcare outside of camp, mother child dyads were separated and required services to help establish re-lactation, especially as donated breastmilk substitutes were available. The programme adapted by using simplified IYCF measures including group counselling sessions rather than individual counselling (where criteria such as the need for use of cup feeding, tube feeding integration with breastfeeding had to be met first), all while applying a strong Communication for Development and intersectoral approach.

IYCF programming during COVID-19 in Sierra Leone (Action Against Hunger)

 Individual counselling sessions stopped, mother and father support groups were suspended, community education and awareness sessions ended, and there was also confusion over Covid-19 precautionary measures. To adjust to these realities, the programme implemented a rapid behaviour assessment in communities, adapted USAID pictorial IYCF counselling cards, trained lead mothers and fathers as peer educators, held community Q&A sessions, and conduced mass media campaigns on IYFC and care practices.

IYCF-E interventions in Lebanon (UNICEF and International Orthodox Christian Charities)

• Some of the challenges resulting from Covid-19 included the inability to conduct group sessions, the need to ensure appropriate infection, prevention and control measures, and the inappropriate distribution of breastmilk substitutes. To address these challenges, the programme mobilized volunteers to increase the frequency of socially distanced awareness sessions, trained staff on personal protection measures, and built the capacity of formula milk providers on IYCF and national and international guidelines on IYCF-E.

Method

 This information was shared in the form of a webinar, mostly by development partners working in the field of IYCF in several LMICs.



2.2.4 Information collected under MQSUN+

Author or institution:	Van Tulleken et al.
Publication:	The Lancet
Geographic focus:	Global
Technical focus:	Breastfeeding
Information type:	Peer-reviewed journal
Date published:	8 October 2020
Date added:	15 October 2020

Marketing of Breastmilk Substitutes during the COVID-19 Pandemic

This feature outlines how India's efforts to promote breastfeeding are threatened by COVID-19, as misguided fears of infection see newborns separated from mothers and formula milk promoted. It notes that doctors are allowed to make the decision to separate on a case-by-case basis depending on the clinical condition of the mother and newborn and outlines likely negative impact on breastfeeding, although no firm estimates are provided. It notes a number of anecdotes of breastfeeding having become stigmatised during the pandemic.

Breastfeeding during the COVID-19 Pandemic – A Literature Review for Clinical Practice

Author or institution:	Lubbe W. et al. / International Breastfeeding Journal
Geographic focus:	Global
Technical focus:	Breastfeeding
Information type:	Peer-reviewed journal
Date published:	14 September 2020
Date added:	30 September 2020

This review summarises how to manage breastfeeding during COVID-19 and uses this evidence to create guidelines for healthcare professionals and mothers, available as a chart for quick clinical reference. Based on current evidence indicating no risk of SARS-CoV-2 transmission via breastmilk, the authors conclude that breastfeeding should be encouraged with skin-to-skin contact, and mothers and infants should be cared for together. It mentions that if mothers are actually too ill to breastfeed, they should be supported to express their milk, and the infant should be fed by a healthy individual.

<u>Transmission of SARS-CoV-2 through Breast Milk and Breastfeeding: A Living Systematic</u> <u>Review</u>		
Author or institution:	Centeno-Tablante et al. / Annals of the New York Academy of Sciences	
Geographic focus:	Global	
Technical focus:	Breastfeeding	
Information type:	Peer-reviewed journal	
Date published:	28 August 2020	
Date added:	08 September 2020 (living document, regularly updated)	
This living systematic review of the transmission of the infection from mother to child (particularly through breastmilk and breastfeeding) aims to capture information that might necessitate changes to the guidance on breastmilk and breastfeeding, given the uncertainty in this area. The current review includes 340 records with 37 breastmilk samples and 303 without. Highlights include:

- There is currently no evidence of SARS-CoV-2 transmission through breastmilk.
- Studies are needed with longer follow-up periods that collect data on infant feeding practices and presence in breastmilk.

Breastfeeding in India is Disrupted as Mothers and Babies are Separated in the Pandemic

Author or institution:	Bhatt
Publication:	The BMJ
Geographic focus:	India
Technical focus:	Breastfeeding
Information type:	Peer-reviewed journal
Date published:	25 August 2020
Date added:	08 September 2020

This feature outlines how India's efforts to promote breastfeeding are threatened by COVID-19, as misguided fears of infection see newborns separated from mothers and formula milk promoted. It notes that doctors are allowed to make the decision to separate on a case-by-case basis depending on the clinical condition of the mother and newborn and outlines likely negative impact on breastfeeding, although no firm estimates of the impact are provided. It notes a number of anecdotes of breastfeeding having become stigmatised during the pandemic.

Breastfeeding and COVID-19 Scientific Brief

Author or institution:	WHO
Geographic focus:	Global
Technical focus:	Breastfeeding
Information type:	Informal
Date published:	23 June 2020
Date added:	25 August 2020

This WHO-published a scientific brief on the evidence of the risks of transmission of COVID-19 from an infected mother to her baby through breastfeeding and evidence on the risks to child health from not breastfeeding. It provides recommendations on breastfeeding and COVID-19. Highlights include:

- At present, data are not sufficient to conclude vertical transmission of COVID-19 through breastfeeding.
- Based on available evidence, WHO recommendations on the initiation and continued breastfeeding of infants and young children also apply to mothers with suspected or confirmed COVID-19.

Adoption of Breastfeeding Recommendations in the Context of COVID-19: Key Findings from an Online Survey in Low- and Middle-Income Countries

Author or institution: UNICEF



Geographic focus:	Global
Technical focus:	Breastfeeding, Policy
Information type:	Informal
Date published:	August 2020
Date added:	25 August 2020

UNICEF conducted an online survey in seven regions in June 2020 to collect information from country offices on the adoption of breastfeeding recommendations in the context of COVID-19 -(88 country offices completed the survey). Highlights include:

 Many countries adopted global guidelines on breastfeeding in the context of COVID-19 with little or no changes to existing guidance. Of the few exceptions were Bhutan, Malaysia and El Salvador, which did not recommend breastfeeding.

82% (72 countries) adopted recommendation for skin-to-skin contact,

91% (80 countries) promoted optimal breastfeeding practices,

90% (79 countries) provided breastfeeding counselling and practical support,

84% (74 countries) adopted room-in.

- 41% of responses mentioned infant formula as one of the only alternative feeding options when the mother is too unwell to breastfeed.
- Continuation of routine breastfeeding services is negatively impacted by the health system managing COVID-19 cases. Few settings explored the use of mobile phones for counselling.
- Misconceptions about breastfeeding in the context of COVID-19 are widely reported by most countries. This includes fear of transmission despite infection control measures.
- There are reports of increased promotion of breastmilk substitute and donations by infant formula companies are found in new countries.

2.3 Diet diversity and practices of women and children

2.3.1 Summary overview

This section includes source descriptions related to data and evidence on the indirect impact of COVID-19 on the diet diversity and dietary practices of women and children.

While the focus remains on women and children, evidence and data relating to diet diversity and practices of households, as well as information on food security, is also considered, as these are likely to impact the quality of the diets of women and children.

The source descriptions are organised in chronological order. An overview of all the sources which have been summarised under this section can be found in box 3.

Box 3. List of sources on the impact of COVID-19 on diet diversity and practices

Impact of COVID-19 on diet diversity and practices

Most recent data and evidence (added in April 2021)

- A household phone-based survey, conducted by WFP, on the impact of COVID-19 on households in Nepal, indicates gradual improvements in food security and diet diversity for households and children between April and December 2020. Despite these improvements, 17% of households still had inadequate food consumption and more than 42% of children aged 6-23 months did not meet the minimum recommended dietary diversity in December 2020.
- As rapid household food insecurity (HFI) tracking has been identified as a priority in the context of COVID-19, <u>Agampodi et al.</u> explore the validity of the Latin American and Caribbean Food Security Scale among pregnant women in **Sri Lanka**. They found it to be feasible for effectively tracking HFI.

Earlier data and evidence collected (August 2020– March 2021)



- A peer reviewed journal article in *Nature Food* cites published literature and reports that summarise how disruptions to food systems due to COVID-19 have contributed to loss of income, reductions in social protection programming, and the ability of poor households to afford a healthy diet. It highlights how women are most affected (Carducci et al., 2021).
- The latest survey updates carried out <u>by 60 decibels</u>, <u>monitoring the impacts of COVID-19</u> across 19 countries, show that a greater proportion of women may experience decreased food consumption as a result of the pandemic, than men. Between October and November 2020, 33% of women reported a decrease in food consumption as a result of COVID-19 compared to only 25% of men.
- An assessment in Uganda and Kenya presents results from a rapid phone survey carried out in April 2020 which show that food security and dietary quality had worsened as a result of COVID-19. The proportion of food insecure respondents increased by 38% and 44% in Kenya and Uganda respectively as a result of COVID-19, while regular consumption of fruits decreased by about 30% during the COVID-19 pandemic, when compared with the pre-pandemic situation in both countries.
- An IFPRI modelling exercise projects that 150 million more people could have fallen into extreme poverty in 2020 due to COVID-19 (an increase of 20% from pre-pandemic levels). This will likely drive food insecurity and result in some substantial changes in patterns of food consumption, with adverse nutritional consequences. It is projected that consumers may shift their food purchases, buying fewer nutrient-dense (but more expensive) products and more calorie-rich and cheaper cereals and processed foods.
- In Public Health Nutrition, Kundu et al. aim to determine the associated factors of household food security (HFS) and household dietary diversity (HDD) during the COVID-19 pandemic in urban and rural **Bangladesh**. They find that households whose monthly income decreased as a result of the COVID-19 pandemic had lower HDD scores and HFS scores. Households reporting that they faced increased food prices due to COVID-19 had significant negative associations with HDD and HFS.
- Assessing the socioeconomic impacts of and responses to the pandemic among households and individuals in sub-Saharan Africa (**Ethiopia, Malawi, Nigeria and Uganda**), World Bank research (November 2020) finds that 61% of the adult population suffer moderate or severe food insecurity.
- IFPRI research finds that COVID-19 is having a distinct negative impact on the dietary diversity of mothers in **Myanmar** (November 2020).
- A study of eating habits and lifestyle behaviours among residents of the **MENA region** during the lockdown finds that 6.2% consumed five or more meals per day compared to 2.2% before the pandemic, with 30% of the respondents reporting weight gain (November 2020).
- Pakravan-Charvadeh examine the association of socioeconomic factors with food security and dietary diversity before and during the COVID-19 pandemic in **Iran** (October 2020). They find that food security improved during the initial COVID-19 pandemic period, while consumption of certain food groups decreased among poorer households.
- A rapid snapshot of adolescents' experience of COVID-19 in **Jordan** finds that 30% of adolescents report being hungry at least once in the past four weeks and 46% report that their meals were less likely to contain protein compared to before the pandemic (September 2020).
- An IFPRI time-series phone survey in Addis Ababa, **Ethiopia** (N=600) finds improvement in overall consumption but reduction in vegetable consumption continued into September 2020.
- An online cross-sectional survey (N=995) conducted in August 2020 across several localities in India assesses the impact of COVID-19 on behaviours using consumption scores. There was marginal improvement in healthy eating in terms of increased frequency of fruit and vegetable intake and consumption of pulses, egg or meat. The intake of unhealthy food items declined during COVID-19.
- Food crises and COVID-19 (September 2020) triangulates information from 15 country profiles between May and July 2020.
- Save the Children interviewed children and adults across 37 countries. Almost two-thirds (62%) of respondents said that they are finding it difficult to obtain meat, dairy products, grains, fruits and vegetables. The primary reason noted was cost. Per self-report, 89% of respondents find that COVID-19 has impacted their access to healthcare, medicine and medical supplies.
- The New York Times piece "The Other Way COVID Will Kill: Hunger", explores how and where the pandemic is likely driving increased malnutrition and food insecurity, e.g. "COVID has been yet another shock in what has been a terrible year in this region."
- The FAO food price index shows prices were up 2% in June year-on-year from 2019. Prices of coarse grains in August were generally in line with year-on-year averages.

• The International Food Policy Research Institute (IFPRI) August 2020 book COVID-19 & Global Food Security includes country-specific modelling and survey-based research findings and offers particularly pertinent chapters for nutrition: diets and nutrition, food security, gender, policy responses, and the future of pandemics and food systems. It emphasises that COVID-19 is likely to cause a dangerous decline in diet quality in LMIC countries.

2.3.2 Most recent sources

Title: The Impact of COVID-19 on Households in Nepal

Author or institution	World Food Programme, Nepal
Geographic focus	Nepal
Population focus	18 and over
Technical focus	Dietary Diversity, Food Price and Availability
Information type	Survey Report
Date published	March 2021
Date added	April 2021

Purpose/objective of source

To assess the impact of COVID-19 on food insecurity and livelihoods across Nepal over time. This is the third in the series of surveys conducted by WFP in 2020 (April, August and December).

Main nutrition-related findings

• The survey findings indicate gradual improvements in food consumption and dietary diversity. This is possibly as a result of increased availability from recently harvested summer crops; easing of restrictions and opening up of economic activities; as well as measures by the government and non-governmental organisations to support households whose food security and livelihoods have been most affected by COVID-19.

	December 2020	August 2020	April 2020
Percentage of households which had inadequate food consumption (less than 1800 Kcal per person per day)	16.8	20.2	23.2
Percentage of children 6-23 months NOT meeting the minimum recommended dietary diversity (MDD)	42.7	43.1	45.9
Percentage of households with poor dietary diversity	2.5	4.7.	7.2

Table 2: Changes in food consumption and dietary diversity during the COVID-19 Crisis in Nepal

Source: based on findings from WFP 2021b;

- The study suggests that a notable proportion of the population remains at risk of further deterioration in food security status.
 - While improvements have been observed between August and December 2020, the proportion of households with inadequate food consumption in December is still higher than four years ago, where the <u>Annual Household Survey V (2016/17)</u> indicated that 14.9% of households had inadequate food consumption.



- Among the 16.8% of the households with inadequate food consumption in December, 2.5% could not provide more than 1500 Kcal per day for each household member.
- The study also revealed that diet quality remains at risk:
 - The proportion of children not meeting the MDD has slightly improved between April and December 2020. However, these figures are not further elaborated, and it is not clear to what this improvement can be attributed, and if seasonality and other factors have played a role.
 - In December 2020, 2.7% of households reported that the food they had in stock was insufficient to meet their needs. This was mainly due to lack of money to buy food (by nearly 50% of households), but also due to inability to access markets or grocery stores. A higher prevalence of food insecurity was also found among households reliant on market purchase, but the study did not reveal the contribution of COVID-19 and related restrictions.

GESI observations

- Households with low education levels, vulnerable households with a member with disability, female-headed households, and households living in rural areas were found to be more food insecure.
- Food insecurity was more prevalent among daily wage labourers in both farm and off-farm sectors, as well as among migrant workers.

Quality of the data / evidence (method)

- The information was gathered from a nationally representative household survey conducted in the second half of December 2020, through live telephone interviews in all seven provinces using the random digit dialling method. A total of 4,526 households were interviewed, with an average success rate of 12.3% (the ratio of successfully completed surveys to total dialled numbers, with 36,530 total dialled numbers).
- The survey method followed a standard operating guideline, as described in Computer Assisted Telephone Interview (CATI) survey developed by WFP. It covered: i) demographics; ii) livelihood and income; iii) access to food and market; iv) food consumption; v) breastfeeding practices and diet diversity; vi) coping behaviours; and vii) health status and COVID-19 cases.
- Food consumption patterns were assessed using Food Consumption Score (FCS), a standard WFP indicator that uses information on food diversity, food frequency, and the relative nutritional importance of different food groups to measure food security. Results presented in the study may understate the extent of food insecurity in the country, as phone ownership is correlated with higher levels of food security. A dietary diversity score, described in <u>Food Consumption</u> <u>Score Nutritional Quality Analysis (FCS-N)</u>, was used.
- The causal link between COVID-19 and the measures to contain its spread has not been assessed in this study.

Title: A self-applied valid scale for rapid tracking of household food insecurity among pregnant women in Sri Lanka

Author or institution	Agampodi et al.
Geographic focus	Sri Lanka
Population focus	Pregnant women
Technical focus	Diet diversity and practices of women and children
Information type	Journal article (peer reviewed)
Date published	February 2021
Date added	April 2021
Purpose/objective of source	



To explore the validity of the Latin American and Caribbean Food Security Scale for tracking household food insecurity (HFI) among pregnant women in Sri Lanka.

Main nutrition-related findings

- In light of the COVID-19 pandemic, household food insecurity (HFI) has become a global health priority. Maternal and under-five malnutrition are expected to rise due to an increase in poverty and disruption to primary health and related services in the pandemic. HFI assessment tools are used for monitoring situations of households and therefore need to be validated across different modes of survey administration, particularly at a time where the COVID-19 pandemic has required social distancing.
- The self-administered Latin American and Caribbean Food Security Scale (ELCSA), comprised of eight sections, was adapted to the Sri Lankan setting. It was found to be clear to both experts and pregnant women, and would be useful for rapid HFI tracking during pregnancy in Sri Lanka.
- Many participants indicated on the questionnaire that a diverse food intake was not possible, due to lack of money or other resources. No women in the sample reported going for an entire day without eating. The severity scores of the ELCSA indicated that dietary diversity is compromised first, and that food intake reduction or hunger is the most severe manifestation of HFI.
- HFI derived from the ELCSA was significantly correlated with psychological distress.
- The tool was internally consistent (Cronbach's alpha = 0.79). The tool is considered to be valid and feasible to rapidly track HFI among pregnant women in Sri Lanka.

Knowledge gaps

• The items included in the ELCSA scale were not pregnancy-specific and could therefore be used to assess HFI in the general population. Further research might assess the external validity of this scale in other stages of life or to other populations of interest.

Quality of the data / evidence (method)

 In total, 328 pregnant women attended the special clinics and 269 responded to selfadministered questionnaires, representing a response rate of 82%. The fact that the questionnaire was self-administered gives reason to believe that social desirability bias (the tendency of survey respondents to answer questions in a manner that will be viewed favourably by others) may have been minimised.

2.3.3 Sources identified in previous months by TASC

Author or institution	60 decibels
Geographic focus	Global (Brazil, Cote d'Ivoire, Democratic Republic of the Congo, Ghana, India, Indonesia, Kenya, Madagascar, Myanmar, Nigeria, Paraguay, the Philippines, Rwanda, Senegal, Sierra Leone, South Africa, Tanzania, Uganda and Zambia)
Population focus	Households
Technical focus	Availability and price of nutritious food stuffs
Information type	Data
Date published	Updated March 2021
Date added	March 2021 (updated from earlier versions included by TASC and MQSUN)

Title: 60 decibels: Listening in the time of COVID-19

Purpose/objective of source

The objective of 60 decibels is to understand the impact of COVID-19 on the poorest people. It does this through a survey of two different population groups regarding the effects of the pandemic on their lives. The source aims to:

• Understand the impact of COVID-19 by speaking to those most likely to be affected—lowincome customers—to track how the crisis affects them over time, and to identify their most



urgent needs, both now and in the future. The nutrition-related findings described below relate to food consumption (surveying 25,423 people in 19 countries as of 24 January 2021).

• Provide information on the long-term effects on agricultural supply chains and global food systems (surveying 4,100 Kenyan farmers as of the latest survey in February 2021).

Main nutrition-related findings

Impact of COVID-19 on low income customers in the 19 countries surveyed

• Twenty percent of households reported a decrease in food consumption per person in the household between October and November 2020, as a result of COVID-19. In comparison, 10% of households have seen an increase during the same period. The countries most affected by a decrease in food consumption of the countries surveyed are **Madagascar** and **Rwanda** at 60% and 58% respectively.

Impact of COVID-19 on Kenyan farmers

- Changes in incomes: Between June 2020 and January 2021, 88% of Kenyan farmers reported being in a worse financial situation because of COVID-19, and 90% had used a financial coping mechanism. Rising input prices and fluctuating market prices are limiting farmers' profits, disposable income, and bargaining power for the upcoming season.
- Rising food prices: Food prices increased in February after a period of stabilization, with 78% of farmers reporting paying higher prices; the highest rate since June. Nonetheless, profits from increased food prices still have not made their way to farmers at the beginning of the supply chain. Instead, 61% of farmers have experienced a decrease in the price they receive for their livestock and/or produce due to the pandemic.
- Decreased food consumption: The proportion of farmers reporting decreased food consumption to cope with the pandemic has been on the rise since August, from 6% to 14% in January 2021. Based on data collected between June 2020 and January 2021, over 40% of farmers are relying on less-preferred food. About 30% are reducing portion sizes and number of meals they eat per day.

Knowledge gaps

There is no information as to whether diets are still of the same quality. Instead, the focus is solely on quantity.

GESI observations

- Ho usehold food consumption data across the 19 countries are available disaggregated by gender. Between October and November 2020, 33.2% of women reported a decrease in food consumption as a result of COVID-19, compared to only 25.4% of men.
- Agricultural impact data for Kenya are also disaggregated by gender. Some differences include women being more likely to report a worsened financial situation and request cash support, as well as being more likely to reduce product sales and less likely to use more expensive digital tools.

Quality of the data / evidence (method)

- For food consumption, 60 decibels survey customers of energy companies and microfinance institutions who have agreed to participate. The companies share their customer contact database and participants are randomly selected.
- There are multiple concerns relating to the survey design / methodology including: (1) only surveying customers with access to a certain service, particularly when aiming to survey low-income households; (2) weighting all countries evenly, irrelevant of size and number surveyed; (3) small sample sizes; and (4) lack of clarity around the selection method.

Title: <u>COVID-19 implications on household income and food security in Kenya and Uganda:</u> <u>Findings from a rapid assessment</u>

Author or institution	Monica K. Kansiime et al.
Geographic focus	Uganda and Kenya
Population focus	Households
Technical focus	Diets, food security



Information type	Article (peer reviewed)
Date published	January 2021
Date added	February 2021

Purpose/objective of source

To assess implications of the COVID-19 pandemic on household income and food security in Kenya and Uganda.

Most important nutrition findings

- Over two-thirds of the respondents experienced income shocks due to the COVID-19 crisis in March and April 2020. Food security and dietary quality worsened, as measured by the food insecurity experience scale and the frequency of consumption of nutritionally-rich foods.
- The proportion of food insecure respondents increased during the same period by 38% and 44% in Kenya and Uganda respectively as a result of COVID-19.
- The regular consumption of fruits decreased by about 30% during the COVID-19 pandemic, compared to the pre-pandemic situation in both countries.
- Farmers were less likely to experience worsened food security compared to other respondent categories who depended to a greater extent on market sources for food.
- Participation in national social security schemes was less likely to mitigate income shock during the COVID-19 period in both countries, while participation in savings groups was correlated with less likelihood of suffering income shocks and reduction in food consumption. Social networks were found to play a supportive role to family and friends, although this increased expenses and food consumption.
- Formal social protection mechanisms are highlighted as a means to smooth incomes and restore livelihoods in such situations.

GESI

 Income-poor households and those dependent on labour income were more vulnerable to income shocks, and had poorer food consumption during the COVID-19 pandemic compared to other respondent categories.

Quality of the data / evidence (method)

- This study is using online survey data from 442 respondents, and is based on information collected in April 2020.
- Data were collected using an online questionnaire launched via google forms. The questionnaire was sent to random respondents in Kenya and Uganda using social media (WhatsApp, Facebook, Telegram, and Twitter), and via email. The online questionnaire was open for 10 days from 18th to 27th April 2020 and focused on experiences since lockdown, which was approximately five weeks for both countries at the time the study was launched.
- The authors caution that "Given that we used a rapid online survey approach to obtain the data, it should be stressed that the sample is not representative of the two countries, and there is a possible bias towards the highly educated persons with access to the internet and smartphones. Nonetheless, it provides useful information for understanding the food security implications of the ongoing COVID-19 pandemic that is wreaking havoc worldwide."

Author or institution	IFPRI, Laborde et al.
Geographic focus	Global
Population focus	All
Technical focus	Diet diversity and practices AND availability and price of nutritious food stuff
Information type	Discussion paper
Date published	December 2020
Date added	January 2021

Title: Impacts of COVID-19 on Global Poverty, Food Security and Diets



Purpose/objective of source

This study assesses the impact of COVID-19 on poverty, food insecurity and diets, accounting for the complex links between the crisis and the incomes and living costs of vulnerable households.

Main nutrition-related findings

The simulations on poverty outcomes suggest the global recession caused by COVID-19 will be much deeper than that of the 2008-2009 financial crisis. Almost 150 million people might fall into extreme poverty and food insecurity, is an increase of 20% from pre-pandemic levels, which might also drive up food insecurity. Increases in poverty are projected to be concentrated in South Asia and sub-Saharan Africa, with more severe impacts in urban areas than in rural.

The scenario modelled by this report shows that at a global level, average household consumption of nutrient-dense, more expensive products may decrease, and the consumption of more calorie-rich and cheaper cereals and processed foods will increase.





Quality of the data / evidence (method)

- This report uses a global modelling framework, combining two economic modelling frameworks: IFPRI's global computable general equilibrium (CGE) model, MIRAGRODEP, and the POVANA household dataset and model. This allows for a focus on lower income countries and on people on lower wages within these countries.
- As part of the modelling a number of assumptions are made, such as that unskilled workers are harder hit than skilled workers by social distancing measures, and that governments in high-income countries have put in place economic stimulus measures, though these are all well disclosed.

Title: <u>Determinants of household food security and dietary diversity during the COVID-19</u> pandemic in Bangladesh	
Author or institution	Kundu et al., Public Health Nutrition
Geographic focus	Bangladesh
Population focus	Households
Technical focus	Diet diversity and practices AND availability and price of nutritious food stuffs
Information type	Peer reviewed article
Date published	December 2020



Date added January 2020

Purpose/objective of source

The study aimed to determine the associated factors of household food security (HFS) and household dietary diversity (HDD) during the COVID-19 pandemic in Bangladesh.

Main nutrition-related findings

HDD and HFS

- 41.5% of households reported high dietary diversity, 44.9% of households had medium dietary diversity and 13.6% of households had low dietary diversity.
- The households whose monthly income decreased as a result of the COVID-19 pandemic had lower HDD scores and HFS scores.
- Ho useholds who reported that they faced increased food prices due to COVID-19 had significant negative associations with HDD and HFS.

GESI/Social and demographic determinants of HDD and HFS

- Households from rural areas had lower HHD scores and HFS scores compared to households from urban areas.
- Respondents from lower socioeconomic status groups (e.g. day labourers, farmers) and households that do not have a refrigerator had lower food security scores compared to their counterparts.
- Overall, the findings suggest that households with lower socioeconomic status have fewer capabilities and resources to produce their food, which can lead to an increase in food insecurity and decrease in dietary diversity. This points to the importance of tracking diet-related policies and practices (e.g. access to a variety of foods) during times where households are under additional strain.

Methodology

The results represented here were based on a data collected through an online survey and face-to-face interviews. For this cross-sectional study, 1876 households have been recruited. The Household Food Security Scale and Household Dietary Diversity Score were used to access HFS and HDD, respectively. The HDD scores were derived from a 24-h recall of food intake from 12 groups.

Author or institution	Josephson et al. (World Bank)
Geographic focus	Ethiopia, Malawi, Nigeria, and Uganda
Population focus	Adults
Technical focus	Dietary Diversity and Practices (including Food Security)
Information type	Policy Research Working Paper
Date published	November 2020
Date added	December 2020

Title: Socioeconomic Impacts of COVID-19 in Four African Countries

Purpose/objective of source

To assess the socioeconomic impacts of and responses to the pandemic among households and individuals in sub-Saharan Africa.



Main nutrition-related findings

Estimates of food insecurity

- Estimates of food insecurity were based on the Food Insecurity Experience Scale (FIES) used the
 standard survey model which asks about whether respondent or adult household members (i) were
 worried they would not have enough to eat, (ii) were unable to eat healthy and nutritious food, (iii) ate
 only a few kinds of foods, (iv) had to skip a meal, (v) ate less than they thought they should, (vi) ran
 out of food, (vii) were hungry but did not eat, and (viii) went without eating for a whole day. The FIES
 is one of two indicators used for measuring progress toward achieving Sustainable Development
 Goals 2.1 (which relates to ending hunger and ensuring food access).
- 61% of the adult population, representing more than 100 million adults across all four countries, are
 estimated to suffer moderate or severe food insecurity. Severe food insecurity alone affects an
 estimated 38 million adults, or 23% of the adult population. Poorer households (in lower quintiles)
 suffer significantly greater prevalence of food insecurity Since the pandemic began, female-headed
 households have significantly higher prevalence of moderate and/or severe food insecurity than maleheaded households, though food insecurity is decreasing over time at an equal rate for adults in both
 types of households.

Estimates of moderate or severe food insecurity by country during the pandemic

- Nigeria: 76% of adults (63 million)
- Malawi: 68% of adults (6.2 million)
- Ethiopia: 47% of adults (24 million)
- Uganda: 33% of adults (6.9 million)

Estimates of income Loss (affecting household economy, particularly food security)

• 77% of the population across the four countries are estimated to live in households that have lost income due to the pandemic. Female-headed households are significantly more likely to lose income from remittances while male-headed households are significantly more likely to lose income from other sources, including from investments, savings, pensions, and government assistance. Attempts to cope with this lost income are exacerbated by an inability to access medicine and staple foods for an estimated 20% to 25% of households who need these items

Quality of data

- These findings are based on the longitudinal data from the high-frequency phone surveys conducted in Ethiopia, Malawi, Nigeria, and Uganda with support from the World Bank. Starting monthly in May 2020, the phone surveys aim to interview a national sample of households that had been interviewed face-to-face prior to the COVID-19 pandemic as part of the national longitudinal household surveys that have been supported under the World Bank Living Standards Measurement Study – Integrated Surveys on Agriculture (LSMS-ISA) initiative.
- The authors directly measured the effects of the pandemic on 8,603 households across the four countries, as well as how households attempt to cope with these effects. They subsequently used reduced-form econometric techniques (10 which are common to the field), to estimate heterogeneity in effects across 1) countries, 2) rural and urban sectors, 3) pre-COVID-19 wealth, 4) gender, and 5) time.

Title: Poverty, food insecurity, and social protection during COVID-19 in Myanmar: Combined evidence from a household telephone survey and micro-simulations

Author or institution	Headey et al. (IFPRI)
Geographic focus	Myanmar
Population focus	Young children and pregnant mothers
Technical focus	Dietary Diversity and Practices, Social Protection
Information type	Research Study/Policy Note
Date published	November 2020



Date added Dec

December 2020

Purpose

To assesses the welfare impacts of COVID-19 on households in Myanmar by combining recent high-frequency telephone survey evidence on incomes, coping strategies, and food security with national-level survey-based simulations that were designed to assess ex-ante impacts on poverty with differing amounts of targeted cash transfers to poor households.

Main nutrition-related findings

- Income-based poverty rose at an alarming rate between August and October 2020. Income losses
 were generally higher in urban households compared to the rural Dry Zone household due to the
 stricter prevention measures in cities; the greater dependence of urban households on non-farm
 livelihoods which were more affected by prevention measures; and the significant number of mothers
 in this sample who had recently given birth. The poor continue to cope with declining incomes mainly
 by resorting to loans or other credit sources, while better off households draw down on their savings.
- Food insecurity and inadequate maternal dietary diversity are rising sharply in the urban households raising serious concerns for the nutritional status of mothers and young children. In the wake of the first wave, 28% of mothers in June reported not eating enough healthy food, and 30% had inadequately diverse diets. Food insecurity indicators improved somewhat in July and August, but deteriorated sharply again in September and October, while the share of urban mothers with inadequate diverse diets rose from 30% in June to around 50% from August to October. As dietary diversity metrics are strong predictors of micronutrient adequacy, the data trends suggest rising risks of micronutrient deficiencies in urban areas, both for women and potentially for their children.
- Over half of the survey households received government cash assistance of 20,000 Myanmar Kyat (about US\$18) through one-off maternal and child cash transfers (MCCT) in September. However, accurate targeting of these transfers remains a problem. There is low uptake of the MCCT for pregnant mothers introduced in September 2020. In October, only 16 percent of pregnant mothers' sample had received these payments. Simulation results suggest that, even with perfect targeting, 20,000 Myanmar Kyat transfers have only moderate impacts on severe poverty during lockdowns. Larger transfers during lockdowns may be advisable. This may also improve compliance with stay-athome orders.



Figure 3. Trends in food insecurity and poor maternal dietary diversity from June to October 2020 in urban and peri-urban Yangon

Knowledge gaps

Targeting of one-off maternal and child cash payments

Urban and non-poor non-mothers are substantially more likely to receive the MCCT payments transfers than are rural and poor mothers. Further research is needed to assess why this is the case. It is possible that awareness of eligibility for these transfers is a major constraint, as well as problems in providing proof of pregnancy (the main eligibility criteria) or in accessing the mobile app to receive the one-off payment.

Quality of the data

The study combines data from the phone based COVID-19 Rural and Urban Food Security Survey (C19-RUFSS) - which consists of four rounds of monthly data collected from a sample of over 2,000 households, all with young children or pregnant mothers, divided evenly between urban and peri urban Yangon and the rural Dry Zone – with simulation based evidence, derived by applying parameter shocks to household models developed from nationally representative household survey data, namely the 2015 Myanmar Poverty and Living Conditions Survey (MPLCS).

Title: Assessment of Eating Habits and Lifestyle during Coronavirus Pandemic in the MENA region: A Cross-Sectional Study

Author or institution	Ismail et al., The British Journal of Nutrition
Geographic focus	MENA Region (18 countries in the study)
Population focus	Age 18 years and older
Technical focus	Dietary Diversity and Practices
Information type	Journal Article (Peer reviewed)
Date published	November 2020
Date added	December 2020

Purpose/objective of source

To assess eating habits and lifestyle behaviours among residents of the MENA region during the lockdown in April 2020.

Main nutrition-related findings

The research, conducted through an online questionnaire, examined sources of health and nutrition information, eating habits, sanitizing groceries brought into the home, physical activity and weight gain, stress levels and sleep patterns. Sources of health and nutrition information, eating habits and weight gain are described below.

Sources of health and nutrition information

• Social media applications where the most common sources for health and nutrition information (70.3% and 70.8% respectively), followed by local and international health authorities for health-related information (53.9%) and healthcare professionals for nutrition information (41.3%)

Eating Habits During Lockdown

- The percentage of participants consuming five or more meals per day increased from 2.2% before the pandemic to 6.2% during the pandemic. The percentage of participants skipping meals decreased from 64.4% before the pandemic to 45.1% during the pandemic.
- 48.8% of surveyed participants did not consume fruits on a daily basis, and 32.5% did not consume vegetables daily.
- 44.1% of participants reported consuming sweets or desserts at least once every day and 32.9% consumed salty snacks (chips, crackers, and nuts) daily.

Additionally, 30% of respondents reported gaining weight during the lockdowns.

Methodology applied

- Data were collected through a cross-sectional, online survey, conducted in the Greater Middle East region between 15 April 2020 and 29 April 2020.
- The sample of 2,970 people was drawn from eighteen countries within the MENA region, including Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates and Yemen.



Title: <u>The short-term effects of COVID-19 outbreak on dietary diversity and food security status of</u> <u>Iranian households (A case study in Tehran province)</u>

Author or institution	Pakravan-Charvadeh et al. (Journal of Cleaner Production)
Geographic focus	Iran
Population focus	Households (all ages)
Technical focus	Dietary Diversity and Practices
Information type	Journal Article (cross-sectional study)
Date published	October 2020
Date added	December 2020

Purpose/objective of source

To examine the association of socioeconomic factors with food security and dietary diversity before and during the COVID-19 pandemic in Tehran province, Iran.

Main nutrition-related findings

Food security

Food security of Iranian households improved during the initial COVID-19 pandemic period, which
may be related to households' efforts to purchase and store needed foods. Key socioeconomic
factors associated with food insecurity during the COVID-19 pandemic included personal savings,
household income, employment status of head of household, and nutrition knowledge of head of
household.

Dietary Diversity

- Households reduced consumption of some food groups (white roots and tubers, dark green leafy
 vegetables, other fruits, organ meat, legumes, nuts and seeds, sweets, spices, condiments, and
 beverages) during the COVID-19 pandemic compared to the pre-COVID-19 period. Household size,
 head of household's occupation, personal savings, and number of male children were significantly
 associated with dietary diversity.
- Distributing free food baskets to poor households, extending e-marketing, providing nutrition consultations, and organising donations to support infected households may increase household dietary diversity and improve food security status during a pandemic such as COVID-19

Quality of data/method

A cross-sectional analysis using both retrospective and current situations was used for this study
including an online questionnaire completed by 299 respondents from 292 families. The questionnaire
covered two different periods: 1) before the COVID-19 outbreak (household conditions in February
2020) and 2) during the onset of the COVID-19 pandemic (March 2020). Data from the questionnaire
was used to calculate the food insecurity and dietary diversity scores of the households as well as the
association of socioeconomic factors, household characteristics, and nutrition knowledge with the
changes of households' dietary diversity and food insecurity.

Author or institution	Gender and Adolescence Global Evidence (GAGE)
Geographic focus	Jordan
Population focus	Adolescents including vulnerable Jordanians, Syrians and Palestinians and located in camps (Azraq, Zaatari and Gaza), as well as host communities and informal tented settlements (ITS) in Amman, Mafraq, Irbid, Jerash and Zarqa.

Title: Adolescents' experiences of COVID-19 and the public health response in Jordan



Technical focus	Dietary diversity and dietary practices, the availability and price of nutritious foodstuffs,
Information type	Factsheet
Date published	September 2020
Date added	December 2020

Purpose/objective of source

This factsheet aims to show a rapid snapshot of adolescents' knowledge and attitudes towards covid-19 in Jordan and to present key findings on the impact of COVID-19 across GAGE's capability domains: education and learning; health, nutrition and sexual and reproductive health; psychosocial well-being; economic empowerment; voice and agency; and bodily integrity.

Main nutrition-related findings

Interviews with adolescent boys and girls between May and July revealed the following:

- Rates of food insecurity are high, with 30% of adolescents reporting being hungry at least once in the past four weeks and 15% indicating that this has increased since the start of the pandemic.
- Moreover, 46% of adolescents reported that their meals were less likely to contain protein compared to before the pandemic. Of particular concern are high rates of decreased protein among older married females (55%) when compared to their unmarried female peers (43%). Rates of decreased protein are higher for non-Jordanians (48%) than Jordanians (32%), and highest among those in ITS (51%) compared to those in host communities (48%) and camps (41%). The results on decreased protein by adolescents are corroborated by the primary female caregivers (PFCs) who report cutting back on the amount of food or number of meals served to adolescent boys (50%) and adolescent girls (46%).
- Moreover, PFCs of non-Jordanian adolescents reported higher rates of cutting back meals to boys (51%) and girls (47%) than those in Jordanian households (41% and 39%, respectively).
- There are also disruptions to health services, with 62% of households that needed healthcare and 38% of households surveyed that needed medication reporting that COVID-19 disrupted their ability to access these.

Quality of the data/method

• This factsheet presents findings from GAGE's ongoing longitudinal survey in Jordan, which follows 4,100 adolescent boys and girls in two cohorts (ages 10–12 and 15–17 at baseline in 2018/2019). The data presented in this fact sheet was gathered during the COVID-19 pandemic and subsequent school closures between 18 May and 21 July 2020 through phone or through virtual sessions.

2.3.4 Information collected under MQSUN+

Protect a Generation

Author or institution:	Save the Children
Geographic focus:	Global & Regional
Technical focus:	Diet, Food price and availability, Nutrition intervention delivery
Information type:	Informal
Date published:	September 2020
Date added:	September 2020

Save the Children interviewed 8,069 children between 11 and 17 years old and 17,565 adults across 37 countries, all beneficiaries of their programmes, with a majority in Asia and sub-Saharan Africa. Key nutrition relevant findings include:



- Almost two thirds (62%) of respondents said that they are finding it difficult to provide their families with meat, dairy products, grains, fruits and vegetables. The primary reason noted was cost.
- The vast majority (89%) of respondents reported that COVID-19 has impacted their access to healthcare, medicine and medical supplies.

2.4 Availability and price of nutritious foodstuffs

2.4.1 Summary overview

This section tracks and summarises the most recent data and evidence on the availability and price of nutritious food. Where relevant, it also includes source descriptions which expand on the impact of price and availability of other foods and on food security, as these may affect diet quality of households, mothers and children.

The source descriptions are organised in chronological order. An overview of all the sources which have been summarised under this section can be found in box 4.

Box 4. List of sources on the impact of COVID-19 on the availability and price of nutritious food

Impact of COVID-19 on the availability and price of nutritious food

Most recent data and evidence (added in April 2021)

- Innovations for Poverty Action (IPA) (2021) examine the multi-dimensional impacts of COVID-19 in Bangladesh with specific focus on food security, nutrition and mental health (July and December 2020). The pandemic has further jeopardised food security among vulnerable households and the food consumption of both adults and children reduced significantly. Twenty-one percent of respondent adults reported skipping meals in the past week in July compared to 7% pre-closures, whereas 18% of children reported the same compared to 10% pre-closures.
- <u>Narayan and Saha</u> assess the consequences of the nationwide lockdown (March-May 2020) on urban food markets in **India** up to August 2020. They find that overall food prices increased since the lockdown, with smaller cities registering sharper increases in retail prices compared to larger cities. Supply shocks to food markets were more powerful during the lockdown than previously assumed, especially in the short term, leading to increased food prices.
- The FAO's quarterly <u>Crop Prospects and Food Situation global report summarises some of the</u> recent developments affecting food security across the globe. It highlights the need for external food assistance in a total of 45 countries, including 34 in **Africa** and nine in **Asia**. An estimated 33 million people need humanitarian assistance in East Africa alone, mainly in **Ethiopia, South Sudan** and **Sudan**, where COVID-19 has exacerbated vulnerabilities.
- A joint FAO-WFP analysis of countries and situations where acute food insecurity is likely to deteriorate over the coming months identifies 20 'hotspots' affected by conflict, economic shocks, COVID-19 impacts, weather extremes and disease. Afghanistan, Burkina Faso, the Central African Republic, the Democratic Republic of the Congo, Ethiopia, Haiti, Honduras, Nigeria, the Sudan, South Sudan, the Syrian Arab Republic, Yemen and Zimbabwe are countries of particular concern given existing food crises, insufficient food consumption and acute malnutrition among some populations.
- An infographic by the IPC demonstrates that the COVID-19 pandemic and measures put in place to curb the spread of the virus have been the predominant drivers of high levels of acute food insecurity across countries in **Southern Africa**. This is along with high food prices and declining economies, characterised by increasing unemployment and low income. Around 45 million people in the region are facing high levels of acute food insecurity, including 19.6 million people affected in the DRC alone.
- A brief from WFP reports on the socioeconomic effects of the COVID-19 pandemic in the Kyrgyz Republic. This includes rising unemployment, reduced purchasing power due to higher prices, and the reduction or loss of income from remittances, which jeopardises food security. As a result of economic hardships due to the pandemic, 44% of households have cut food costs by decreasing their food consumption and/or by opting for less nutritious food options.
- A joint FAO, FEWS NET and WFP report outlines the market situation in **West and Central Africa**. In 2020, international food prices recorded the largest average annual increase since 2014. In 2021, food prices have increased by 4.7% when compared to December 2019. These price increases are



attributed to a higher demand and soaring freight costs caused by the COVID-19 pandemic. Some prices are projected to increase further, threatening the food security of vulnerable households already affected by COVID-19.

- The FAO reports on the effects of the COVID-19 pandemic (among other disasters and crises) on agriculture and food security. COVID-19-related restrictions have disrupted both supply and demand of agro-food products, greatly affecting smallholder farmers and vulnerable rural populations in many LMICs. Farmers face difficulties in accessing the inputs, resources and services they need to ensure their food security, due to disruptions in the supply chain. Smallholder farmers and vulnerable rural populations have been particularly badly affected.
- The latest Food Price Monitoring and Analysis (FPMA) Bulletin from FAO summarises the latest food price trends and issues domestic price warnings. It highlights how the prices of most staples across different regions of the world remain higher than those of the previous year, partly due to the COVID-19 pandemic.

Earlier data and evidence collected (August 2020-March 2021)

- A global assessment of the impact of COVID-19 on food systems stresses that there is still a
 relatively poor understanding of the actual impact of the pandemic on people's food security and
 nutrition. However, current information suggests that accessibility is the dimension of food security
 most affected by the COVID-19 pandemic. More specifically, disruptions in financial and physical
 access to food, especially in urban areas and in LMICs (Béné et al., 2021).
- The most recent data collected by the World Bank High Frequency Monitoring Dashboard (measuring socioeconomic impact of COVID-19) reveals that in **Mongolia**, 15% of households reported eating less than they thought they should do due to lack of money in December 2020. Meanwhile 33% of the households were unable to eat healthy/nutritious or preferred food.
- The most recent data collection of the High Frequency Monitoring in **Nigeria** (January 2021) reveals that most households experienced increased food prices between January 2020 and January 2021: for rice (79% of households), beans (87%), and yams (88%). About 88% of households who needed child health services in January 2021 were able to access them.
- In **Ethiopia**, evidence from the High Frequency Monitoring surveys shows that, overall, more households in urban areas (16-28%) reduced their food consumption between April 2020 and January 2021, compared to in rural areas (10%). This is likely explained by a greater engagement in subsistence farming in the latter.
- The most recent price data from the COVID-19 Food Price Monitor shows decreases of more than 10% in maize prices in **Kenya** and **Rwanda**, but an increase of over 15% in **Tanzania**, since COVID-19 related social distancing measures were put in place. Rice prices decreased in Uganda and Tanzania, and the price of beans also decreased in Tanzania and Kenya.
- Egger et al. report on the effects of the COVID-19 pandemic on food security in nine LMICs between April and June 2020. During the survey period, between 9 and 87% (median share, 45%) of respondents reported being forced to miss or reduce meals. Contrasts with previous seasonal patterns revealed that these reported changes in food insecurity were caused by the pandemic.
- A World Bank brief on food insecurity during the COVID-19 pandemic estimates that global food prices rose by almost 20% between January 2020 and January 2021. Higher retail prices, combined with reduced incomes, mean an increasing number of households are having to cut down on the quantity and quality of their food consumption.
- Nchanji and Lutomia report on the changes in food security of bean farmers in 11 **sub-Saharan African** countries, caused by the COVID-19 pandemic. In Eastern Africa, 15% of farmers report facing food shortages during the pandemic. Decreased farm outputs and incomes were reported as a cause of reduced access to food.
- A blog by Lain et al. indicates that disruptions to food supply chains and widespread loss of income due to the COVID-19 pandemic have decreased access to food in Nigeria. However, the extent of this impact differs depending on the approach applied. The blog explores the discrepancies between two measures of food access in Nigeria, the Food Insecurity Experience Scale (FIES) and the Food Consumption Score (FCS).
- The Food Price Monitoring and Analysis (FPMA) Bulletin provides some interesting information on how COVID-19 might impact food prices at country level. Findings include the effects of stagnant production, limited imports, and demand, on the domestic price increases of rice in **Bangladesh**. In **Ghana** and **Nigeria**, the impacts of COVID-19 related restrictions on the supply chain and trade flows of coarse grains have contributed to relatively high prices.



- Nordhagen et al. report how the pandemic and associated control measures affected and are affecting the operations of food micro-, small, and medium-sized enterprises. They find that negative impacts were greatest for those working in value chains for legumes, dairy, and vegetables.
- Country-level analysis by FEWS NET shows that reduced household disposable income and food market uncertainties have increased household food insecurity in Uganda and Rwanda. In Kenya, rising food prices and new COVID-19 restrictions are prolonging acute food insecurity for many households, especially for poor urban households.
- Updates to a surveying exercise by 60 decibels reveals that 20% of households reported a decrease in food consumption as result of COVID-19 between October and November 2020. In comparison, 10% of households have seen an increase. This represents a considerable improvement since May 2020, where 36% of households had seen a decrease since the previous month.
- An IPC infographic detailing current and projected malnutrition and food security figures at a subnational level within **Somalia**, suggests that up to 2.7 million people across Somalia are expected to face high levels of acute food insecurity (IPC Phase 3 or above) through mid-2021, in the absence of humanitarian assistance. In addition, approximately 840,000 children under the age of five are likely to become acutely malnourished, including nearly 143,000 who are likely to be severely malnourished (with relation to January-June 2021 snapshot).
- Early results from the World Bank's series of rapid response phone surveys are summarised in a recent blog. They indicate declining employment levels, income losses, worsening food security, and loss of human capital across **sub-Saharan Africa**.
- The most recent data collected for **Kenya's** High Frequency Monitoring Dashboard (measuring socioeconomic impact of COVID-19 in the country) reveals that in January 2021, adults and children in urban and rural households skipped meals during a period of at least two days in the week prior to 18 January, 2021.
- GAIN'S latest situation report on the Impact of COVID-19 on Food Systems stresses the continuing impacts of COVID-19 on food systems in selected countries. It shares that of the countries surveyed, Nigeria, Ethiopia, and Mozambique are currently at most risk of food and nutrition insecurity as a result.
- FAO's latest Food Price Monitoring and Analysis (FPMA) Bulletin reports further increases in the international prices of wheat and other major coarse grains, reaching record highs in markets in **Sudan and South Sudan**.
- In BMJ Open, Das et al. assess the extent and determinants of food insecurity and short-term coping strategies adopted by households in **Bangladesh** following the lockdown. The prevalence of severe food insecurity was significantly higher in urban households (42%) compared to rural households (15%). Coping mechanisms included consuming fewer food items or changing food habits.
- The World Food Programme assesses the impact of COVID-19 and the restriction measures that were put in place to contain the pandemic in the 15 countries in Economic Community of **West African** States (ECOWAS) region. Over 90% of all households report a rise in food prices, while urban and rural household food stocks were lower in 2020 compared to 2019.
- In Agricultural Systems, Boughton et al. report the initial impacts of measures taken to contain the COVID-19 pandemic on Myanmar's agri-food system. They suggest that additional social protection will likely be required to avoid severe food insecurity and malnutrition among vulnerable households.
- In Frontiers in Nutrition, Knoor and Khoo discuss several food and nutrition-related challenges encountered during the COVID-19 pandemic, including consumer and food behaviour, malnutrition and nutrient intakes as well as potential post-COVID-19 strategies with the objective to stimulate robust scientific discussions on existing research gaps and to develop long-term "exit strategies" to prepare for future pandemics.
- A model estimates the effects of COVID-19 on **Papua New Guinea's** food system. The data explores potential scenarios with some negative implications on household consumption.
- The December edition of WFP's COVID-19 Emergency Situation Report indicates that an increasing (estimated) number of people worldwide are becoming acutely food insecure as a result of the compounding effects of COVID-19.
- WFP Global Update on COVID-19: November 2020 reports that between June and November acute food insecurity increased mostly in Latin America and the Caribbean, Asia and the Pacific, and "Middle East, Central Asia and North Africa".



- A blog on crowdsourced data in Nigeria reveals that the COVID-19 pandemic and related lockdown measures have disrupted food systems leading to fluctuations in the prices of some food commodities affecting the affordability of nutritious foodstuffs.
- A WFP report on hunger, migration and displacement provides insights on how COVID-19 and related measures are impacting migration patterns directly and indirectly, with consequential impacts on livelihoods potentially leading to additional hunger and increased food insecurity.
- The FAO-WFP early warning analysis of acute food insecurity hotspots observes food price increases since the start of the pandemic. These are exacerbating food crises in a number of countries.
- A study on food insecurity in tribal high migration communities in **Rajasthan** provides interesting insights in the food availability and prices during the COVID pandemic.
- Proceedings of an FAO conference on COVID-19 and its Impact in Africa in Rome highlights that affordable healthy diets will be out of reach for a larger number of people in 2020 due to COVID-19.
- A journal article estimates the effects of COVID-19 pandemic on food commodity prices and nutrition security in Nepal.
- A UNICEF report on the Middle East and North Africa regions (Algeria, Egypt, Jordan, Morocco, Qatar, Syria, Tunisia) covers the impact of confinement and lockdown measures on children's social life and mental wellbeing, access to distance education during school closures, and children's health and nutrition, the main focus of this summary.
- A survey on the effect of COVID-19 on food security in **Jordan** aimed to assess the impacts of COVID-19 on household food security in Jordan during the first four weeks of the lockdown. This includes the prevalence of food security and food insecurity, risk factors associated with food insecurity, and main food groups associated with food insecurity during the lockdown.
- In Cox's Bazar, **Bangladesh**, access to food assistance has been insufficient for Rohingya refugees, particularly single mothers, households headed by persons with disabilities, pregnant and lactating women, the elderly and children.
- Save the Children's press release reports on a household economic survey in several countries which shows access to healthy and nutritious food is becoming increasingly difficult across the region.
- Global Food Prices (October 2020 prices published by FEWS NET on 13 October 2020) report international grain prices showed a strong increase globally in September.
- The Food Crises and COVID-19 provides information on food prices. Prices of premium items like fruit and meat fall as demand falls, though prices also depend on local lockdowns. Extreme events (disease, conflict) also have a large effect on food prices, and it is difficult to distinguish these from the effects of the COVID-19 restriction.
- Several assessments of global food prices are provided through the Famine and Early Warnings Systems Network (FEWS NET) (July 2020 prices published by FEWS NET on 31 August 2020) and Global Food Prices June).
- IFPRI's COVID-19's Short-term Impacts on Economies, Food Systems and Poverty in **African** and **Asian** Countries: Economywide Estimates from Economywide Models traces direct and indirect effects along and across supply chains. It reveals substantial but varying levels of GDP losses during lockdown, depending on policy design/implementation and exposure to global markets.

2.4.2 Most recent sources

Title: Impacts of the Pandemic on Vulnerable Households with Children in Bangladesh

Author or institution	Innovations for Poverty Action (IPA)
Geographic focus	Bangladesh
Population focus	Households with children
Technical focus	Food security
Information type	Policy brief



Date published	February 2021
Date added	April 2021

Purpose/objective of source

To examine the persistent and multi-dimensional impacts of COVID-19 on household well-being at two distinct points in time: July 2020, two months after the end of general lockdown in Bangladesh, and December 2020, five months later.

Main nutrition-related findings

• The pandemic has jeopardised food security among vulnerable households. Over 90% of households in the study reported eating less preferred foods, and nearly the same percentage reported reducing the number of meals consumed or meal sizes.



Figure 4: Number of meals skipped in the past week, in children and adults. (Source: Innovations for Poverty Action (IPA), 2021)

- Adult respondents reduced their own food consumption significantly, while children were also reported to eat less than they did prior to the pandemic (see Figure 4).
- Household coping strategies have an effect on the quality of the diets, although clear improvements in diet quality can be seen between July and December 2020. As such, 75% of the households indicated that they were eating less preferred and less expensive food in the last 30 days to cope with reduced incomes in December 2020 (compared to 92% in July). While 59% reduced the number or sized of meals in December (compared to 87% in July). In July, 57% borrowed money/food from friends or family, which did not change much by December (58%).

GESI observations

- Forty percent of mothers report having decreased decision-making power relative to before the closures, with 14% reporting having more. Nearly 40% of mothers interviewed also report facing more violent or abusive behaviour from their husbands two and five months after the end of general lockdown, compared to pre-COVID times.
- Two-thirds of mothers report symptoms consistent with depression (ranging from mild to severe), based on their responses to the PHQ-9 inventory (PHQ-9 Scores = 8), with one-third reporting symptoms consistent with moderate, moderately severe, or severe depression. Despite a reduction in economic stress, the study observed that self-reported mental health status was worsening among mothers who were surveyed in both July and December 2020.



Quality of the data / evidence (method)

• Researchers conducted two rounds of phone surveys in July 2020 and December 2020, with 3,125 vulnerable households with children across seven regions of Bangladesh. Households were identified based on their decision (or intention) to enrol one or more children at a non-profit school, The total number of children interviewed in July was 1,805, and 3,563 in December, as well as their household members.

Author or institution	Narayan and Saha, Global Food Security
Geographic focus	India
Population focus	General
Technical focus	Availability and price of nutritious foods
Information type	Journal article (peer reviewed)
Date published	March 2021
Date added	April 2021

Title: Urban food markets and the COVID-19 lockdown in India

Purpose/objective of source

To assess the consequences of the nationwide lockdown (March-May 2020) on urban food markets in India up to August 2020, focusing on wholesale and retail food prices; and to determine whether smaller towns and urban centres experienced comparable price changes to larger cities.

Main nutrition-related findings

Overall (as of 1 August 2020), food prices increased since the lockdown (from 24 March-31 May 2020), with significant diversity across commodities and cities.

• Retail and wholesale prices increased immediately after the lockdown started (following a twomonth downward trend in retail prices). Prices declined slightly in June after the lockdown lifted, but then continued to rise until the end of the data collection period on 31 July.

Figure 5: Retail and Wholesale Food Price Index in India pre- and post-lockdown



Source: Narayan and Saha, 2021

- During the first four weeks of lockdown, average price increases in both food retail and wholesale were over 6% for several pulses; over 3.5% for most edible oils; and 15% for potatoes, compared to prices during the four weeks preceding the lockdown. There was significant diversity in price rises across commodity types and across geographies (i.e. smaller towns and large urban centres).
- Prices for tomatoes increased by 28% the first four weeks of lockdown, although this increase does not appear to have been sustained.
- Smaller cities registered sharper increases in retail food prices than the average increases across all of India (Figure 6 below). Relative to the Retail Food Price Index (RFPI) on the eve of the lockdown, the RFPI rise was as high as 20% in some centres, with others seeing RFPI decline by 5%. The rise in RFPI at rates more than 15% occurred disproportionately among small towns and Class 1 cities/towns.

Figure 6: Smaller cities have seen steeper than average increase in retail food prices



- Interviews with around 50 food retailers (grocery retailers "kirana stores", retailers of fresh
 produce with temporary stands or pushcarts on streets, as well as meat retailers), on supply
 bottlenecks indicated there was evidence of significant supply disruptions relating to both the
 availability of supplies and transportation. Retailers of fresh produce seemed particularly
 constrained during the lockdown. They had difficulty sourcing fresh produce from wholesale
 markets as locations and opening times shifted unpredictably or wholesale supplies were
 insufficient. By the third round of interviews after the lockdown lifted (June 26-July 9, 2020), these
 constraints seemed to have eased, yet the supply of fresh produce continued to be a problem.
- Other operational challenges for food retailers during lockdown included labour shortages, difficulty obtaining transport, decreased demand, higher cost of supplies, and harassment from police/others for operating out of restricted hours or without a "moving pass" permit.
- Authors conclude that supply shocks to food markets were more powerful in the lockdown than previously assumed, especially in the short term, leading to increased food prices.
- In response to food retail challenges during lockdown, many new initiatives emerged. Examples
 include farmers delivering produce directly using WhatsApp to obtain aggregated orders in
 housing societies (Pawar and Dastane, 2020); the "Harvest the Farm" agritech platform by
 Ninxjakart which helps farmers to harvest, distribute and sell their produce; and other not-for profit
 and for-profit initiatives that work to restore broken links in the food supply chain.

Quality of the data / evidence (method)

- Authors analyse retail and wholesale prices of 22 major food items from 114 urban centres across India, using publicly available data published daily.
- Authors construct and assess food price indices, whereby they calculate a weighted average food
 price for each centre for each date, drawing on commodity weights used routinely by the Indian
 government to compute the Consumer Price Index (CPI) to track inflation. As the CPI for Food of
 the Government of India however comprises a larger basket of 78 food commodities, the index
 computed by the authors includes only a subset of these commodities for which data are publicly
 available. Additionally, authors draw on three rounds of surveys with food retailers, conducted by
 student volunteers from 21 locations in 14 centres across the country. These capture the
 experiences of urban food retailers while also documenting prices of select commodities. All data
 was gathered between 24 March and 31 July 2020.
- Smaller towns and urban centres were defined as "Class 1 cities / towns and 'small' cities" and large cities as "Megacities and million-plus cities".

Author or institution	FAO
Geographic focus	Global
Population focus	All
Technical focus	Availability and price of nutritious foodstuffs
Information type	Report
Date published	March 2021
Date added	April 2021

Title: Crop Prospects and Food Situation

Purpose/objective of source

To provide a review of the food situation by geographic region and a list of countries requiring external assistance for food.

- In the East African sub-region, an estimated 33 million people are in need of humanitarian assistance, mainly in Ethiopia, South Sudan and Sudan. This is 20 percent higher on a yearly basis. These effects on food security are due to the impact of the COVID-19 pandemic, widespread floods and desert locust outbreaks. Food prices remained high due to COVID-19-related restrictions, which hindered livelihood activities and cross-border trade.
- For Ethiopia in particular, localised crop and pasture losses due to locust infestations, high food prices, and the negative impact of the COVID-19 pandemic on incomes and food prices has led to food insecurity for an estimated 12.9 million people between January and June 2021.
- About 5.82 million people (48 percent of the total population) are estimated to be severely food
 insecure during December 2020-March 2021 in South Sudan. This is due to insufficient food
 supplies, an economic downturn, high food prices, widespread floods and the negative impact of
 COVID-19-related restrictions. Prices of maize and sorghum in the capital, Juba, remained three
 times higher than in previous years by January 2021. This is due to a difficult macro-economic
 situation, inadequate domestic supplies, the lingering effects of the conflict and the introduction of
 COVID-19 screening measures at border points in Uganda.
- An estimated 2 million people were food insecure between September 2020 and January 2021 in select regions of Uganda. Even in more traditionally food secure urban areas like the capital, Kampala, more than 600,000 people are food insecure due to COVID-19-related restrictions. The socioeconomic impacts of the pandemic are also evident in urban areas in Kenya, where one million people are estimated to be food insecure.
- An estimated 2.62 million, 2 million and 441,000 people are assessed as food insecure and in need of humanitarian assistance between October 2020 and March 2021 in Malawi, Zambia and

Namibia, respectively. This is despite large cereal harvests in Malawi and Zambia, and an adequate food supply in Namibia. The COVID-19 pandemic has affected access to food through income losses.

- Income losses associated with the pandemic and shortfalls in staple food production has led to an
 estimated 2.9 million people in need of urgent humanitarian assistance up until March 2021 in
 Mozambique.
- In the Far East sub-region, food insecurity worsened due to income losses and reductions in remittances, due to COVID-19-relted restrictions. In Bangladesh, it is estimated that the food security of around 860,000 Rohingya refugees has deteriorated due to the pandemic.

Quality of the data / evidence (method)

 Global Information and Early Warning System (GIEWS) monitors crop prospects and the food security situation at global, regional, national and sub-national levels and warns of impending food difficulties and emergencies. Crop Prospects and Food Situation is published by the Markets and Trade Division of FAO under GIEWS.

Author or institution	FAO, WFP
Geographic focus	Global
Population focus	All
Technical focus	Availability and price of nutritious foodstuffs
Information type	Report
Date published	March 2021
Date added	April 2021

Title: Hunger Hotspots FAO-WFP early warnings on acute food insecurity

Purpose/objective of source

To provide an early warning analysis of countries and situations where acute food insecurity is likely to deteriorate over the coming months.

- In Northern Nigeria, both food security and nutritional status are expected to deteriorate, with 13 million people projected to be experiencing high levels of acute food insecurity between June and August 2021. This is as a result of ongoing conflict and economic factors aggravated by the secondary effects of COVID-19.
- Projections in the Democratic Republic of Congo (DRC) indicate that close to five million people will be categorised under emergency levels of acute food insecurity between January and June 2021. Overall, the DRC is estimated to have 19.6 million food insecure people during this period (the highest number worldwide in the January-June 2021 period), as a result of multiple shocks including violence, natural hazards, epidemics, economic decline and the socioeconomic impacts of COVID-19.
- In Sudan, food prices remain exceptionally high due to a deteriorating economic crisis compounded by the socioeconomic effects of COVID-19. Alongside intercommunal clashes, this is anticipated to keep levels of acute food security high in a country where 1.3 million people were already estimated to be in emergency levels of food insecurity from October to December 2020.
- In both Liberia and Sierra Leone, food insecurity has been driven up by the COVID-19 pandemic and its secondary socioeconomic consequences, such as increased unemployment in the informal sector and a drop in remittances. Food prices increased by over 40% on average in 2020, compared to the five-year average; impacting food access and food security of vulnerable households. Cereal production estimates are down by 54% and 15% in Liberia and Sierra Leone respectively, compared to their five-year averages. This is due to factors including the COVID-19 related restrictions on market access and people's mobility, which hindered farming activities.

- Climate hazards, desert locusts, conflict and the COVID-19 pandemic are projected to drive high levels of acute food insecurity in Somalia in 2021. Reduced incomes and increased food prices due to the pandemic continue to limit food access. About 400,000 people face emergency levels of food security in the country, and about 2.7 million people (about 20% of the population) face crisis levels of food insecurity or worse between April and June 2021.
- Weather shocks and macroeconomic instability, worsened by the effects of the COVID-19
 pandemic, continue to drive food insecurity in Zimbabwe. Households will remain vulnerable as
 lockdown measures have been reintroduced, which disrupt the flow of goods, employment,
 income and prices, thereby constraining access to food. About 3.4 million people are projected to
 face high acute food insecurity from January to June 2021.

Quality of the data / evidence (method)

- The main sources of data on acute food insecurity (current and projections) are the Integrated Food Security Phase Classification and the Cadre Harmonisé.
- In some countries the IPC/CH were not conducted and therefore the Famine Early Warning Systems Network (FEWS NET) IPC-compatible analysis was used to derive estimates of food insecurity.
- WFP's open-access Hunger Map used actual data on insufficient food consumption to inform trend analysis.
- Data is missing for some countries of high concern such as Myanmar.

Author or institution	IPC
Geographic focus	Southern Africa
Population focus	Households
Technical focus	Availability and price of nutritious foodstuffs
Information type	Infographic
Date published	March 2021
Date added	April 2021

Title: SADC: IPC Acute Food Insecurity Phase Classification Snapshot

Purpose/objective of source

To report on the classifications of the severity of food insecurity in the Southern African Development Community (SADC) region.

- In the SADC region, the COVID-19 pandemic and measures put in place to curb the spread of the virus have been the predominant drivers of high acute food insecurity. This is along with high prices for food commodities and declining economies characterised by increasing unemployment and low income.
- Forty-five million people, out of 188 million analysed, are classified in IPC Phase 3 or above, meaning they are marginally able to meet minimum food needs but only by depleting essential livelihood assets or through crisis / emergency coping strategies. Prevalence of acute malnutrition is also high.
- In DRC, 19.6 million people are classified as highly acutely food insecure, driven by conflict, economic decline and the COVID-19 pandemic. In South Africa, 11.8 million people are classified as highly acutely food insecure, mainly due to COVID-19 related drivers including increasing unemployment and economic decline. Those classified as experiencing emergency levels of food insecurity are 4.9 million people in DRC and 2.2 million people in South Africa.
- About 582,000 people in Lesotho (40% of the population) were projected to be in the high acute food insecurity category between October 2020 and March 2021, a 14-percentage point increase from July to September 2020. This is driven by the COVID-19 pandemic, and the measures put in



place to curb it, through impacts such as increases in unemployment, and reductions in income and purchasing power.

 Mozambique was estimated to have 2.1 million people facing high acute food insecurity between January and March 2021, mainly due to armed conflict, drought and the impact of the COVID-19 pandemic on economic activity. In Zambia, 1.73 million people were estimated to face high levels of acute food insecurity with the pandemic, dry spells and flooding in select areas reducing the capacity of households to access food. In Zimbabwe, 3.4 million people were estimated to be in the high acute food insecurity category, caused by drought, reduced livelihood opportunities due to restrictions linked to COVID-19, pests and disease, and high food prices.

Quality of the data / evidence (method)

• This data has been produced by the National IPC Technical Working Groups for IPC population estimates. IPC estimates are those published in country IPC reports.

Author or institution	WFP
Geographic focus	Kyrgyz Republic
Population focus	Households
Technical focus	Availability and price of nutritious foodstuffs
Information type	Brief
Date published	February 2021
Date added	April 2021

Title: Food security situation in the Kyrgyz Republic

Purpose/objective of source

To define the impact of the pandemic on the country's socioeconomic context, including food prices and access to food.

Main nutrition-related findings

- The COVID-19 pandemic has had many negative socio-economic effects in Kyrgyzstan, including
 rising unemployment, reduced purchasing power due to higher prices, and the reduction or loss of
 income from remittances, which jeopardises food security.
- Due to the COVID-19 crisis, about two-thirds of Kyrgyz migrants (63%) have reported losing their jobs. Both migrants remaining abroad and returning home are at risk of becoming food insecure.
- Prices of main staples like wheat and flour have increased by 25-30% since 2019, which has hampered access to food. The Consumer Price Index (CPI) on average has increased by 17.3% for cereals, meat, fish, milk and dairy products, fruits and vegetables.
- According to the latest impact assessment on COVID-19, as a result of economic hardships, 44% of households have cut food costs by decreasing their food consumption and/or by opting for less nutritious food options.

Quality of the data / evidence (method)

• Sources for this brief include intergovernmental and multinational organisations working in Kyrgyzstan such as IOM, UNICEF, The World Bank, WFP and OECD.

Title: Market situation in West and Central Africa

Author or institution	FAO, FEWS NET, WFP
Geographic focus	West and Central Africa



Population focus	Households
Technical focus	Availability and price of nutritious foodstuffs
Information type	Report
Date published	March 2021
Date added	April 2021

Purpose/objective of source

To report on the market prices of staple foods across countries in West and Central Africa.

Main Nutrition-Related Findings

- In 2020, international food prices recorded the largest average annual increase since 2014. In 2021, food prices increased by 4.7% compared to December 2019. These price increases are due to a higher demand and soaring freight costs caused by the COVID-19 pandemic.
- In the study region, critical food price increases were observed, largely as a result of restrictive measures put in place to curb the spread of the virus. Additionally, in 2020 some food insecurity was caused by farmers holding onto their stock given the uncertainties of the COVID-19 pandemic. The prices of all foodstuff, except meat, rose in January 2020.
- **Ghana** experienced increases between 10% and 40% for all commodities in April 2020, due to the restrictive measures put in place to curb the spread of the virus.
- The price of both local and imported rice, the staple food in **Sierra Leone**, remained higher than the five-year average at 60% to 70%, depending on the region, and 30% to 40% in annual variation. For cassava, the country's second most important staple, in annual variation, prices tripled on average nationally, with increases of 300% at the beginning of the COVID-19 pandemic.
- As countries have been hit by a second wave of COVID-19, new restrictive measures
 implemented in multiple countries in 2021 are likely to affect the purchasing power of vulnerable
 populations due to drops in income and rises in food prices, thereby deteriorating food and
 nutrition security in the region.
- Price projections for the month of July 2021 show a relatively alarming situation on the markets upward trends continue, and some commodities could see their prices double compared to normal, making them inaccessible to vulnerable households whose incomes are already hard hit by COVID-19.

Knowledge gaps/Areas of further research

 The report focuses on the price of staples. Further study could be carried out on the prices of nutritious foods specifically.

Quality of the data / evidence (method)

 Food price data are mainly obtained from the WFP, with some additional data obtained from the FAO, FEWS NET and the World Bank.

Author or institution	FAO
Geographic focus	Global
Population focus	All
Technical focus	Availability and price of nutritious foodstuffs
Information type	Report
Date published	March 2021

Title: The impact of disasters and crises on agriculture and food security: 2021



Date addedApril 2021

Purpose/objective of source

To report on the impact of disasters on the agricultural sector and food security, including the impact of the COVID-19 pandemic on the agriculture sector and food production.

Main nutrition-related findings

- COVID-19 containment measures have disrupted both supply and demand of agro-food products, greatly affecting smallholder farmers and vulnerable rural populations in many low and lower-middle-income countries. Farmers face difficulties in accessing inputs, resources and services they need to ensure food security, caused by disruptions in the supply chain.
- Agricultural exports have faced both demand disruptions and supply-chain issues during the
 pandemic. In Kenya, the market for exported vegetables, nuts, coffee and cocoa were all affected
 to varying degrees. Though the main cocoa harvest in West Africa (providing 60 percent of the
 world's cocoa) was complete by the time of lockdowns, export restrictions alongside demand and
 price reductions could lead to a lost value of up to US\$ 2 billion, and affect two million farmers in
 Ghana and Côte d'Ivoire.
- In many countries, many services related to agricultural value chains have been restricted due to the pandemic. In Bangladesh, disruptions to the transport system are leading to the dumping of perishable goods, and large price reductions are affecting food security for rural producers.
- In Somalia, restrictive measures related to the pandemic were predicted to cause a 30-50% decline in livestock exports and remittance flows; a 20-50% increase of imported food prices; and a 20-30% decline of income among poor urban households and internally displaced persons.
- Fragile and conflict-affected countries such as Yemen face compounding challenges that affect food security. Key food items such as fruit, vegetables and fresh milk were increasingly scarce, exacerbating the country's already critical levels of malnutrition. In the world's largest refugee settlement in Cox's Bazar, Bangladesh, Rohingya refugees who are already highly vulnerable and food insecure lost their jobs, livelihoods and subsequently their incomes due to movement restrictions.

Quality of the data / evidence (method)

- Technical inputs for this report were provided by various divisions and offices within the FAO, including the Natural Resources and Sustainable Production Stream, the Economic and Social Development Stream, the Office of Emergencies and Resilience and the Office of Climate Change, Biodiversity and Environment. The FAO country and regional offices gathered national-level data where available.
- Production of the report was coordinated by the Statistics Division of FAO.

Author or institution	FAO
Geographic focus	Global, with a focus on Argentina, Bangladesh, Brazil, Kyrgyzstan, Nigeria, South Sudan, Sudan, Tajikistan and Zimbabwe.
Population focus	Households
Technical focus	Availability and price of nutritious foodstuffs
Information type	Report
Date published	March 2021
Date added	April 2021

Title: Food Price Monitoring and Analysis (FPMA) Bulletin #2

Purpose/objective of source



To report on and analyse food price trends at world, regional and country level, with a focus on developing countries (on a monthly basis).

Main nutrition-related findings

- In Bangladesh, prices of rice held steady in February and were much higher than those of the previous year; 40% higher in Dhaka. A continuous increase in rice prices in the preceding 11 months in Dhaka was due to tight market availabilities, limited imports and strong d emand amid the COVID-19 pandemic.
- Prices of wheat flour in both Kyrgyzstan and Tajikistan in February were above the previous year's levels, following increases in March-May 2020. These were caused by an upsurge in consumer demand due to concerns over the COVID-19 pandemic and export limitations in Kazakhstan, the main wheat supplier to the two countries.
- In West Africa, prices of domestically produced coarse grains strengthened in February and were generally higher than those of the previous year. The second wave of the COVID-19 pandemic led to the reintroduction of restrictions which constrained economic activities, supporting increasing prices.
- In East Africa, the prices of coarse grain in most countries were below those of the previous year. As economic activities slowed with the pandemic, household purchasing power deteriorated, thereby reducing domestic demand. Demand has remained stagnant even with the phasing out of restrictive measures. In Sudan, however, prices of sorghum and millet were exceptionally high in February due to a weak currency and COVID-19-related restrictions, resulting in transportation bottlenecks, fuel shortages and high agricultural input prices.

Knowledge gaps/Areas of further research

• Further study could explore price trends for a variety of nutritious foods (e.g. vegetables, fruit, pulses, dairy, meat and fish), alongside staple foods.

Quality of the data / evidence (method)

- The report uses the real FAO food price index to compare historic food prices to current prices.
- Data used in the analysis comes from the Food Price Monitoring and Analysis Tool, a database that includes over 1,400 monthly domestic retail and/or wholesale price series of major foods consumed in 94 countries, and weekly/monthly prices for 81 internationally traded foods.

2.4.3	Information	collected	in previous	months	by TASC	
-------	-------------	-----------	-------------	--------	---------	--

Title: Impacts of COVID-19 on people's food security: Foundations for a more resilient food system		
Author or institution	Béné et al., IFPRI	
Geographic focus	Global (62 countries, mainly LMICs)	
Population focus	All ages	
Technical focus	Availability and price of nutritious food – and food security	
Information type	Peer reviewed research report	
Date published	February 2021	
Date added	March 2021	

Purpose/objective of source

To conduct a global assessment (based on a literature review) of the impact of COVID-19 on food systems and their actors. Focusing specifically on the consequences of disruptions due to the pandemic on food security and nutritional status.

Main nutrition-related findings

Despite the attention from the scientific community that the COVID-19 crisis has received so far, the authors conclude there is still a relatively poor understanding (both quantitatively and qualitatively) of the actual impact of the pandemic on people's food security and nutrition. The following is known:

- The dimension of food security that has been most affected is accessibility. There is reasonably solid evidence suggesting that both financial and physical access to food have been disrupted, in particular in urban areas and in LMICs. Disruptions to physical access to food was shown to affect proximity and convenience. Combined with the reduction in affordability caused by shrinking incomes, this eventually led to less food choice and diversity.
- The main issues affecting food access, based on the authors' reviews of 26 peer-reviewed articles, include:
 - Degradation in the choice and diversity of food items available to households (due to the lockdown, reduction of mobility, and closure of some of their usual food suppliers).
 - Increase in relative food prices (partially due to the closure of the usual [informal] food suppliers/outlets, and/or price increases in food outlets remaining open).
 - Disruption in accessing food (due to the lockdown and restriction in mobility).
 - Loss or reduction of consumers' income and associated purchasing power (due to the closure or reduction in their own business or that of their employers).
- Beyond some initial disruptions due to panic buying, there is no clear evidence that the availability of food has been affected. There is insufficient information to make robust conclusions about the effects of the pandemic on the utilisation of food (safety or quality).
- Overall, food systems were resilient to shocks during the pandemic and no major episodes of severe food shortage were observed. Yet a large part of that resilience resulted simply from the special status of the larger actors, including grocery stores and supermarkets, as "essential services", This allowed them to continue operating while many other economic sectors had to shut down. This resilience, however, came at the cost of hundreds of thousands of smaller or informal food system actors who disappeared during the crisis.

Gender Equity and Social Inclusion

 Among all the documents reviewed, authors found that factors such as "increased abuses against marginalised individual or groups" or "gender discrimination" received little to no attention.

Information gaps

- The authors found that the impact of COVID-19 on the nutritional status of people (so far conceptualised as the impacts on children of disruptions in economic access to food) is still poorly documented but expected to be substantial in the long run.
- Authors state that "the power (im)balances between formal and informal actors, the (dis)connections between food systems stakeholders, the critical role of women, youth and marginalised groups in food systems, etc. are all essential information and must be better understood if we want to be in a position to strengthen the resilience of the food systems."

Quality of the data / evidence (method)

- Literature review based on 337 documents identified between October and December 2020. The selected documents described the effects of COVID-19 in 62 different countries (33% from Africa, 22% from Asia, 5% from Europe, 5% Oceania, and 35% from the Americas).
- The largest number (48%) of documents included were technical reports, information/facts sheets or similar policy briefs issued by international expert groups and academic institutions. The second most frequent type of documents (34%) were blogs and grey literature posted by authors with cognitive authority, but which did not always rely on transparent or rigorous data collection protocol. Only 18% of the articles included were peer-reviewed.

Webinar

• This document was presented during the webinar "Food systems lessons from COVID-19: From understanding fragilities to building resilience".

Title: COVID-19 high frequency monitoring dashboard

Author or institution	The World Bank
Geographic focus	50 countries



Population focus	All population
Technical focus	Food security/Intervention delivery
Information type	Dashboard
Date published	January to March 2021 (Accessed on 17 March 2021)
Date added	March 2021 (This is an update from the earlier source description by TASC)

Purpose/objective of source

To offer an interactive dashboard which allows the measurement of the socioeconomic impacts of COVID-19 in 50 countries.

Nutrition related findings

• The World Bank's High Frequency Monitoring Dashboard contains harmonised, comparable information on over 96 indicators. It measures impacts of COVID-19 across 14 key topics, for 50 countries in all developing regions. Topics include food security, changes in employment, income loss, access to safety nets, access to health services, and household coping strategies.

Selected recently published data on Mongolia indicate that:

- In December 2020, 15% of households surveyed ate less than they thought they should do due to lack of money. Meanwhile 32.5% of households were unable to eat healthy/nutritious or preferred food due to lack of resources.
- In the same month, 30% of households in the country could not receive medical attention when needed due to COVID-19 restrictions (stay at home orders).

In Nigeria, the most recent data collection (January 2021) indicated increases in food prices.

- Seventy-nine percent of households indicated that rice prices increased between January 2020 and January 2021. Moreover, 87% and 88% of households respectively reported rising prices of beans and yams during the previous year.
- "While rising food prices could benefit net producers, many households may be experiencing a loss of purchasing power, as they have to purchase food items too."
- In January 2021, households were asked about their need for specific medical services and their ability to access those services. About 88% of households who needed child health services were able to access them.



Figure 7: Access by households to medical services in Nigeria (January 2021)

Source: Nigeria COVID-19 impact monitoring round 9 (January 2021)

In Ethiopia, the last round of the high frequency phone survey was also implemented in January 2021. Some key findings related to this tracker:

- About half of rural households experienced reductions in total income at the onset of the pandemic in April 2020, with income from farming activities reduced for one in four rural households. However, the loss in income and disruptions in agricultural activities can also be attributed to the 2020 locust invasion. About 11% of those whose incomes have reduced, have reduced food consumption as a coping strategy.
- More households in urban areas (16-28%) are affected by reduced food consumption than in rural areas (10%). This is likely explained by a higher reliance on subsistence farming in rural areas.
- The authors conclude that rural Ethiopia, where 80% of Ethiopians reside, has been resilient to the impacts of COVID-19. The largest adverse impact was felt in the early months of the pandemic, but these losses in farming activities and income recovered quickly. The most important source of government support was through the Productive Safety Net Programme. This supported the largest

share of households, particularly during the early months of the pandemic, when it provided more than half of all assistance.

Quality of the data / evidence (method)

- Data and findings are from the World Bank's High Frequency Mobile Phone Surveys of Households to Assess the Impacts of COVID-19. Some limitations of phone-based surveys are acknowledged including: (i) selection bias driven by a large, yet selected segment of the population owning a mobile phone; (ii) non-response bias (that often worsens over the duration of a phone survey); (iii) heterogeneity in mobile phone coverage, across geographies and population groups; and (iv) limited scope for verifying accuracy of answers.
- In <u>Nigeria</u>, the first round (baseline) of the survey was conducted in April/May 2020, when a federally mandated lockdown was in full effect. Although the government lifted restrictions in the summer of 2020, by the time the ninth round was conducted in January 2021, some restrictions – including on large gatherings – had been reintroduced to combat rising COVID-19 cases.
- In Ethiopia, 3,249 households were interviewed in nine different rounds between April 2020 and January 2021. This consists of a sub-sample—households with access to a phone—of those interviewed in 2019 for the Ethiopia Socioeconomic Survey, which covers urban and rural areas in all regions of Ethiopia. Phone penetration in rural Ethiopia is low: about 40 percent of rural households have access to a phone, compared to over 90 percent of urban households. This not only means the rural sample is smaller, but there is also a systematic difference between households with access to a phone and those without. Phone-owning households are better off in terms of total consumption, educational attainment, access to improved water and sanitation, access to assets, and access to electricity. The sample of the HFPS-HH is therefore representative only of households that have access to phones in urban and rural Ethiopia.

Author or institution	Food Security Portal Facilitated by IFPRI	
Geographic focus	India, Guatemala, Rwanda, Kenya, Tanzania, Uganda, and Burundi	
Population focus	Markets	
Technical focus	Food price and availability	
Information type	Data Portal	
Date published	March 2021	
Date added	March 2021	

Title: COVID-19 Food Price Monitor

Purpose/objective of source

To provide daily updates of prices in wholesale and retail markets for a wide range of food products, allowing tracking of changes in food prices since the start of COVID-19 related social distancing measures.

Main nutrition-related findings

- **Maize prices**: compared to before COVID-19 related social distancing measures were implemented, the price of maize has decreased in the Kampala Market, Uganda, and Meru Market, Kenya. The wholesale and retail prices decreased by 16% and 32% respectively in Kampala, and 12% and 18% in Meru. Rwanda has also experienced decreases in maize prices in Kamembe, Mulindi and Rubavu markets. On the other hand, the Ruhengeri market in Rwanda has experienced a high increase in maize prices, over 15%. This is also the case in the Dar es Salaam market in **Tanzania**.
- **Rice prices**: since COVID-19 related measures were put in place, the price of rice decreased in the Kampala, Dar es Salaam and Ruhengeri markets. However, rice prices increased moderately (515%) in the Muzzafarnager market in India and other markets of Rwanda.
- Bean prices: prices of yellow beans in Tanzania, and red and black beans in Kenya, decreased compared to pre-COVID-19 prices. The price of yellow beans is 8% lower than before, while retail prices of red and black beans have decreased by 14% and 51% respectively in the Meru market.

Quality of the data / evidence (method)



• For the East African countries, data is obtained from the Regional Agricultural Trade Intelligence Network (RATIN).

Title: Falling living standards during the COVID-19 crisis: Quantitative evidence from nine developing countries

Author or institution	Egger et al., Science Advances	
Geographic focus	Burkina Faso, Ghana, Kenya, Rwanda, Sierra Leone, Bangladesh, Nepal, Philippines and Colombia	
Population focus	All, including marginalised groups (refugees)	
Technical focus	Food price and availability; Interventions	
Information type	Journal Article (peer reviewed)	
Date published	February 2021	
Date added	March 2021	

Purpose/objective of source

To provide a quantitative description of the economic effects of COVID-19 among various subpopulations in a sample of nine LMICs.

Main nutrition-related findings

- The study reveals that by April 2020, many households could not meet their basic nutritional needs. Due to the COVID-19 pandemic, 48% of rural Kenyan households, 69% of landless agricultural households in Bangladesh, and 87% of rural households in Sierra Leone were forced to either miss meals or reduce portion sizes. This greatly exceeded the food insecurity characteristic of the time of year as verified by pre-existing baseline data.
- Reduced levels of employment, income, access to markets and services contributed to increased levels of food insecurity.
- During the survey period, between 9 and 87% of respondents were forced to miss or reduce meals (median share, 45%). These rates varied according to the country, but were high in Kenya and Sierra Leone. In Kenya, there was a proportional increase of 38% and 69% in the rate of missed meals for adults and children respectively (from March to June 2020). In Sierra Leone, the proportion of respondents reporting reduced portion sizes was 86% and 68% for adults and children respectively (2019-June 2020).
- Between April and May 2020, food expenditures rose by 11% in Kenya and 6% in Sierra Leone. In Sierra Leone, the increased expenditures appeared to be a result of higher food prices, which on average increased by 19%, rather than greater consumption. Prices in Kenya remained quite stable over the same period.
- Food insecurity during the COVID-19 period were contrasted to the natural seasonal patterns observed in previous years for Nepal and Bangladesh. Food security spikes are evident preharvest seasons during regular years. The rate of food insecurity was significantly higher in Bangladesh in April 2020, twice what it was in previous years, due to the COVID-19 crisis. Notably, in both Nepal and Bangladesh, the pandemic occurred during the usually favourable post-harvest period.
- Receipt of social support in response to economic shocks has been mixed in the study populations. Across samples, between 0% and 49% of respondents reported benefiting from government or NGO crisis support (median of 11%).

Gender Equity and Social Inclusion

• There is little evidence suggesting that variations in food insecurity are systematic, whether by socioeconomic or refugee status, though levels of food insecurity were found to be generally higher for respondents of lower socioeconomic status.



• Food insecurity was reported to be higher among refugees in Kenya compared to the national sample. However, in the Rohingya camps in Bangladesh, food insecurity was reported to be lower than in the surrounding communities. This could be due to the presence of international humanitarian organisations, as Rohingya refugees report the highest rates of assistance. Even with this assistance, 27% of the Rohingya sample reported food insecurity.

Quality of the data / evidence (method)

- The findings are based on a telephone survey with a total sample of 33,370 households. It was carried out between April and June 2020, after the outbreak of COVID-19 and before the initial implementation of government lockdowns or other social distancing policies. The results are from 16 samples in nine LMICs. Nine samples in four countries were constructed from pre-existing studies. These were representative of specific subsamples including formal and informal sector workers, agricultural labourers, small business enterprises, refugees, migrants, and their families (from which the authors had additional baseline data on living standards for these samples before COVID-19). The samples were randomly drawn to be statistically representative of the population of interest.
- For the sample constructed from existing studies, the household was the unit of focus. This means the effects are not all disaggregated, for example by gender.
- Six other samples were drawn via random phone digit dialling. This skews the sample toward mobile phone owners, who are wealthier and better educated.
- Due to the constraints of survey work during the pandemic, surveys were carried out over the phone. This could mean the samples may not be nationally representative.

Title: Food Security and COVID-19

Author or institution	World Bank
Geographic focus	Afghanistan, Angola, Bangladesh. Bhutan, Haiti, India, Kenya, Kyrgyz Republic, Liberia, Pakistan, Rwanda, Senegal, Sierra Leone and Tajikistan
Population focus	All
Technical focus	Food price and availability
Information type	Brief
Date published	February 2021
Date added	March 2021

Purpose/objective of source

To discuss rising food insecurity during the COVID-19 pandemic and describe the World Bank responses to date.

- The World Bank estimates that global food prices rose by almost 20% between January 2020 and January 2021. This high inflation of food prices reflects supply disruptions due to COVID-19 social distancing measures, currency devaluations and other factors. Higher retail prices, combined with reduced incomes, mean an increasing number of households are having to cut down on the quantity and quality of their food consumption.
- COVID-19 is estimated to have drastically increased the number of people facing food insecurity in 2020. Rising food prices have a greater impact on people in LMICs, since they spend a larger share of their income on food than people in high-income countries.
- Countries affected by conflict and at greatest risk of food insecurity in the coming months are Afghanistan, Burkina Faso, Democratic Republic of Congo, Ethiopia, Haiti, Niger, Nigeria, Somalia, South Sudan, Yemen and Zimbabwe. The World Bank is supporting many of these countries. For instance, In Afghanistan COVID-19 prevention measures have disrupted planting, leaving farmers unable to sow their crops on time. At the same time, food prices are rising in urban areas, with shortages in the food supply becoming more urgent. The World Bank is funding initiatives to increase local food production.



Quality of the data / evidence (method)

• The brief cites data from the WFP, the World Bank's Famine Action Mechanism, and the World Bank's COVID-19 High-Frequency Monitoring Dashboard.

Title: Regional impact of COVID-19 on the production and food security of common bean smallholder farmers in sub-Saharan Africa: Implication for SDGs

Author or institution	Nchanji and Lutomia, Global Food Security
Geographic focus	Eleven countries in sub-Saharan Africa
Population focus	Bean farmers in rural areas
Technical focus	Food price and availability
Information type	Journal Article (peer reviewed)
Date published	March 2021 (available online, will be officially published in June 2021)
Date added	March 2021

Purpose/objective of source

To document the impacts of the COVID-19 pandemic and containment measures between March and April 2020, on bean production and food security in eleven countries in sub-Saharan Africa.

Main nutrition-related findings

- The article highlights COVID-19 related restrictions as a driver of food insecurity. For example, border restrictions hindered cross-border trade of food and related inputs in countries like Kenya, where 15% of imported food before the pandemic was sourced from countries that imposed export restrictions due to COVID-19.
- In the Eastern Africa sub-region, 15% of farmers reported facing food shortages during the pandemic (March to April 2020). However, country-specific variations in reporting were observed. For example, 47%, 22% and 19% of farmers in Uganda, Kenya and Tanzania respectively indicated that their food consumption patterns changed during the COVID-19 pandemic. All Ugandan farmers surveyed indicated eating only once a day during the pandemic, while 80% of Kenyan farmers reported eating twice a day.
- In the **Southern Africa** sub-region, about 80% of farmers in Lesotho reported changes in food consumption due to the pandemic. In Zimbabwe, 50% of farmers reported changes in food consumption, while in Zambia 40% of farmers did. These differences are attributed to varying levels of COVID-19 related restrictions.
- The authors conclude that the pathways of the pandemic's impact on food security begin at farm level, where access to inputs and finance is limited due to the pandemic. This then impacts households, due to loss of income, and unstable availability and access to food.

Knowledge gaps/ areas for further research

- Further research can be carried out to quantify changes in food consumption rather than simply indicating a change. Furthermore, it is important to study changes in the quality of diet to understand whether consumption of smaller quantities is balanced with more nutritious foods.
- Disaggregating data by gender would provide further information on whether all farmers are affected the same.

Quality of the data / evidence (method)

- Data was collected from March to April 2020, from 291 bean farmers in rural areas through webbased surveys, face-to-face, and mobile phone discussions. The identification and selection of a farmer in any rural area depended on availability via phone, access to the WhatsApp app, and physical presence in some cases.
- The method of identification could lead to selection bias, leaving a sample of farmers that may not be representative of the population. The farmers included were those readily available, which could leave out lower income farmers without access to phones or the internet, or farmers who could have been working when surveys were conducted.
- There is no data on consumption patterns prior to the pandemic. The article reports consumption during the pandemic or whether a change has occurred, but without information on prior consumption, changes cannot be quantified.



• The study relied on self-reporting by farmers across different mediums. Comparisons of the results by medium would aid in observing any patterns of possible misreporting.

Lain et al.	
Nigeria	
Households	
Food price and availability	
Blog	
February 2021	
March 2021	
r F F	

Title: How should we measure food security during crises? The case of Nigeria

Purpose/objective of source

To review the approaches in measuring food access in Nigeria.

Main nutrition-related findings

Disruptions to food supply chains and widespread loss of income due to the COVID-19 pandemic have worsened food access in Nigeria. However, defining the extent of this impact differs depending on the approach applied. This blog explores the use of two measures and highlights the differences.

Socioeconomic differences

- The Food Insecurity Experience Scale (FIES) shows roughly equal shares of the population as having poor food access by consumption decile, including the richest income decile. Approximately 18% of the richest decile has poor food access according to the FIES, compared to 26% in the poorest decile.
- On the contrary, the Food Consumption Score (FCS) identifies that food access varies by income, with the poorest households having borderline access. Approximately 10% of the richest decile is FCS poor, compared to 42% in the poorest decile.

Geographical differences

 According to the FIES, food insecurity was more prevalent in the south than in the north, while the FCS indicates higher monetary poverty and food access in the north. The findings of the FCS are corroborated by other sources.

Conclusions:

- The authors conclude that the FIES, on which the measurement of food access has been reliant, may not have correctly identified the food insecure populations in the country.
- The authors recommend measuring food access in crisis with the FCS and other measures of dietary diversity. These should be used in conjunction with other indicators from the high-frequency surveys and other types of data to best triangulate the degree to which food access is declining, and the potential causes of the decline.

Knowledge gaps/ areas for further research

Further investigation can be carried out to determine precisely why the FIES does not match
other indicators of food insecurity. Similar comparisons made in the blog can be carried out in
other contexts to compare to the results found in Nigeria.

Quality of the data / evidence (method)

- Data for this blog was obtained from the Nigeria Living Standards Survey (NLSS) 2018/2019, the Humanitarian Data Exchange and World Bank.
- Reasons for the discrepancies between the FIES and FCS are not clear. However, there is an
 indication that the differences can be due to the subjectivity of the questions which the FIES is
 based on. Further evidence shows that striking north-south differences appeared in all of the
 FIES' constituent questions, and not just the more subjective questions.
Title: Food Price Monitoring and Analysis (FPMA) Bulletin #1

Author or institution	FAO
Geographic focus	Global with focus on Argentina, Bangladesh, Brazil, Kyrgyzstan, Nigeria, South Sudan, Sudan, Tajikistan and Zimbabwe
Population focus	Households
Technical focus	Food price and availability
Information type	Report
Date published	February 2021
Date added	March 2021

Purpose/objective of source

To report and analyse monthly on food price trends at world, regional and country level, with a focus on developing countries.

Main nutrition-related findings

This document provides a wealth of information on food prices. Below, changes in food prices as a result of COVID-19 pandemic are summarised:

- Prices of some basic food commodities rose to abnormally high levels, which could negatively impact access to food. Domestic rice prices in Bangladesh in January 2021 were 35% above their previous year's value, and at the highest level since October 2017. This rise is due to stagnant production, limited imports and an upsurge in domestic demand due to the COVID-19 pandemic.
- In West Africa, trends in prices of coarse grains varied, but were generally higher than during the
 previous year. As COVID-19 restrictions were reintroduced to contain the pandemic's second
 wave, economic activities were constrained, and this was reflected in increasing grain prices.
 Impacts of the COVID-19 restrictions on the supply chain and trade flows have contributed to
 relatively high price levels in Ghana and Nigeria, above levels during the previous year.
- In Southern Africa, the price of the main food staple, maize, continued to rise at the start of 2021. National supplies limited price rises, however, there was an upward pressure from weaker currencies partly owing to the effects of the COVID-19 pandemic. Weaker currencies led to increases in food prices in Zimbabwe, Zambia and Mozambique. Zimbabwe food prices increased by 370% over a 12-month period. In South Africa, wholesale prices of maize increased in January 2021 following two months of declines, underpinned by spill-over effects from the international market. Botswana and Eswatini, which source most of their grain from South Africa, experienced stable prices. Malawi had stable prices which were lower than previous years, due to large domestic supplies.
- In East Africa, prices of coarse grains generally followed mixed trends in January 2021. In most countries, including Uganda and Rwanda, prices were below the previous year's levels. This was due to the COVID-19 pandemic slowing down economic activities and depressing domestic demand, as households' purchasing power deteriorated. In contrast, even with seasonal declines, prices in the Sudan and South Sudan were exceptionally high, underpinned by insufficient supplies and severe macro-economic difficulties. The prices of sorghum and maize in South Sudan was more than three times those of the already high previous year, and more than 50 times those in July 2015, before the currency collapsed.

Knowledge gaps/ areas for further research

The report and findings focus primarily on the price of staples, rather than on prices of nutritious foods.

Quality of the data / evidence (method)

The paper uses the real <u>FAO Food Price Index</u> to compare previous food prices to current prices – a measure of the monthly change in international prices of a basket of food commodities. It consists of the average of five commodity group price indices, weighted with the average export shares of each of the groups.

Title: COVID-19 and small enterprises in the food supply chain: Early impacts and implications for longer-term food system resilience in low- and middle-income countries

Author or institution	Nordhagen et al., World Development
Geographic focus	LMICS in sub-Saharan Africa and Asia
Population focus	General (Micro, small, and medium-sized food enterprises)
Technical focus	Availability and Price of Nutritious Food
Information type	Journal article (peer reviewed)
Date published	January 2021
Date added	February 2021

Purpose/objective of source

To describe the ways in which the pandemic and associated control measures have affected the operations of micro, small, and medium-sized food firms from 17 LMICs in sub-Saharan Africa and Asia. This study identifies the impact of the COVID-19 on food enterprises and highlights characteristics that make food firms more or less resilient to shocks, as well as implications for policymaking.

Main nutrition-related findings

- Based on data extracted from surveys completed in May 2020 (6 weeks after the pandemic began), the majority of food firms reported that their operations were impacted by the pandemic and associated restrictions. A decrease in consumer mobility for grocery shopping was significantly associated with an increased likelihood of severe negative impacts for firms. The youngest firms and those with the fewest employees (controlling for turnover) were less likely to be severely impacted.
- 81.5% of food firms reported decreased sales and 83.8% reported a decreased production volume. Other related impacts on firms included difficulty accessing inputs (48.8%), financing (40.2%), or equipment and services (30.1%); limited financial reserves (42.5%); difficulty paying staff (43.9%), inadequate staff (20.2%), or difficulty with staff getting to work (37.0%); closed retail or sales outlets (39.0%); and lost contracts (34.1%).
- Severe negative impact on operations were greatest for those working in processing, crop farming, retail, catering and food service sectors while negative effects were strongest in value chains for legumes, dairy, and vegetables. See table below showing differences the severity of COVID-19 impact, by sector and value chain

Table 3. The severity of the impact of COVID-19, by sector and value chain

Differences in severity of COVID-19 impact, by sector and value chain.

	Firms reporting considerable or severe impact on firm operations		Firms reporting stable or increased production	
	Percentage	Р	Percentage	Р
All Firms	56.1%		25.3%	-
By sector				
Processing	60.2%	0.061	52.7%	0.16
Crop farming	66.7%	0.023	18.3%	0.15
Livestock farming	54.0%	0.744	9.7%	0.19
Retail	65.9%	0.090	22.6%	0.50
Distribution	55.8%	0.920	46.2%	0.04
Business advisory services	45.7%	0.192	18.3%	0.00
Input provider	59.1%	0.773	5.4%	0.77
Aggregator	50.0%	0.480	10.8%	0.29
Wholesale, trading, export/import	66.7%	0.519	2.2%	0.82
Catering and food service	100.0%	0.005	2.2%	0.69
By value chain				
Grains	55.7%	0.907	38.7%	0.48
Roots & Tubers	64.1%	0.159	20.4%	0.37
Nuts & seeds	54.4%	0.794	18.3%	0.05
Legumes	67.4%	0.089	17.2%	0.20
Meat & poultry	60.0%	0.553	15.1%	0.64
Fish	47.8%	0.123	9.7%	0.00
Dairy	66.7%	0.081	19.4%	0.23
Eggs	64.7%	0.184	16.1%	0.47
Vegetables	63.3%	0.053	34.4%	0.68
Fruit	55.4%	0.876	28.0%	0.45
Condiments, sweeteners, spices & oils	59.3%	0.734	8.6%	0.59
Beverages	50.0%	0.663	5.4%	0.18
Animal feed	50.0%	0.861	0.0%	0.40
Baked goods & other ready-to-eat foods	63.2%	0.526	6.5%	0.52

Note: p-value refers to the Pearson Chi-squared test statistic; values in bold have p < 0.10

Source: Nordhagen et al., 2021

GESI observations



• Female-owned firms were more likely to report a 30% or greater decrease in production, with 67% of female-owned firms reporting this level of decrease.

Quality of the data / evidence (method)

- The data presented in the article come from a survey of owners and/or managers of 367 agri-food micro, small, and medium-sized firms in 17 LMIC, including firms that directly produce, process, or sell nutritious foods as well as those providing supporting services (e.g., agricultural inputs, cold chain services).
- Data was collected over a three-week period, between April and May 2020 via an online survey questionnaire.

Author or institution	FEWS NET
Geographic focus	Uganda, Kenya and Rwanda
Population focus	Households
Technical focus	Availability and price of nutritious foodstuffs
Information type	Report/Key message Update
Date published	January 2021
Date added	February 2021

Title: FEWS NET Updates: Uganda, Kenya and Rwanda

Purpose/objective of source

To assess the impact COVID-19 has had on household income and food security.

Main nutrition-related findings

In Uganda, food security deteriorates in Karamoja as household food and income sources decline

- Limited access to food and income sources, exacerbated by the COVID-19 pandemic, will likely result in food consumption deficits for many households
- Some poor households have depleted their food stocks and are primarily purchasing their food, while staple food prices have evolved differently from expected (e.g. prices of sorghum are up by 10% above the 5-year average), likely linked to an earlier-than-anticipated increase in household demand. Based on the decline in food stocks and the terms of trade, an increasing number of households are expected to experience food consumption gaps as the March to August lean season progresses
- Food security outcomes in refugee settlements are also expected to deteriorate to Crisis (IPC Phase 3) during the February-May period.
- WFP reports a US\$ 95.8 million funding gap to provide full rations to the refugee population through June 2021. WFP anticipates that the distribution of a 60 percent monthly cash or in-kind ration will likely be insufficient to prevent food consumption gaps and warn of a risk of an increase in acute malnutrition due to sustained food consumption gaps since April 2020.

In Kenya, rural food security deteriorates as livestock productivity and household food stocks decline

- Poor urban households in Nairobi, Kisumu, and Mombasa are engaging in crisis-coping strategies such as reducing non-food expenses like healthcare and selling productive assets
- In Rwanda, the most recent COVID-19 lockdown threatens poor urban household food security
- There were concerns that some households will struggle to access adequate food and income during the lockdown, but the government was confident that rations would reach the most vulnerable households.
- Since December 21, 2020, the re-introduction of stricter COVID-19 restrictions is limiting food and income-earning opportunities, particularly for poor urban households, though rural household food security is expected to remain stable.

Quality of the data / evidence (method)

• FEWS NET uses the Integrated Food Security Phase Classification (IPC) Version 3.0 scale to evaluate the severity of food emergencies, with an IPC of 1 indicating minimal food insecurity and 5 indicating famine.

- Price data is taken from the <u>FEWS NET Price Watch</u>, updated on a monthly basis, to show global, national and regional price levels of the preceding month.
- Data for early warning of food insecurity are taken from a variety of sources, including US science agencies, national ministries of trade and agriculture, international organisations, and NGOs. FEWS NET also employs networks of monitors to report localised data such as staple food prices and rainfall.

Title: 60 decibels: Listening in the time of COVID-19

Author or institution	60 decibels
Geographic focus	Global (Brazil, Cote d'Ivoire, Democratic Republic of the Congo, Ghana, India, Indonesia, Kenya, Madagascar, Myanmar, Nigeria, Paraguay, the Philippines, Rwanda, Senegal, Sierra Leone, South Africa, Tanzania, Uganda and Zambia)
Population focus	Households
Technical focus	Availability and price of nutritious food stuffs
Information type	Data
Date published	January 2021 (Updated February 2021)
Date added	February 2021 (updated from earlier versions included by TASC and MQSUN)

Purpose/objective of source

The objective of 60 decibels is to understand the impact of COVID-19 on the poorest people. They do this by surveying two different groups of people regarding the effect the pandemic has had on them.

- First, they aim to understand the impact of COVID-19 by speaking to the people most likely to be affected—low-income customers—to track how the crisis affects them over time, and to identify their most urgent needs both now and in the future. (The nutrition-related findings relate to food consumption (surveying 25,423 people in 19 countries as of 24 January 2021).
- Second, they aim to inform about the long-term effects on agricultural supply chains and global food systems (surveying 3,596 Kenyan farmers as of 20 January 2021).

Main nutrition-related findings

- As a result of COVID-19 in November 2020, 20% of households reported a decrease in food consumption per person in the household between October and November 2020. In comparison, 10% of households have seen an increase during the same period
- The countries most affected by a decrease in food consumption of the countries surveyed are Madagascar and Rwanda at 60% and 58% respectively.
- In December 2020, 88% of Kenyan farmers reported being in a worse financial situation and 87% had used a financial coping mechanism. In addition, 69% of Kenyan farmers have had to pay higher prices for inputs and 66% received lower prices for their produce in the previous two weeks. This is despite 67% reporting higher food prices but the profits from these are not reaching farmers.

Knowledge gaps

There is no information as to whether diets are still of the same quality and instead the focus is solely on quantity.

GESI observations

- Food consumption data is available disaggregated by gender. In November 2020, 26.8% of women reported a decrease in food consumption as a result of COVID-19 compared to only 18.6% of men.
- Agricultural impact data are disaggregated by gender. Some differences include women being more likely to report a worsened financial situation and request cash support, as well as being more likely to reduce product sales and less likely to use more expensive digital tools.

Quality of the data / evidence (method)



- For food consumption, 60 decibels survey customers of energy companies and microfinance institutions who have agreed to participate. The companies share their customer contact database and participants are randomly selected.
- There are multiple concerns relating to the survey design / methodology including: (1) only surveying customers with access to a certain service, particularly when aiming to survey low-income households; (2) weighting all countries evenly, irrelevant of size and number surveyed; and (3) small sample sizes; (4) lack of clarity around the selection method.

Title: Somalia: Integrated Food Security Phase Classification Snapshot | January - June 2021

Author or institution	Integrated Food Security Phase Classification
Geographic focus	Somalia
Population focus	All
Technical focus	Availability and price of nutritious food stuffs; Nutritional status
Information type	Infographic
Date published	February 2021
Date added	February 2021

Purpose/objective of source

To provide detailed information on current and projected acute malnutrition and food insecurity within Somalia. It focuses on geographical differences but also discusses key drivers of food insecurity.

Main nutrition-related findings

The IPC reveals the following nutrition estimations:

- Up to 2.7 million people across Somalia are expected to face high levels of acute food insecurity through mid-2021 in the absence of humanitarian assistance.
- It is estimated that approximately 840,000 children under the age of five might be acutely malnourished, including nearly 143,000 who are likely to be severely malnourished (Note on the timeline: the source appears to refer to January-April 2021).
- The drivers of acute food insecurity in Somalia include the compounding effects of poor and erratic rainf all distribution, flooding, desert locust infestation, socioeconomic impacts of COVID-19, and conflict.
- Without food assistance, the situation is expected to get considerably worse.

Figure 8. Current and projected acute malnutrition





Quality of the data / evidence (method)

- Country-specific methodologies, and therefore data sources, are unclear.
- The Integrated Food Security Phase Classification (IPC) <u>technical manual</u> lists many issues/limitations with the methodology such as: (1) general lack of data in certain countries; (2) lack of detail within certain sources (i.e. quantity of nutritious food); and (3) weak coverage at a subnational level.
- Note: The infographic does not explore to which extend the food security and acute malnutrition estimations can be attributed to COVID-19.

Author or institution	Pierella Paci, World Bank
Geographic focus	Sub-Saharan Africa
Population focus	Households
Technical focus	Availability and price of nutritious food stuffs/intervention delivery and coverage
Information type	Blog
Date published	January 2021
Date added	February 2021

Title: How livelihoods deteriorated in sub-Saharan Africa due to COVID-19

Purpose/objective of source

The blog describes some recent results from a World Bank-led effort to implement a series rapid response phone surveys, specifically from Burkina Faso, Ethiopia, Kenya, Malawi, Mali, Nigeria, Uganda, and Zambia.

Main nutrition-related findings

The World Bank has launched a series of rapid response phone surveys of households and firms in more than 100 countries, including 41 in sub-Saharan Africa. Early findings include:

• Across sub-Saharan Africa, the COVID-19 pandemic has taken a major toll on livelihoods, food security, and human capital.

- According to the surveys, the pandemic does not appear to have drastically affected access to health services in most countries. For example, at least three-quarters of households are still able to obtain medical treatment in Nigeria, Malawi, Zambia, and Madagascar, and more than 90 percent in Kenya, Mali, and Ghana. However, in the Democratic Republic of Congo, only 13 percent of households were able to access medical treatment.
- Income losses were reported to have led to reductions in consumption, though the share of households who reported being forced to reduce their consumption of goods varies widely – from approximately 1 in 10 households in Mali and Zambia, to 4 in 10 households in Kenya and more than 8 in 10 households in Kinshasa, Democratic Republic of Congo.
- Food insecurity has also increased. Compared to the previous year, food insecurity has reportedly tripled in Nigeria, Ethiopia, Uganda, and Malawi. In Malawi, Nigeria, Kenya, South Africa, and Sierra Leone, more than half of households reported running out of food in the 30 days prior to the survey, with urban households being disproportionally affected. School closures across all countries aggravated the problem by limiting children's access to school feeding programs.

Quality of the data / evidence (method)

- Data and findings are from the <u>World Bank's High Frequency Mobile Phone Surveys of Households</u> to Assess the Impacts of COVID-19.
- Some limitations of phone based survey are acknowledged: (i) selection bias driven by a large, yet
 selected segment of the population owing a mobile phone, (ii) non-response bias (that often worsens
 throughout the life a phone survey), (iii) heterogeneity in mobile phone coverage, across
 geographies and population groups, and (iv) a limited scope for verifying accuracy of answers.
- Cross-country comparisons and aggregations should be interpreted with caution because the surveys were collected by phone, they are only representative of phone owners who are willing to respond to the survey.

Author or institution	The World Bank
Geographic focus	Kenya
Population focus	All population
Technical focus	Intervention Delivery, food security
Information type	Dashboard
Date published	January 2021
Date added	February 2021

Title: Monitoring COVID-19 Impact on Households in Kenya

Purpose/objective of source

To offer an interactive dashboard which allows to measure the socioeconomic impacts of COVID-19 in Kenya.

Nutrition related findings

- The World Bank's High Frequency Monitoring Dashboard contains harmonised, comparable information on over 90 indicators across 14 key topics such as food security, changes in employment, income loss, access to safety nets, access to health services, and household coping strategies for 44 countries in all developing regions.
- New data was collected in January 2021 on Kenya. This month, the findings most relevant to this tracker relate to food security.
- In January 2021, 30% of urban respondents reported experiencing a livelihood shock since March 2020, compared to 20% of rural respondents.
- The below figure indicates that in January 2021, adults and children in urban and rural households have skipped meals during a period of at least two days in the week prior to January 18, 2021.

Figure 9. Number of days adults and children skipped a meal last week (January 18, 2021)

Number of days last week where adults skipped meals



Number of days last week where children skipped meals



Source. World Bank rapid surveys Kenya Dashboard

Quality of the data / evidence (method)

- The high-frequency phone survey on the socioeconomic impacts of COVID-19 in Kenya is implemented by the World Bank, in collaboration with the Kenyan National Bureau of Statistics (KNBS), the United Nations High Commissioner for Refugees (UNHCR) and the University of California, Berkeley.
- The data is collected by phone interviews with households from three different groups. The first group of households is drawn randomly from a subset of the Kenya Integrated Household Budget Survey in 2015/16. The second group is reached by Random Digit Dialling, whereby phone numbers potentially existing in Kenya are randomly generated. These first two groups cover urban and rural areas and are designed to be representative of the population of Kenya using cell phones. The third group consists of refugees registered with UNHCR and living in refugee camps as well as in urban areas.
- Data collection started in May 2020 and households are called every two months for five survey rounds, to track the impact of the pandemic over time. The subgroup of households interviewed each week is representative of the surveyed population, allowing analysis of weekly trends in a dashboard.

Author or institution	GAIN
Geographic focus	Global with focus on 10 GAIN countries (Bangladesh, Ethiopia, India, Indonesia, Kenya, Mozambique, Nigeria, Pakistan, Rwanda, and Tanzania)
Population focus	All
Technical focus	Availability and price of nutritious food stuffs
Information type	Report
Date published	November 2020

Title: Impact of COVID-19 on Food Systems: A Situation Report



Date added

January 2021

Purpose/objective of source

This document is the fourth situation report generated to synthesise insights on the ongoing impacts of COVID-19 on food systems for use by practitioners and policymakers. The analysis focuses on a set of 10 countries where GAIN works. Particular focus is placed on the impacts on small- and medium-sized enterprises (SMEs) within the food system and how nutritious foods value chains are changing.

Main nutrition-related findings

The situation report consolidates a variety of evidence and highlights the following findings:

- An estimated 34% of global food system livelihoods are at risk due to COVID-19, the greatest risk areas are in food processing, food services and distribution services, with 60%, 60% and 40% of livelihoods at risk, respectively (FAO, IFPRI, and ILO, 2020).
- Staple food marketing systems continue to operate at near-normal levels, though food prices in several countries are higher than pre-pandemic levels; given the potential for periodic trade disruptions and higher operating costs, occasional supply and price volatility are anticipated.
- The economic downturn caused by COVID-19 is expected to worsen an already concerning food security and nutrition context. According to the <u>WFP September-December 2020 outlook</u>, of the 10 GAIN focus countries, Nigeria, Ethiopia, and Mozambique are currently at most risk of food and nutrition insecurity.
- While prices of staple foods have increased in a number of countries, food availability and prices are broadly following seasonal trends.
- There is continued disruption in many countries, particularly when it comes to negative effects on nutritious food consumption, especially proteins and fresh produce, due to reduced incomes, and disrupted food supply chains, including sourcing of inputs and bringing food to market.

Knowledge gaps / areas for further research

The only knowledge gap relates to the small number of countries this analysis has included.

GESI observations

- The report relays some results from an October 2020 AGRA study on the constraints faced by SMEs owned by women in SSA, based on a voluntary online survey of 71 adult women. It notes that the three largest constraints as a result of the COVID-19 pandemic relate to access to markets (71.8% of respondents), access to finance (60.6%) and disruption of the supply chain (59.2%). In order to cope with these challenges, 64.9% of the respondents were using social media platforms to market their products and 50.7% of them reduced their operational costs to keep their businesses afloat, while 28.17% of the respondents had closed temporarily. There was no comparison to SMEs owned by men.
- The same survey found that over 50% of the women respondents had either experienced genderbased violence or knew a woman who had experienced it

Quality of the data / evidence (method)

This report mostly draws on secondary data with some GAIN/partner primary data. The secondary data sources include Euromonitor's ecommerce price and stock data; FEWS NET; the Food and Agriculture Organisation (FAO) Big Data tool on food chains under the COVID-19 pandemic; FAO Food Price Monitoring and Analysis; and over a dozen studies by FAO, the International Food Policy Research Institute (IFPRI), the World Bank and others.

Title: Impacts of COVID-19 on agricultural production and food systems in late transforming Southeast Asia: The case of Myanmar

Author or institution	Boughton, D., Goeb, J., Lambrecht, I., Headey, D., Takeshima, H., Mahrt, K., Masias, I., Goudet, S., Ragasa, C., Maredia, M. K., Minten, B., & Diao, X.
Geographic focus	Myanmar
Population focus	All



Technical focus	Availability and price of nutritious food stuffs
Information type	Journal Article (peer reviewed)
Date published	January 2021
Date added	January 2021

The objective of this article is to report the initial impacts of measures taken to contain the COVID-19 pandemic on Myanmar's agri-food system. Due to the effect on the agri-food system being less evident and more indirect, it was under-allocated for in the initial fiscal response from the government.

Main nutrition-related findings

- The agri-food system has been hit by multiple shocks including domestic and foreign demand shocks, supply disruptions due to movement restrictions, and liquidity constraints.
- Farm households, in response to income losses and lower crop prices, cut back on investment in monsoon season crop production, with systemic effects on firms providing agricultural inputs and mechanization services.
- While the agri-food system appears to have been resilient in its ability to adapt to disruption in the short run, persistent income losses among all types of actors may result in a prolonged recovery period.

Calls to action:

- Agricultural inputs, services and products must be allowed to move freely while ensuring safety measures appropriate to COVID-19 prevention.
- Additional financial liquidity should be made available to farmers and businesses, along with flexible terms, to prevent disruption of farm activities and service provision.
- Additional social protection will likely be required to avoid severe food insecurity and malnutrition among vulnerable households (including timeliness through mobile payment coverage improvements and better data for decision makers to target resources).

GESI observations

Men are generally considered to be more knowledgeable about agricultural production, yet decisions on agricultural production and income are often made jointly. Nonetheless, participants in most agricultural programmes are mainly the household head, who is often the man, limiting women's direct access to agricultural services.

Quality of the data / evidence (method)

- Findings are based on the results from a suite of phone surveys from the second quarter of 2020, completed by households, farm input suppliers, mechanisation service providers, farmers, commodity traders, millers, food retailers and consumers, among others. Sample sizes varied from 93 (mechanization service providers) to 2000 (households).
- Limitations include:
 - Opportunistic sampling strategies given time constraints, based on the availability of phone numbers from previous surveys hence not fully representative;
 - Most of the data applies to the second and third quarter of 2020 rather than last quarter;
 - Attrition and non-response issues, as well as short survey instruments and simple question structures.

Title: Food Price Monitoring and Analysis (FPMA) Bulletin # 10, 10 December 2020

Author or institution	FAO
Geographic focus	Global with focus on Argentina, Bangladesh, Brazil, Kyrgyzstan, Nigeria, South Sudan, Sudan, Tajikistan and Zimbabwe.



Population focus	Households
Technical focus	Availability and price of nutritious food stuffs
Information type	Report
Date published	December 2020
Date added	January 2021

Monthly report and analysis on food price trends at world, regional and country level with focus on developing countries.

Main nutrition-related findings

- International prices of wheat and major coarse grains increased further in November, reflecting continued strong global demand. However, rice values remained steady with support provided by tight availabilities and currency movements in selected South East Asian exporters countering limited demand and harvest pressure in other major origin countries.
- In East Africa, prices of coarse grains increased further in Sudan and South Sudan in November, reaching record highs in several markets of both countries, underpinned by insufficient supplies and difficult macro-economic conditions, including a sustained depreciation of the national currencies.
- In West Africa, prices of coarse grains eased further in Nigeria, with fresh supplies from the 2020 harvest but supply chain bottlenecks amid generally difficult macro-economic conditions sustained them well above their year-earlier values, particularly in the northeast where persistent conflict exacerbated the economic challenges.
- In Central America, prices of maize and beans increased, especially in Guatemala, Honduras and Nicaragua, hit hard by hurricanes Eta and lota.

Knowledge gaps / areas for further research

- The report and findings focus primarily on the price of staples, rather than nutritious food specifically.
- The price changes may not solely be due to the COVID-19 pandemic and instead be due to other supply/demand side shocks (although the report explicitly states the cause of the price change where possible).

Quality of the data / evidence (method)

- The paper uses the real FAO food price index to compare previous food prices to current prices.
- The FAO Food Price Index is a measure of the monthly change in international prices of a basket of food commodities. It consists of the average of five commodity group price indices, weighted with the average export shares of each of the groups. The sub-indices can also be tracked, as done in this report.

Links to references to this source

Global FAO Food Price Index monthly data csv download

Title: Acute food insecurity and short-term coping strategies of urban and rural households of Bangladesh during the lockdown period of COVID-19 pandemic of 2020: report of a crosssectional survey

Author or institution	Das et al., BMJ Open
Geographic focus	Bangladesh
Population focus	Households
Technical focus	Availability and price of nutritious food stuffs
Information type	Peer reviewed article



Date published	December 2020
Date added	January 2021

To assess the extent of food insecurity and identify the determinants and short-term coping strategies adopted by households in one urban and one rural area in Bangladesh after a month-long lockdown during the COVID-19 pandemic.

Main nutrition-related findings

- Around 90% of the households surveyed suffered to some extent from food. While not possible to rigorously compare to pre-COVID studies, a nationwide study cited in the article from 2018 found that 58% of households were either mildly, moderately or severely food insecure.
- The prevalence of severe food insecurity was significantly higher in urban households (42%) than among their rural (15%) counterparts. At the same time, 70% of rural households had mild to moderate food insecurity while in urban areas the corresponding prevalence was 50%.
- To combat food insecurity, households adapted coping strategies including consuming fewer food items or changing their food habits (Urban: 74%, Rural: 44%) and also borrowed food (Urban 54%, Rural 22%). The figure below presents a range of coping strategies to adapt to food insecurity during a month-long lockdown period.

Figure 10. Proportions of different coping strategies adopted by the urban and rural households



Study approach

- The data above are derived from cross-sectional surveys carried out with mothers in 106 urban and 106 rural poor households of Bangladesh in April 2020, one month after a nationwide lockdown was imposed. Data collected was for the previous four weeks (March 26 to April 26).
- According to the authors, the data were collected through a rapidly done cross-sectional survey just at the end of the first month of lockdown, which limits the possibility of recall bias. However, study locations were identified based on convenience. A larger sample size involving a wider geographical location would be better for generalisability and strength of the study.

Title: COVID-19 Pandemic: Impact of restriction measures in West Africa

Author or institution	World Food Programme
Geographic focus	Economic Community of West African States (ECOWAS) region
Population focus	Households



Technical focus	Availability and price of nutritious food stuffs
Information type	Research report
Date published	December 2020
Date added	January 2021

To assess the impact of COVID-19 and the restrictions measures that were put in place to contain the pandemic in the 15 countries in Economic Community of West African States (ECOWAS) region.

Main nutrition-related findings

- 90% of urban and rural households surveyed reported a rise in food prices.
- Households reporting on food stocks, an indicator of food availability, stated that their food stocks in 2020 were lower than their food stocks in 2019, with 80% of households in rural areas and 63% in urban areas reporting a decrease.
- In rural areas, transport disruption affected the availability of basic food more sharply. The table below
 presents the availability of food and non-food items in urban and rural areas during COVID-19
 restrictions.

Table 4. Availability of food and non-food products

	Fresh food products (e.g. vegetables, meat, eggs)		Foodstuffs basic (e.g. cereal, sorghum, flour)	
	Urban	Rural	Urban	Rural
Always available	50%	31%	50%	31%
Sometimes available	43%	58%	43%	58%
Rarely / never available	2%	3%	2%	3%
No longer available	2%	7%	2%	7%
Do not know	3%	1%	3%	1%

Source: ECOWAS Commission/Survey data analysis.

GESI observations

- Concerns about household access to food were felt more by female-headed households, with 74% of non-working women reporting increased vulnerability, compared to 47% of working women in this group.
- A review of coping strategies adopted to address risk of food shortages revealed that 32% of femaleheaded households reportedly spent an entire day without eating or skipped meals, compared to 28% of male-headed households.

Quality of the data / evidence (method)

- Cross sectional study via household web-based surveys across 15 countries. As part of this survey, a household questionnaire was developed in the three languages officially spoken in the region (English, French and Portuguese). This questionnaire was structured around the demographic characteristics of the responding household, the restrictive measures, the impact on food security and livelihoods, coping strategies and the risks incurred in case of prolonged restriction measures. The questionnaire was developed on ArcGIS' Survey123 platform, the link generated was then widely disseminated in the sub-region.
- Data collection took place from May 10 to July 3 and 4,677 households were registered.

Title: COVID-19 and Food: Challenges and Research Needs

Author or institution Knoor and Khoo, Frontiers in Nutrition



Geographic focus	Global
Population focus	All
Technical focus	Policy
Information type	Journal article (peer reviewed)
Date published	December 2020
Date added	January 2021

To highlight several food and nutrition-related challenges encountered during the COVID-19 pandemic,

Main nutrition-related findings

The paper identifies several food and nutrition-related challenges encountered during the COVID-19 pandemic, including food and water safety, supply chain disruptions, food and water insecurity, consumer and food behaviour, malnutrition and nutrient intakes, food surveillance technology, with the objective of stimulating robust scientific discussions on existing research gaps and developing long-term "exit strategies" to prepare for future pandemics

Consumer food behaviour:

- Citing studies in United States on food spending based on household surveys and from transactionlevel household financial data from August 2016 to April 2020 (Baker et al. 2020) and consumer behaviour from April and May 2020 (International Food Information Council, 2020) the authors show that COVID-19 has changed how, where and what people eat, including quality and quantity of food consumed. More research is needed to understand the impact of consumer food behaviour duringand after the pandemic.
- Some of the areas of future research the authors propose include 1) understanding the changes in consumers' food in an environment in response to mitigation efforts; 2) understanding overall impact of pandemic-related circumstances on consumer food and nutrient intakes, and dietary patterns; 3) understanding dynamics and psychology of food choices and intakes during and post pandemics and the effects on long-term food behaviour; and 4) studying of the impact of COVID-19 on consumer food home preparation and food waste reduction.

Diet and nutrition:

- "While there is no food or nutrition intervention known to stop COVID-19, it is known that a healthy and diverse diet and nutrition can support and modulate immune responses to viral infections."
- More information is needed to understand the interaction between COVID-19, diet and nutrition. The
 authors propose studying 1) the link between nutritional status and COVID-19, and the impact of
 nutritional health in recoveries in different population groups; 2) the potential impact of nutritional
 status on morbidity and mortality from SARS-CoV-2, and 3) the modulating role food and nutrients
 play in the management of COVID-19.

COVID-19 exit strategies:

• To prepare for future pandemics, the authors recommend a series of "exit strategies" and goals, which include 1) provision of clear food safety and hygiene requirements for every step along the food chain; 2) initiation of local/regional storage facilities for food staples and drinking water; 3) increasing local/regional self-sufficiency for food and water supplies; 4) assurance of continuous feeding programmes for poor populations during school closures and lockdown with nutritious food; and 4) provision of local/regional recommendations for shelf staple food storage.

Knowledge gaps / areas for further research

The authors encourage the scientific communities to anticipate needed food and nutrition priorities for future pandemics, and to build a more resilient food system that better integrates critical factors such as the food supply chain, nutritional security, healthy food accessibility, education, and communication on food safety and preparation in the event of long quarantines. They also highlight a need to form a global food, nutrition, and related science advisory body to prepare and advise for future pandemics.

Quality of the data / evidence (method)

Literature review including 32 sources. The paper did not include a description of the methodology.



Title: Effects of COVID-19 on Papua New Guinea's Food Economy: A multi-market simulation analysis

Author or institution	IFPRI: Xinshen Diao, Paul Dorosh, Peixun Fang, and Emily Schmidt
Geographic focus	Papua New Guinea
Population focus	Households
Technical focus	Availability and price of nutritious foodstuffs
Information type	Research paper
Date published	December 2020
Date added	December 2020

Purpose/objective of source

• A multi-market model built to simulate effects of COVID-19 control policies and their related economic effects on PNG's food economy.

Main nutrition-related findings

- Developments in the agricultural economy of Papua New Guinea have major impacts on household food consumption decisions.
- The model reveals that urban households, especially the poor, might be particularly vulnerable to shocks related to the COVID-19 pandemic.
- Urban incomes (including poor and non-poor households) are projected to reduce by 15%, as a result of lower economic activity in urban areas, increases in marketing costs due to domestic trade disruptions, and 30 percent higher imported rice prices.
- The model also indicates that <u>urban poor households</u>, <u>likely suffer the largest drop in calorie</u> <u>consumption at 19.8 percent</u>, compared to an estimated 15.8 percent decline for urban non-poor households.
- Rural household incomes, affected mainly by reduced urban demand and market disruptions, are
 projected to fall by only about 4 percent. Nonetheless, <u>calorie consumption for the rural poor and
 non-poor might fall by 5.5 and 4.2 percent</u>, respectively. About half of these declines are because
 of the adverse impact of higher rice prices on average rice consumption.

Data

- The above information is based on a modelling exercise. The model includes various production and consumption data from the HIES (2009/10), and calorie consumption data also from the HIES (2009/10) and IFPRI (2018). Calorie conversion factors for individual food items are estimated by FAO for PNG.
- The multi-market model considers different production and consumption patterns within PNG by region, by rural/urban, and by poor/non-poor households. For Southern and Momase Regions, urban households are further disaggregated by metro vs. other urban, following the survey sample design employed by the PNG Household Income Expenditure Survey (HIES).

Author or institution	World Food Programme
Geographic focus	Global
Population focus	General
Technical focus	Availability and price of nutritious foodstuffs

Title: WFP: External Situation Report #17



Information type	Report
Date published	December 2020
Date added	December 2020

• WFP's External Situation Report #17 offers a situation update from WFP and their regional operations. It includes some key information on operational activities and some estimates of the number of people who are food insecure from their corporate alert system and other WFP-related sources.

Main nutrition-related findings

- In their <u>Global Update on COVID-19</u>: November 2020, WFP estimates that 271.8 million people in 79 countries are acutely food insecure or directly at-risk due to the compounding effects of COVID-19.
- At a regional level, increases in food insecurity are observed in the Middle East, Asia, and in particular, Latin America and the Caribbean where hunger has quadrupled in the countries where WFP operates.
- In Middle East, North Africa, Central Asia And Eastern Europe: Due to the compounding effects of COVID-19, in November, WFP estimates that 54.5 million people are acutely food insecure in the region, up 2.8 percent from June estimates.
- In West and Central Africa: "The preliminary results of the 2020/21 Cadre Harmonisé analysis conducted in November 2020 suggest that over 19.4 million people are food insecure across the region between October and December 2020. The number of food insecure populations is projected to increase to over 25.9 million people during the June-August 2021 period. Overall, these figures are significantly higher for the current period (October-December) compared to 2019, when an estimated 10.8 million people were estimated to be food insecure (80 percent increase)."

Title: WFP Global Update on COVID-19: November 2020 - Growing Needs, Response to Date and What's to Come in 2021

Author or institution	World Food Programme
Geographic focus	Global
Population focus	General
Technical focus	Availability and price of nutritious foodstuffs
Information type	Report
Date published	November 2020
Date added	December 2020

Purpose/objective of source

• WFP's Global Update on COVID-19 report gives an update from WFP and their operations and presents information on needs, WFP response and WFP requirements. This includes some recent estimates of the number of people who are food insecure.

Main nutrition-related findings

- WFP estimate a total of 271.8 million people in its operational countries are acutely food insecure or directly at-risk of becoming so "due to the aggravating effect the protracted COVID-19 crisis is having in areas affected by conflict, socioeconomic downturn, natural hazards, climate change and pests".
- This suggests a slight increase of WFP's previous estimate of 270.2 million in June.

- The projected number of people in acute food insecurity has increased in the 'Asia and the Pacific' region (up 3.6% since June estimates), the 'Middle East, Central Asia and North Africa' region (up 2.8%) 'Latin America and the Caribbean' (up 15%).
- Levels remain similar in 'West and Central Africa (up 0.3%) and have decreased in 'Southern Africa' (down by 4.4% since June estimates) and 'East Africa' (down 3.6%).

Table 5. Projected number of people in acute food insecurity (in millions)

Regions	June	November	Trend
Asia and the Pacific	49.6	51.4	+3.6%
Middle East, Central Asia and North Africa	53.0	54.5	+2.8%
West and Central Africa	57.6	57.4	-0.3%
Southern Africa	52.4	50.1	-4.4%
East Africa	41.6	40.1	-3.6%
Latin America and the Caribbean	16.0	18.4	+15%
Total	270.2	271.8	0.6%

Title: Crowdsourced data reveals threats to household food security in near real-time during COVID-19 pandemic

Author or institution	IFPRI, Julius Adewopo, Gloria Solano Hermosilla, Fabio Micale and Liesbeth Colen
Geographic focus	Global, Nigeria
Population focus	Households
Technical focus	Availability and price of nutritious foodstuffs
Information type	Blog
Date published	17/11/2020
Date added	17/12/2020

Purpose/objective of source

Researchers from the European Commission's Joint Research Centre and the International Institute of Tropical Agriculture describe the development of a crowdsourcing tool for collecting real-time local price data.

Main nutrition-related findings

The blog describes a number of findings:

- The COVID-19 pandemic and related lockdown measures have disrupted food systems globally, leading to fluctuations in the prices of some food commodities, mostly at the country or local levels.
- Data from May-June 2020 suggested that maize and rice prices increased on average by 26% and 44%, respectively, compared to the same period in 2019. Price increases were slightly higher in urban than in rural areas. The data also showed that after lockdown measures were relaxed, prices continued to rise: For instance, local rice continued to be sold at prices 50% higher than in 2019.
- High food priced hotspots were mainly observed in urban areas during COVID-19 lockdowns. Combining the price data with a spatial richness index grid, shows higher prices in May-June 2020 in richer, and mostly urbanized areas. But rural areas, where poverty rates exceed 70%, were hard-hit as well, with average price increases of 22% for maize and 42% for rice posing a threat to food security.

• For urban areas: Their average level of richness is higher, suggesting that urban households may be better positioned to absorb such steep temporary price increases.

Data

- The Food Price Crowdsourcing Africa (FPCA) project developed, deployed, and tested a
 systematized process for crowdsourcing daily prices for a small number of staple foods, presenting
 the validated data in an open-access web dashboard. Following an initial round of publicity, over 700
 volunteers from Kano and Katsina States were invited to submit food price data through a mobile app
 during visits to any type of market for purchase or mere price checking.
- Crowdsourced data was taken from September 2018 to 2019, and again from May 12, 2020 to June 16, 2020, when lockdown measures were severely disrupting the food system in northern Nigeria. The data showed a steep increase in food prices, trailing the lockdown timeline.
- The successful set-up and implementation of this price tool and platform illustrates the potential of
 engaging citizens through a mobile app to crowdsource spatially- and temporally- rich data in near
 real-time. In addition, the ease of activating the tool remotely for price monitoring in an emergency
 shows its potential in responding to sudden food system shocks.
- However, a number of potential concerns remain: Volunteer data contributors may not be fully
 representative of a region's population; for instance, educated males living in urban areas were overrepresented in the Nigeria project.
- Additional efforts are needed to boost the participation of more vulnerable populations, and improve the coverage of remote, less populated and often highly food-insecure areas.
- Overall, findings suggest that smartphone- and citizen-driven price data collection can complement traditional price data collection systems in terms of timeliness, geographical granularity and responsiveness to market disruptions—not only from the COVID-19 pandemic, but also conflicts, climate shocks, and other problems.

Author or institution	World Food Programme (WFP) and the International Organisation for Migration (IOM)
Geographic focus	Global
Population focus	Migrants, remittance dependent households and forcibly displaced people
Technical focus	Availability and price of nutritious foodstuffs

Title: Populations at risk: Implications of COVID-19 for hunger, migration and displacement

Purpose/objective of source

Information type

Date published

Date added

 A joint study by the World Food Programme and the International Organisation for Migration which explores the impacts of COVID-19 and related containment measures on migrant workers, remittance dependent households and the forcibly displaced. It assesses the implications of the pandemic for people's mobility, food security and other livelihood outcomes in major migration and hunger hotspots.

Main nutrition-related findings

• "...the impact of the crisis on food security and poverty could increase people's need to search for livelihoods elsewhere, leading to a potential rise in migration driven by necessity."



Report

September 2020 December 2020

- "Income loss and unemployment have pushed many migrants to return home as they have become unable to support themselves and their families. Return journeys thwarted by COVID-19 related border closures and travel bans have left nearly 3 million migrants stranded, unable to return to their places of work, their communities or countries of origin (IOM, 2020)."
- "In October, the World Bank estimated that remittances to LMICs would drop by at least 14 percent by 2021 as a result of the pandemic (World Bank and KNOMAD, 2020). Based on this estimation, it was projected by the World Food Programme that remittance losses could leave <u>an additional 33 million</u> <u>people at risk of facing hunger</u> across the countries where it operates."
- "...migrant workers dependent on daily labour are emerging as a new group at <u>increased risk of food</u> <u>insecurity</u> due to loss of income and lack of access to safety nets..."

Data/Approach

Migration data is based on IOM estimates, derived from IOM country missions' inputs to their MRM/PoE database. Remittance estimates are from World Bank-KNOMAD staff estimates

Title: FAO-WFP Early Warning Analysis of Acute Food Insecurity Hotspots - Nov	vember 2020

Author or institution	The Food and Agriculture Organisation of the United Nations (FAO and the World Food Programme (WFP)
Geographic focus	Global
Population focus	General
Technical focus	Availability and price of nutritious foodstuffs
Information type	Report
Date published	November 2020
Date added	December 2020

Purpose/objective of source

• A joint FAO-WFP analysis of food insecurity hotspots as the coronavirus crisis unfolds.

Main nutrition-related findings

- "Among the different dimensions of food security, access to food has been the most impacted due to the income losses and macroeconomic shocks caused by the COVID-19 pandemic and the measures introduced to curb its spread." "...while markets and food supply chains worldwide have largely stabilised after the initial disruptions caused by the effects of COVID-19-related restrictions, structural deficiencies in countries with food crises have translated into more substantial impacts on agricultural production and other parts of the food supply chain."
- "The FAO Food Price Index had increased for four consecutive months as of September 2020, when it recorded a 5 percent increase compared to its value in the same month of 2019"
- "While in many countries COVID-19-related restrictions have been progressively lifted, allowing
 economic activity to resume, analyses carried out between March and September 2020 show a
 deterioration across 27 countries affected by food crises last year that now have between 101 and
 104.6 million people facing a food crisis or emergency (FSIN and Global Network Against Food
 Crises, 2020)."
- Looking ahead, FAO and WFP estimate that 20 countries and situations have potential for acute food
 insecurity to deteriorate further.
- "Within the hotspot countries and situations, in some areas of Yemen, South Sudan, north-eastern Nigeria and Burkina Faso, parts of the population are experiencing a critical hunger situation with extreme depletion of livelihoods, insufficient food consumption and high acute malnutrition."

Data

The main sources of data for Crisis or worse levels of acute food insecurity (current and projections) are the Integrated Food Security Phase Classification (IPC) and the Cadre Harmonisé (CH). For countries where IPC/CH analyses were not conducted and where no recent analyses were available, estimates of the number of people in acute food insecurity were primarily derived from the Famine Early Warning Systems Network (FEWS NET) IPC-compatible analysis, WFP assessments using CARI methodology or Humanitarian Needs Overviews.

Title: Food Insecurity in Tribal High Migration Communities in Rajasthan, India

Author or institution	Saxena et al. (Food and Nutrition Bulletin)
Geographic focus	India (Rajasthan)
Population focus	Community members and patients visiting clinics and health centres, including pregnant women and severely malnourished children
Technical focus	Availability and price of nutritious foodstuffs
Information type	Journal Article (field report)
Date published	November 2020
Date added	December 2020

Purpose/objective of source

To assess the availability of foodstuffs at the household level and community experiences about satiety and hunger during lockdown among tribal populations in southern Rajasthan, India

Main nutrition-related findings

Food availability and prices

- Most of the vegetables and fruits came from kitchen gardens or the locally grown trees. Travel to the nearest markets was difficult. People also stopped buying from vendors coming to the villages, due to fear that these could spread Covid-19.
- Non-perishable items were sourced from the small grocery shops in the villages were running out of supplies due to disruption of supply chain. These started raising the prices, which went up by 30% to 50%. At the same time, people had little liquid cash, and started bartering wheat from the recent harvest to buy these items.

Evidence of widespread food insecurity

- A cereal was reported to be present by 97% of the respondents, two-thirds had pulses, nearly half had milk and one third had nutritious vegetables. The amount of cereals available was adequate for about 5 months and that of pulses, oil/ghee, and sugar for about 1 to 2 weeks.
- Two-thirds of the respondents reported that food in their households was sometimes not sufficient for the amount they wanted to eat, and 97% of these mentioned not having money to buy food as the reason for not having sufficient food.

Method/approach

- Authors conducted a rapid assessment of food security in rural southern Rajasthan, India, using a structured questionnaire.
- Trained interviewers conducted telephonic interviews using KoBoToolbox, an open-source tool. A total of 211 respondents including community volunteers, family members of tuberculosis patients and malnourished children, pregnant women, and influential members in the villages participated in the study. Lockdown was announced in the region on March 22. The survey began on May 12 and ended on June 10.



Title: <u>COVID-19 and Its Impact on Agri-food Systems, Food Security and Nutrition: Implications</u> and Priorities for the Africa Region

Author or institution	FAO (FAO Regional Conference for Africa, 31 st Session)
Geographic focus	Sub-Saharan Africa
Population focus	All, focusing on the most marginalized
Technical focus	Availability and price of nutritious foodstuffs, Nutrition intervention delivery and coverage, GESI
Information type	Conference report
Date published	October 2020
Date added	December 2020

Purpose/objective of source

To identify the threat of COVID-19 on agri-food systems, availability and access to food and nutrition; the potential impacts of COVID-19 on availability and access to nutritious foods; as well as interventions to promote food security and nutrition in COVID-19 Response. The report also summarises FAO's regional response to COVID-19 in Sub Saharan Africa and identifies implications for FAO's regional priorities.

Main nutrition-related findings

The potential impacts of COVID-19 on availability and access to nutritious foods was highlighted in the report from the October 2020 conference report. The executive summary of the document states:

- COVID-19-induced disruptions affect the entire agri-food system, impacting both supply and demand channels at different points in time. Healthy diets were not affordable for about 829 million people in SSA in 2019, and high levels of unemployment, lost livelihoods and rising poverty levels due to COVID-19 c making affordable healthy diets out of reach for even more people in 2020.
- Vulnerable groups, living mostly in rural areas where labour is primarily informal (such as smallholder farmers, livestock keepers, artisanal fishers, persons whose livelihoods depend on the informal economy, women, youth, children engaged in child labour or at risk of child labour, and migrants) have been disproportionately affected by COVID-19.

Interventions to promote food security and nutrition in the COVID-19 response, were also presented in the executive summary. These include:

- Stimulus programmes should meet the needs of vulnerable and the most at-risk populations by expanding and improving emergency food assistance as well as enhancing nutrition interventions.
- Social protection programme should be expanded and adapted to address urgent emergency responses, protecting food security and livelihoods during the pandemic, and to address the recovery and rebuilding of livelihoods of vulnerable people.
- Interventions should consider specific gender roles in agri-food systems and address women's specific and multiple needs as guardians of household food security, food producers, farm managers, processors, traders, wage workers and entrepreneurs. Interventions should also integrate women and their Organisations and informal networks in the design and implementation of COVID-19 response and mitigation strategies.

Title: Estimating the potential effects of COVID-19 pandemic on food commodity prices and nutrition security in Nepal

Author or institution	Singh, et al. (Journal of Nutritional Science)
Geographic focus	Nepal
Population focus	Households
Technical focus	Availability and price of nutritious foodstuffs, Dietary Diversity and Dietary Practices



Information type	Journal Article (Peer reviewed)
Date published	October 2020
Date added	December 2020

To investigate the impact of COVID-19 control measures on food commodity prices and models the effect of food price changes on nutrition quality of diets in Nepal. It specifically examines the effect of price changes on micronutrient intake. It presents a comparative intra-country observational study design looking at events before and during the pandemic (after implementation of contagion control measures).

Main nutrition-related findings

- The study finds a substantial increase in food commodity prices across food groups (except animal proteins) and districts with marked inter-district variation. Pulses and vegetables and fruits showed the highest average price rise at 18 and 14 %, respectively, followed by roots and tubers and cereals at around 10 %. Animal proteins showed a very marginal increase in prices at 2 %. These figures come from primary data collection via phone surveys collecting food commodity prices. Prices were collected from two different independent sources- traders and farm cooperatives Even a nominal increase in food basket cost can have marked negative implications on the diet quality of the meals, impacting the intake of both macro and micronutrients.
- For school meal basket, all micronutrients show large average declines ranging from 9.5 % for zinc to 11 % for vitamin-A. For household food baskets on average, vitamin-A reduced 37 % followed by iron at 19 %, reduction in zinc is low due to the high zinc content in whole grain cereals. In order to estimate the impact of increased prices on the nutrient intake, authors undertook meal adjustment modelling for all school meals for the three districts.
- The change in consumption patterns to cope with increased prices might have the most serious impact on the diet quality of poor households. In terms of intra-household food allocation, women and children are likely to suffer disproportionately.
- COVID-19 control measures are likely to have contributed to substantial price inflation over the reference period with potentially damaging effects on nutrition security in Nepal with serious implications for vulnerable populations.

Method/Approach

- This study examines the effect of price changes on micronutrient intake. It presents a comparative intra-country observational study design looking at events before and during the pandemic (after implementation of contagion control measures).
- The study design includes three districts, enabling comparison between diverse agro-ecological zones and geographical contexts. The methodology consists of primary data collection, modelling and quantitative analysis. The analysis is based on actual school meal food baskets which represent culturally and nutritionally optimised food baskets, developed by the local community and notional typical household food baskets. End May/early June 2020 is the 'Post-COVID-19' reference point, the same time period in 2019 i.e. June 2019 is the 'Pre-COVID-19' reference point.

Author or institution	UNICEF MENA
Geographic focus	Middle East and North Africa – Mena regions (Algeria, Egypt, Jordan, Morocco, Qatar, Syria, Tunisia)
Population focus	Children
Technical focus	Availability and price of nutritious foodstuffs
Information type	Report
Date published	November 2020

Title: The impact of COVID-19 on children in the Middle East and North Africa



Date added

December 2020

Purpose/objective of source

To highlight results of phone interviews on how children's lives have been impacted during the first months of the COVID-19 pandemic in several key dimensions critical to children's development and well-being- including psychological well-being, social relations, education, access to health services and nutrition.

Main nutrition-related findings

The report covers many areas including the impact of confinement and lockdown measures on the children's social life and mental wellbeing, access to distance education during school closures, and children's health and nutrition, the main focus of this summary.

Issues related to children's health and nutrition reported by households include the following:

- The utilization of essential health services, including immunization, ante-natal and post-natal care
 peri-natal care, has been negatively impacted, as a result of factors affecting both the supply and the
 demand of these services, including the fear of getting infected with COVID-19 while at the health
 facilities.
- Nearly one out of five respondents mentioned the financial impacts of confinement and, specifically, having less money to spend on food. Because of lockdowns, 30% of respondents were not able to access healthy or nutritious foods at least once.
- While Households continue to prioritize providing food for their families (especially their children), the quality of the diets has been compromised which will further impact the nutritional status of children, further compromising the immunity of children. In some countries, respondents reported cutting their expenditures on food- mostly on red meat and fish, and then on fruits and vegetables, reducing both quantity and quality of the food consumed.

Data/study methodology

• The data presented in this study are based on information gathered from nearly 7,000 families in seven countries (Algeria, Egypt, Jordan, Morocco, Qatar, Syria and Tunisia) by UNICEF and its partners through phone interviews. Most interviews were carried out between April and July, which aligns with the first months of the pandemic as lockdowns, closures and confinement measures were put in place.

Author or institution	Elsahoryi et al. (Clinical Nutrition ESPEN)
Geographic focus	Jordan
Population focus	Individuals age 18 and over (not including refugees)
Technical focus	Availability and price of nutritious foodstuffs
Information type	Research Article
Date published	December 2020
Date added	December 2020

Title: Effect of Covid-19 on food security: A cross-sectional survey

Purpose/objective of source

The research aimed to assess the impacts of COVID-19 on household food security in Jordan during the first 4 weeks of the lockdown, state of acute malnutrition including the prevalence of food security and food insecurity, risk factors associated with food insecurity and main food groups associated with food insecurity during the lockdown.

Main nutrition-related findings

Results from the interviews reveal that



- Among the 3129 Jordanians surveyed, 23% were categorized as severely food insecure, 36% as
 moderately food insecure, and 41% as food secure. The risk of severe food insecurity was strongly
 correlated with factors such as monthly income per capita (especially among those living below the
 poverty line), the number of family members, individuals younger between 18 and 30 years old, and
 those who lived in rented houses.
- Severely food insecure individuals consumed more carbohydrates weekly, especially bread and rice
 intake (low cost, partially subsidized foods) whereas people categorized as food secure had higher
 weekly intake of the meat, poultry, and fish (high-cost foods). Consumption of fruits, vegetables, milk
 and milk products, oils, and sweets did not differ between food secure and food insecure groups due
 to the fact that the government prohibited food price hikes and that people were allowed to shop at
 nearby stores.

Data/methodology

• The data presented in this study rely on a cross-sectional study using a Web-based validated questionnaire. The Food Insecurity Experience Scale was used to measure the food insecurity during the first four weeks of the quarantine, and a modified food consumption score was used to determine the number of times the household consumes each food group.

Title In the shadows of the pandemic: the gendered impact of covid-19 on Rohingya and host communities

Author or institution	Intersectoral Coordination Group Gender (ICGG) Hub, ACAPS-NPM Analysis Hub, Care International, Oxfam, UN Women
Geographic focus	Cox's Bazar, Bangladesh
Population focus	All, including marginalised groups (female sex workers, transgender persons and people with disabilities)
Technical focus	The availability and price of nutritious foodstuffs, Dietary diversity and dietary practices
Information type	Rapid Gender Analysis
Date published	October 2020
Date added	December 2020

Purpose/objective of source

The research was conducted to understand the impact COVID-19 has had on age, gender and other social characteristics, and to analyse how the socio-cultural context helps or hinders people's ability to cope with the crisis. The report provides a detailed breakdown on the impact of COVID-19 in six key sectors and working group: Health, Protection, Communication with Communities, Education, Food Security, and Water, Sanitation and Hygiene (WASH).

Main nutrition-related findings

- Access to food assistance has been insufficient for Rohingya refugees, particularly single mothers, households headed by persons with disabilities, pregnant and lactating women, the elderly and children. Respondents additionally reported a deterioration in food quality. Host communities also face overwhelming difficulties accessing sufficient food, with women sharing concerns about changes in prices at the market, access to distributions and the lack of income.
- Three-quarters of women (76%) and men (74%) reported changes in distribution networks and market prices since the COVID-19 outbreak.
- Based on the interviews conducted among the Rohingya, the quality and quantity of food has worsened. Almost all women attributed the increased difficulty in accessing sufficient food to the increase in market prices (90%), sometimes coupled with a lack of income or savings to purchase items (64%).
- Women reported having to confront barriers in accessing distribution points and additional food.



- The economic consequences of the pandemic and its associated preventive measures have had one of the most significant impacts on women, girls, men and boys in both communities, affecting their livelihoods, which in turn limits their ability to seek services or meet their basic needs, and they have increased the risks concerning protection.
- Women, who are mostly- engaged in the informal economy, and vulnerable groups dependent on daily work, such as persons with disabilities, transgender persons and sex workers, have been hardest hit.
- Increased difficulties accessing health services have been reported during the pandemic. Women, children, transgender persons and persons with disabilities all face more barriers in accessing health services. There is an increase in mental health issues, in feelings of insecurity and stress across the board, particularly among men and boys. Previous work on protecting and empowering women and girls has been disrupted due to the containment measures

Study approach/methodology

 This Rapid Gender Analysis (RGA) was conducted by ISCG Gender Hub, CARE, Oxfam, ACAPS-NPM and UN Women. The RGA used a mixed methods approach, including secondary and primary data, and adapted the CARE Rapid Gender Analysis Toolkit. However, the analysis relies predominately on primary data with secondary data used to help understand the assessment results. Primary data collection conducted between 15 June and 9 July. A total of 152 quantitative questionnaires were conducted with Rohingya respondents (50% women) in camps. Another 120 questionnaires (42% women) were conducted in the host communities of Palong Khali, Jalia Palong and Nhilla. For the qualitative component, a total of 66 key informant interviews (27 Rohingya, 39 host community) were conducted by programme staff with 22 community members, 17 frontline workers, leaders and members of self-organized groups and 17 community-based groups (CBOs) and 10 local authorities.

2.4.4 Information collected under MQSUN+

Impacts of COVID-19 on Food Security and Nutrition: Developing Effective policy Responses to Address the Hunger and Malnutrition Pandemic

Author or institution:	Committee on World Food Security, High-Level Panel of Experts on Food Security and Nutrition
Geographic focus:	Global
Technical focus:	Diet, Food price and availability
Information type:	Informal
Date published:	September 2020
Date added:	14 October 2020

This issue paper presents a synthesis of information around threats to food and nutrition security posed by COVID-19 and provides a description of evidence on the observed effects on food security and food systems and access to social protection services since the pandemic began. Some highlights include:

- Pandemic-altered food environments have variable impacts on nutrition and dietary diversity. Informal
 markets, which typically sell more fresh fruit and vegetables, shut down, whilst retail outlets, which
 typically sell processed and packaged foods, remained open. As a result, poor households are likely
 to shift their spending away from fresh fruits and vegetables to less nutrient-rich foods. In North
 America, people have shifted to more direct access to fruits, vegetables, meats and fish.
- Uneven food price fluctuations during the pandemic are a product of complex factors, including export restrictions initially placed on some cereal crops such as rice and wheat in several exporting countries, currency depreciation and increased shipping costs as a result of disrupted supply chains.
- Authors warn that as the pandemic continues, people will exhaust their short-term coping strategies risking further food insecurity if lockdowns continue.
- The report proposes four urgent policy shifts including:
 - Transform food systems as a whole to diversify food systems.



- Shape food policies in ways that recognise inter-system linkages.
- Incorporate greater understanding of the complex interactions of different forms of malnutrition including obesity and micronutrient deficiencies.
- Transform and diversify food policies to fully take into account the specificity of each context.

Global Food Security Alert Report

Author or institution:	Famine Early Warning Systems Network (FEWS NET)
Geographic focus:	Global & Regional
Technical focus:	Nutrition intervention delivery, Food price and availability
Information type:	Informal
Date published:	September 2020 (periodically updated)
Date added:	14 October 2020

- Nearly seven months since the WHO's pandemic declaration, many countries have eased movement
 restrictions—put in place in March and April—which brought parts of the global economy to a halt. As
 labourers and goods are now able to move more freely, many economic activities have resumed,
 contributing to food security improvements in FEWS NET-monitored countries relative to mid-2020.
 However, millions of poor households are expected to continue facing difficulty meeting their basic
 food and non-food needs into 2021 as the global economic slowdown persists.
- Millions of poor households are expected to continue to experience reductions in income due to the
 lasting impacts of the COVID-19 pandemic. Across the 29 countries monitored by FEWS NET, 90 to
 100 million people are likely to face Crisis (IPC Phase 3) or worse outcomes in 2020 and need urgent
 humanitarian food assistance. FEWS NET also provides a peak global needs estimates for an
 additional 17 countries that it does not directly monitor. The combined estimated peak global needs
 for these 46 countries in 2020 is 113 million people. The high level of need is also driven by conflict
 and macroeconomic and weather shocks, including droughts and floods, and the desert locust
 up surge. These drivers, including the longer-term economic impacts of the pandemic, are anticipated
 to continue to negatively affect food security into 2021.

Food Crises and COVID-19 2020: Emerging Evidence and Implications. An Analysis of Acute Food Insecurity and Agri-food Systems during COVID-19 Pandemic Technical Note

Author or institution:	Global Network Against Food Crises
Geographic focus:	Global
Technical focus:	Diet, Food price and availability
Information type:	Informal
Date published:	15 September 2020
Date added:	29 September 2020

The note is based on emerging evidence from country-level food security analyses. The section entitled "Emerging evidence on the effects of COVID-19 and related policy response on agri-food systems", is based on an analysis of relevant policies and COVID-19-related urgent and essential restrictions from 15 FIRST country profiles between May and July 2020. The analysis is triangulated and complemented with emerging evidence from field monitoring systems and specific assessments of the potential impact of COVID-19 on food supply chains and rural livelihoods. Sources include FAO COVID-19 assessments ongoing in over 20 countries with food crises, available evidence and complementary sources from Global Network Against Food Crises partners' Global Food Security Cluster (gFSC) assessments, Famine Early Warning Systems Network (FEWS NET), Food Security Cluster, Integrated Food Security



Phase Classification/ Cadre Harmonisé (IPC/CH) analysis, World Food Programme's mobile Vulnerability Analysis and Mapping (WFP mVAM) food security monitoring, and other available evidence. To note, this report used a number of resources that have already been included in this report but may be one of the first to try to triangulate the information.

Highlights include:

- The 2020 IPC analysis, taking into account the effects of COVID-19, pointed to a significant deterioration with a 64% increase in the number of people food insecure in need of urgent assistance across the country compared with the peak reached in 2019-from 5.9 million (or 13% of the population analysed) in June-August 2019.
- Markets and food supply chains have largely stabilised, in part due to government support and action. after initial disruptions due to the effects of COVID-19 restrictions. However, structural deficiencies in countries with food crises remain, with related disruptions to agricultural production and other parts of the food supply chain. Analysis of the available country profiles (May-July) shows that relative market stabilisation can be attributed to two main factors: (i) the progressive ease of restrictions; and (ii) conducive policies targeting the food sector to facilitate its functioning.
- Despite the gradual stabilisation of food markets, reduced economic activity and associated reductions in employment, remittances, incomes and purchasing power, coupled with localised food price increases, have exacerbated most pre-existing COVID-19 food insecurity vulnerabilities.
- There is a mix of reporting regarding the changes in food prices due to the effects of the pandemic and the measures taken to contain its spread. Reported price changes may be different even for the same country.
- The impacts of COVID-19 on livelihoods and acute food insecurity are highly context-specific and affect population groups differently.
- There is a mix of reporting regarding food prices due to COVID-19 even for the same country. The main reasons for the contradictions can be summarised as:
 - Timing of measurement, coverage and baseline: Sometimes the inability to move products at the producer level to more distant markets forces producers to sell at local markets causing a sharp reduction of prices in local markets in rural areas. As a result, urban markets result in a reduced availability of food items. As restrictions ease, availability increases, and prices tend to fall and stabilise. However, prices of more expensive items, like fruits and meat, fall as demand falls. Prices also depend on local lockdowns.
 - External factors: Extreme events (disease, conflict) also have a large effect on food prices, difficult to distinguish from the effects of the restriction.

Country-specific case studies are included in the country-by-country analysis.

Author or institution:	Peter S. Goodman, Abdi Latif Dahir and Karan Deep Singh/New York Times
Geographic focus:	Global & Regional
Technical focus:	Diet, Food price and availability, Nutrition intervention delivery
Information type:	Informal
Date published:	11 September 2020
Date added:	23 September 2020

The Other Way COVID Will Kill: Hunger

This article highlights the likely impact of COVID-19 on hunger and malnutrition, drawing on primary anecdotal evidence and secondary evidence from international nongovernmental organisations and UN agencies in multiple countries. It explores issues related to how the impact of COVID-19 interacts with other shocks related to conflict, climate and the desert locust invasion in sub-Saharan Africa and South Asia.

It also examines the reduced availability of, and access to services, falling incomes and evidence of reduced demand for food crops in some contexts.



In addition to including first-person stories, it translates some of the emerging literature into publiclyaccessible language, e.g., "COVID has been yet another shock in what has been a terrible year in this region," from the WFP, and "Worldwide, the number of children younger than five caught in a state of socalled wasting—their weight so far below normal that they face an elevated risk of death, along with longterm health and developmental problems—is likely to grow by nearly seven million this year, or 14%" from <u>Headey.</u>

COVID-19 & Global Food Security

	Surianan and Ma Darmatt JEDDI
Author or institution:	Swinnen and Mc Dermott, IFPRI
Geographic focus:	Global
Technical focus:	Nutritional status, Diet, Food price and availability
Information type:	Informal
Date published:	August 2020
Date added:	25 August 2020

This new book (139 pages) published in August 2020 includes a series of short essays with countryspecific case studies. It focuses on a broad range of impacts with chapters on food security, poverty and inequality; diets and nutrition; labour restrictions and remittances; food trade; supply chains; gender; policy responses; the future of pandemics and food systems. Highlights include:

- An expected dangerous decline in dietary quality in LMIC countries stemming from the income losses
 related to government-mandated shutdowns and de-globalisation, as well as from the freezing of food
 transfer schemes such as school feeding programmes and the breakdown of food markets due to
 both demand shocks and supply constraints.
- COVID-19 is likely to increase food prices, both as a cause and consequence of food shortages.
- Reduced demand for vegetables, fruits and animal sources (main sources of essential micronutrients) due to income effects and unemployment resulting from COVID-19 mitigation measure. Previous research noted that these nutritious foods can cost as much as 10 times more expensive than calories from staples.
- Significant disruptions to the supply chain for vegetables and dairy have been noted in Ethiopia and dairy in India.
- Amongst the poor, urban poor and women are especially vulnerable.

The State of Food Security and Nutrition in the World 2020

 Harvests are expected to be good with the US Department of Agriculture projecting an increase of global wheat production of 5% and rice production to remain the same as in 2019.

Trade restrictions are the worst possible response to safeguard food security.

Author or institution:	FAO, IFAD, UNICEF, WFP and WHO
Geographic focus:	Global
Technical focus:	Nutritional status, Diet, Food price and availability
Information type:	Informal
Date published:	2020
Date added:	25 August 2020

This report highlights the food security and nutrition situation with projections for 2030 without factoring the impact of COVID-19. Highlights include:



- Globally, the burden of malnutrition in all its forms remains a challenge. According to current estimates, in 2019, 21.3% (144.0 million) of children under 5 years of age were stunted, 6.9% (47.0 million) wasted and 5.6% (38.3 million) overweight. The world is not on track to achieve the SDG 2.1 Zero Hunger target by 2030 the number of people undernourished is increasing (up by 10 million people in one year from 2018 to 2019).
- A preliminary assessment suggests that the COVID-19 pandemic may add between 83 and 132 million people to the total number of undernourished in the world in 2020 depending on the economic growth scenario.
- Dietary Diversity: Even without factoring the impacts of COVID-19, Africa is significantly off track to achieve the Zero Hunger target in 2030. If recent rates of increase persist, its prevalence of undernourishment (PoU) will rise from 19 to 26%.

Food Affordability: Globally, only one in three children 6 to 23 months of age meets the recommended minimum dietary diversity, with wide variation amongst the regions of the world. More than 57% or more of the population throughout sub-Saharan Africa and Southern Asia cannot afford a healthy diet. (These estimates do not include the additional impact of COVID-19).

Immediate Impact of Stay-at-Home Orders to Control COVID-19 Transmission on Socioeconomic Conditions, Food Insecurity, Mental Health, and Intimate Partner Violence in Bangladeshi Women and their Families: An Interrupted Time Series

Author or institution:	Hamadani et al. / The Lancet
Geographic focus:	Bangladesh
Technical focus:	Food price and availability
Information type:	Peer-reviewed journal
Date published:	25 August 2020
Date added:	08 September 2020

Tagging on to a randomised control trial, this study used a phone survey to assess food insecurity before (Feb 2020) and during lockdown (19 May-18 June 2020) in Rupganj Upazila, rural Bangladesh. Results related to nutrition include:

- Before the pandemic, 136 (6%) and 65 (3%) of 2420 families experienced moderate and severe food insecurity, respectively.
- This increased to 881 (37%) of and 371 (15%) of 2417 families during the lockdown.
- The number of families experiencing any level of food insecurity increased by 52% (p<0.0001).

Global Price Watch July 2020 Prices

Author or institution:	Famine Early Warning Systems Network (FEWS NET)
Geographic focus:	Global & Regional
Technical focus:	Food price and availability
Information type:	Informal
Date published:	August 2020
Date added:	08 September 2020 (Updated Monthly) - information remains the same as previous edition

• **Global:** International staple food markets remained well supplied. Rice and wheat prices decreased whilst maize and soybean prices increased on average in June. Global crude oil prices remained below average but increased further for a second consecutive month as countries continue to lift stayat-home orders whilst global fertiliser prices were stable or falling in June.



- West Africa: Market supplies were sufficient to meet demand but below last year given production deficits and COVID-19 related disruptions. Normal lean season demand increases continued but were at below-average levels given the low purchasing power and limited cross-border trade. Insecurity-related market disruptions persisted in the Greater Lake Chad basin and Tibesti region and Liptako-Gourma regions. Staple food prices were below average across much of the Sahel, but average to above average in deficit areas. Prices were substantially above average in Nigeria and coastal countries facing currency depreciation and high transport costs.
- East Africa: Staple food price trends varied across the region. COVID-19 related movement restrictions continued to contribute to some atypical supply, demand and price patterns. Maize prices declined in surplus-producing Uganda and Tanzania with the progression of May-to-August harvests and in a context of weak regional demand. Prices increased seasonally in Ethiopia, Somalia, South Sudan and Sudan as stocks tightened ahead of October-to-December harvests. Prices declined on urban markets of Kenya following the arrival of international imports. Good animal body conditions led to elevated livestock prices.
- Southern Africa: Maize supply on major markets continued increasing as the 2020/21 marketing
 year progressed in most countries of the region. Prices declined seasonally or stabilised in many
 countries. South Africa continued exporting maize to structurally-deficit countries of the region,
 notably Zimbabwe where regional imports have expanded considerably in recent months following the
 easing of phytosanitary (GMO) restrictions. Zambia maintained a ban on formal maize exports but
 continued exporting via informal channels due to favourable prices in neighbouring countries.
- **Central Asia:** Wheat price trends were stable or decreasing on average in Afghanistan. Wheat prices increased in Pakistan. In Yemen, the broader conflict and macroeconomic context continued to disrupt overall market functioning and food access; staple food prices remained above average.

Author or institution:	Teachout, M et al. / International Growth Centre & London School of Economics
Geographic focus:	Global
Technical focus:	Diet, Food price and availability
Information type:	Informal
Date published:	May 2020
Date added:	25 August 2020

The Economic Impact of COVID-19 Lockdowns in Sub-Saharan Africa

London School of Economics and International Growth Centre modelled the effects of containment measures on household consumption across sub-Saharan Africa using household data from Rwanda, latest poverty rate estimates from the World data lab, employment estimates from International Labour Organisation and lockdown measures from the Oxford COVID-19 response tracker. Highlights include:

- 41.0 million people (4.9%), including 4.8 million children under 5 years old, are very severely fooddeprived at the end of an 8-week lockdown.
- The urban poor is most at risk of suffering from income loss and food deprivation.
- A more prolonged income shock even smaller in magnitude or affecting fewer people will put millions of people at risk of severe food deprivation.
- With cash crop harvests to happen in the next few months in most of Eastern Africa, if disruptions prevent farmers from selling their products and food prices in urban areas rise, tens of millions more will be at risk of famine.

Impacts of COVID-19 on Small- and Medium-Sized Enterprises in the Food System: Result of an Online Survey

Author or institution: GAIN, WFP, SUN Business Network

Geographic focus:	Global
Technical focus:	Diet, Food price and availability
Information type:	Informal
Date published:	May 2020
Date added:	25 August 2020

GAIN and partners, including the Scaling Up Nutrition (SUN) Business Network, undertook a survey of food system SMEs in 17 countries in early May 2020, aiming to assess the impacts of the COVID-19 pandemic on their businesses and their support needs. Highlights include:

• 363 respondents, primarily from firms in the processing and distribution and grains, vegetables and fruit value chains, reported decreased sales (82%), difficulty accessing inputs (49%), difficulty paying staff (44%) and an urgent need for financial (81%) and technical (64%) support.

Subsequently, based on this information, MQSUN⁺ prepared a brief on <u>COVID-Sensitive Nutrition</u> Marketing Messages for Small and Medium Enterprises (SMEs) in <u>SUN Countries</u> which outlines nutrition and health claims and COVID-sensitive nutrition marketing messages which national SUN Business Network SMEs can tailor to their local context to help promote products that can contribute to good nutrition and healthy diets during and post the COVID-19 pandemic.

Review of Agrarian Studies Volume 10, Number 1

Author or institution:	Various
Publication:	The Journal of Foundation for Agrarian Studies
Geographic focus:	Global with a special reference to India
Technical focus:	Food price and availability
Information type:	Peer-reviewed journal
Date published:	January-June 2020
Date added:	25 August 2020

This edition of the Review of Agrarian Studies (peer-reviewed journal) contains continually updated research with this edition focusing on how COVID-19 impacts on food and health system and policy responses. It also includes a number of phone-based surveys in India. Summary of evidence:

In rural areas, the collapse in producer prices and farmers' difficulty selling their produce imply lower
prices and greater availability of a variety of foods. Yet, in many regions, food insecurity remains high,
mainly because of a large loss in incomes, according to several telephone surveys of rural workers
and farmers.

2.5 Nutrition intervention delivery and coverage

2.5.1 Summary overview

This section describes the most recent evidence and data relating to the indirect impact of COVID-19 on the delivery and coverage of nutrition sensitive and nutrition specific interventions in LMICs.

The source descriptions are organised in chronological order. An overview of all the sources which have been summarised under this section can be found in Box 5.

Box 5. List of sources on the impact of COVID-19 on nutrition intervention delivery and coverage

Impact of COVID-19 on nutrition intervention delivery and coverage

Most recent data and evidence (added in April 2021)

• The utilisation of basic MNCH care services decreased during April and May 2020 in **Bangladesh**, **Nigeria** and **South Africa**. <u>Ahmed</u> and colleagues suggest this is related to blanket coronavirus pandemic responses (lockdowns and social distancing) which deterred people from accessing basic MNCH care; health systems shifting their focus towards pandemic and away from essential healthcare services; as well as resource constraints.

Earlier data and evidence collected (August 2020–March 2021)

- The WFP is monitoring school meals during school closures and assessing alternative solutions to be implemented by governments or WFP. The latest estimates suggest that fewer children are missing out, as more countries begin to reopen schools. As of mid-March 2021, WFP estimates the number of children missing out on school meals at 260 million globally, compared to 267 million estimated in February 2021.
- Numerous adaptions have been made to community-based management of acute malnutrition (CMAM) of children under five during the COVID-19 pandemic. The most frequent is the introduction of the measurement of the MUAC by caregivers (referred to as "Family MUAC"), followed by modifications made to scheduled follow-up appointments for acute malnutrition treatment. Learnings from these adaptations have been documented and led to practical recommendations for improvement (Wrabel, 2021).
- The <u>WFP is monitoring school meals</u> during school closures and assessing alternative solutions to be implemented by government or WFP. As of 12 February 2021, globally 267 million children (49% girls) are missing out on school meals and 113 countries continue to implement school closures to curb the spread of COVID-19.
- A WFP and UNICEF Innocenti Working Paper publication estimates that in 2020, 39 billion in-school meals have been missed globally during school closures by children who were benefiting from school feeding programmes pre-crisis. Fifty two percent of school-meals missed were in LMICs (World Food Programme and UNICEF, 2021).
- The State of Acute Malnutrition's tracker for COVID-19 Adaptations in the Management of Acute Malnutrition includes a wealth of data on protocol adaptations for CMAM, including the introduction of measurement of mid-upper-arm circumference (MUAC) by caregivers, reduced frequency of follow-up visits during treatment, modified admission criteria, reduced dosage of therapeutic and/or supplementary food, and acute malnutrition treatment by community health workers.
- The latest estimates from <u>WFP's Global Monitoring of School Meals During COVID-19 School</u> <u>Closures</u> suggest a slight increase in the number of children missing out on meals at school to 264 million globally in January 2021, up from an estimated 246 in December 2020.
- A study on the impact of **Ethiopia's** flagship social protection programme on the adverse impacts of the COVID-19 pandemic on the food and nutrition security of households, mothers, and children reveals that two-thirds of respondents reported their incomes had fallen after the pandemic began. Almost half reported that their ability to satisfy their food needs had worsened.
- Freudenreich and colleagues recommend <u>evidence-based nutrition-sensitive interventions to</u> <u>increase food and nutrition security by addressing food system disruptions</u> during the COVID-19 pandemic in LMICs.
- <u>Alive & Thrive's implementation research</u> describes how IYCF interventions were interrupted, and in some cases, how they adapted to the COVID-19 pandemic in **Bangladesh**, Ethiopia, India and Nigeria.
- Programme approaches to support the continuation of SAM and MAM treatment services in Cox's Bazaar during the COVID-19 outbreak adapted by integrating acute malnutrition screening into a modified vitamin A supplementation campaign. The family MUAC-approach was introduced into a community MAMI programme in Ethiopia to enable home-based screening of infants under six months. A new type of reversible MUAC tape was used to support screening of children under six months and children up to age five years.
- <u>A report on disruptions to essential health services in Africa</u> during COVID-19 shows that the COVID-19 pandemic and its associated response have had demonstrable (in some countries severe) effect on access to essential health services across Africa.
- The UNICEF Global COVID-19 Situation Report of October 2020 highlights that the COVID-19
 pandemic could worsen the situation of child malnutrition, resulting from the reduced coverage of
 key high impact maternal and child health interventions. The data and evidence are limited to a
 portion of UNICEF operational countries only.



- The UNICEF composite dataset <u>tracking the situation of children during COVID-19</u> (2020, September 24) do not reveal many changes from the previous update. These results are limited to a portion of UNICEF operational countries.
- <u>WFP monitors School Meals During COVID-19 School Closures</u>. Based on the latest report, the number of children missing out on meals at school appears to be decreasing, while an increasing number of countries have found alternative solutions.
- Shumba and colleagues identified how COVID-19 and associated control measures impact the five domains of nurturing care in **Kenya**, focusing on the period from conception to four years of age (September 2020).
- <u>A blog on **India's** COVID-19 economic relief package</u> explains the essence of the agricultural reforms, their potential impacts and obstacles, and key factors that will determine their impact on India's future agricultural growth. It concludes that the agricultural reforms in India may increase food price volatility.
- <u>UNICEF country office data</u> shows widespread disruption to several key platforms through which key nutrition services are provided, and which are critical to protecting nutrition.
- The Every Woman Every Child Global Strategy 2016-2030 Report (<u>UNICEF, Sept 2020</u>) includes a section on the impact of COVID-19 on women's, children's and adolescents' health, and highlights potentially catastrophic outcomes of essential service disruptions.
- <u>Tracking the Situation of Children During COVID-19</u> indicates that the number of countries reporting disruptions to services has increased from 85 to 159 since the last update.
- Government measures to contain and mitigate the pandemic have far-reaching impacts. Recent multi-country estimates from a July <u>UNICEF survey</u> found that 68% of participating countries reported at least some disruption in health checks for children and immunisation services.
- A (May to July 2020) <u>survey of ministry of health officials</u> in WHO regions found that disruptions in up to 25 essential health services are affecting almost every country (90%), with greater disruptions in LMICs than in high-income countries.
- The Global Financing Facility <u>has released June to July 2020 data from District Health Information</u> <u>Systems-2/DHIS2</u>, examining the impacts of COVID-19 on health services. Childhood vaccination was the most disrupted service,
- UNICEF's newsletter <u>reported</u> having supported delivery of messages and counselling to 29 million caregivers on infant and young child feeding during the COVID-19 pandemic to date.
- The Standardized Monitoring and Assessment of Relief and Transitions (SMART) team reports in their newsletter that they are updating guidance (expected to be published soon), and its website has already set out some scenarios, for when nutrition assessment surveys should resume.
- A prospective observational study (KC et al., August 2020) in **Nepal** shows institutional neonatal mortality increased from 13 per 1,000 live births to 40 per 1,000 live births. Early initiation of breastfeeding decreased from 49% to 46%.
- A time-series (<u>Hamadani et al., August 2020</u>) in **Bangladesh** assesses food insecurity before (Feb 2020) and during lockdown) in a rural area. They find that 52% (N=2,417) of families experienced food insecurity during the lockdown—an increase of 52% compared to before the lockdown.
- The WFP is monitoring school meals during school closures and assessing alternative solutions from government or WFP. As of 4 September, globally 346 million children (47% girls) are missing out on school meals and 161 countries continue to close schools to curb the spread of COVID-19.
- <u>FEWS NET reports</u> that interrelated factors around movement restrictions and reduced economic activity during the pandemic are increasing humanitarian food assistance needs. <u>They also estimate</u> COVID-19's impacts on food production to vary over the coming year, with a potential for significant impacts in some regions.
- Many child nutrition and health services are disrupted (<u>UNICEF Situation Tracker for COVID-19</u> socioeconomic impacts June data, reported in July 2020). Likewise, school feeding programmes are greatly affected with a 75-100% drop in four of five focus countries.
- Social and behaviour change (SBC) for nutrition is adapting. A <u>July webinar</u> gave an overview of the <u>USAID guidance on SBC for nutrition during COVID-19</u>; of managing nutrition-related misinformation by repeating the facts rather than the myth; and of country (**Uganda and Kyrgyzstan**) experiences with adapting during COVID-19.
- An August webinar, <u>Safeguarding Progress Towards Improved Nutrition During the COVID-19</u> <u>Pandemic</u>, links to USAID's (June 2020) Guiding Principles and Recommendations for Nutrition in the Context of COVID-19, which summarises impacts and intervention priorities.



2.5.2 Most recent sources

Title: The effect of COVID-19 on maternal newborn and child health (MNCH) services in	
Bangladesh, Nigeria and South Africa: call for a contextualised pandemic response in LMICs	

Author or institution	Ahmed et al., International Journal for Equity and Health
Geographic focus	Bangladesh, Nigeria and South Africa
Population focus	Mothers, neonates and children
Technical focus	Nutrition Interventions - maternal, neonatal and child health
Information type	Journal Article – Commentary
Date published	March 2021
Date added	April 2021

Purpose/objective of source

To assess the disruption in utilisation of MNCH care as a result of the COVID-19 pandemic in April and May 2020 in Bangladesh, Nigeria and South Africa; and to highlight the need for a responsive health system approach to mitigate ongoing and future crises in MNCH care in these and other LMICs.

Main nutrition-related findings

 Utilisation of basic MNCH care decreased during the COVID-19 pandemic, with all three countries recording a decline in attendance at formal ANC in April and May 2020 in comparison to the same months in 2019 (see table 6 below). Attendance at family planning clinics and for child immunisation also declined in countries where data was available.

Table 6: Utilisation (%) of basic MNCH care by	months between 2019 and 2020
--	------------------------------

Country	Bangladesh	Nigeria		South Africa	
Indicator		АКТН	AWTH	GSH	SBAH
NVD	March: ↓31.7% April: ↓57.6%	April: ↓11.3% May: †9%	March: ↑24.5 April: ↑25.1 May: ↓7.3	March: ↓11% April: ↑14.3% May: ↑13.2%	March: ↑26.5 April: ↑39.6
CS	March: ↓50% April: ↓76.6.%	April: ↓10% May: †3.7%	March: ↓14.7 April: ↓18.8 May: ↓31.0	March: ↑4% April: ↑22% May: ↓2%	March: ↑7.2 April: ↑40.9
Total Deliveries (NVD + CS)	March: ↓40% April: ↓67%	April: ↓10.8% May: ↓5.4%	March: ↑14.1 April: ↑13.4 May: ↓17.1	March: ↓2% April: ↑19% May: ↑5%	March: ↑15.3 April: ↑40.4

Note: Nigeria - Aminu Kano Teaching Hospital (AKTH) and Abdullahi Wase Teaching Hospital (AWTH), Kano 4 South Africa: Groote Schuur Hospital (GSH), Cape Town and Steve Biko Academic Hospital, Pretoria

The declines in utilisation of basic MNCH care during the COVID-19 pandemic were related to the following:

- Lockdown regulations and the need for social distancing. This discouraged attendance in healthcare facilities including MNCH services, partly attributable to people's fear of contracting the infection.
- Lack of logistical support for healthcare providers and inadequate screening facilities made the circumstances unsafe for MNCH service provision. While a COVID test was often a precondition for gaining access to health facilities, including MNCH care, the countries studied experienced shortages in screening facilities and insufficient personal protection equipment.
- Authors state that the blanket coronavirus pandemic response (lockdowns and social distancing) is likely to undermine progress towards country-defined SDG targets and cause additional public health crises, including increases in mortality and morbidity of women and children, and by extension other vulnerable groups, especially in LMICs.
- The authors suggest that innovative strategies in LMIC contexts should prioritise maintaining existing health priorities (e.g. MNCH) while responding to the challenges of the COVID-19 pandemic. This involves adopting a holistic approach that considers social, political, economic



and cultural (SPEC) implications and addresses COVID-19 and non-COVID-19 related health needs.

Authors propose the following starting points for developing a more resilient health systems response for MNCH services in LMICs:

- Consult with local MNCH care providers and managers to understand the breadth of the socioeconomic impact of COVID-19 and related response measures, and their relation to MNCH care provision. This can provide the opportunity to consider/identify locallyacceptable measures to improve compliance with social distancing and the needs of the local healthcare providers.
- 2. Segregate the COVID-19 mitigation plans by the tiers of the health system (e.g. primary, secondary and tertiary) of the respective country. This can help identify the scope of MNCH care providers and managers at different levels of the heath system, and support adaptions of COVID-19 responses to the specific context.
- 3. Provide efficient and robust community-based education combined with COVID-19 testing and essential training on how to safely provide services during the pandemic. This can promote the continuing provision of existing MNCH services amidst the current and other potential COVID-like pandemics, while also ensuring appropriate essential task shifting, and limiting duplication and wastage of resources.
- 4. Integrate and embed the COVID-19 mitigation strategies within existing Health Management Information Systems (HMIS) of the respective countries, to facilitate acquisition of data on trends. This can help generate evidence-based policy decisions to inform resource allocation and tracking of MNCH and other non-COVID-19 services, as well as COVID-19 services.

GESI observations

 Authors state that the blanket COVID-19 pandemic response undermined the inherent community socioeconomic dynamics by ignoring SPEC factors, especially for socially vulnerable groups. This approach has affected health care priorities in LMICs, and is likely to cause the vulnerable groups to remain excluded over time.

Quality of the data / evidence (method)

- The authors use the National HMIS of Bangladesh and service data from two teaching hospitals in Nigeria and South Africa, where the HMIS was not readily available. They collected and compared information on utilisation of selected MNCH services for two months during the pandemic (April/May 2020) and the same months in 2019.
- While there may be associations, direct causality cannot be made between the utilisation of services and the COVID-19 pandemic.
- Services were operationalised into two groups: a) basic MNCH care that can be provided in the community or in the outpatient clinics of healthcare facilities (such as ANC, family planning (FP) and child immunisation services); and b) advanced MNCH care usually provided for patients admitted into healthcare facilities (such as normal vaginal deliveries (NVD) and caesarean sections (CS)). Authors then explored the underlying factors influencing the utilisation of these MNCH services during the COVID-19 pandemic, through informal discussion with key healthcare professionals and focused desk reviews of published scientific, grey and media-based information and country-specific healthcare policies.

2.5.3 Information collected in previous months by TASC

Title: Global Monitoring of School Meals During COVID-19 School Closures

Author or institution	World Food Programme
Geographic focus	Global
Population focus	Children



Technical focus	Intervention Delivery and Coverage
Information type	Dataset
Date published	December 2020
Date added	March 2021 (Updated from earlier data provided under MQSUN and TASC)

To monitor the provision of meals for school children during school closures and to assess alternative solutions from the government and/or WFP.

Main nutrition-related findings

- As of March 2021, WFP estimates the number of children missing out on school meals at 260 million globally, 49% of which are girls.
- This is a decrease from the previous 267 million estimated in February 2021, and below the 264 million children in January. However, it is higher than in December 2020, when 246 million children were estimated to be missing out on school meals.
- This latest figure remains well below the 369 million children estimated to be missing out on school meals at the peak of global school closures in April 2020.
- The number of countries with school closures has decreased from 113 countries in February 2021 to 93 in March 2021.
- The number of countries that have found alternative solutions to reach school children with meals remains at 79 as of March 2021, compared to the 58 countries reported in September 2020.

Quality of the data / evidence (method)

Data is not available for 126 countries.

Title: Adaptations to community based acute malnutrition treatment during the COVID-19 pandemic

Author or institution	Wrabel et al., Field Exchange (ENN)
Geographic focus	LMICs (Africa and South Asia focus mentioned in the paper)
Population focus	Children under five
Technical focus	Intervention Delivery
Information type	Magazine/ field publication (not peer reviewed)
Date published	January 2021
Date added	February 2021

Purpose/objective of source

To present initial lessons learned related to adaptations of CMAM interventions due to COVID-19 and to provide recommendations for improving these adaptations.

Main nutrition-related findings

 Numerous modifications have been made to the management of acute malnutrition of children under five during the COVID-19 pandemic, with the most frequent being the introduction of the MUAC measurement by caregivers (referred to as "Family MUAC"), followed by modifications to scheduled follow-up appointments for treatment. Modifications to CMAM admissions and discharge criteria have also been widespread.

Family MUAC: Common challenge

• Limited availability of MUAC tapes. This led to programmes targeting at-risk families such as those with children discharged from acute malnutrition treatment programmes rather than self-referrals from Family MUAC.

Family MUAC: Recommendations to address challenges experienced due to the modified approach
Engage with MUAC tape suppliers to procure sufficient tapes for wide distribution to maximise
coverage; train mothers how to check for oedema in addition to measuring MUAC and integrate
sensitisation on the causes of malnutrition and measures to prevent acute malnutrition; prepare
clinics for elevated caseloads that may result from an initial increase in self- referrals; retrain
caregivers who self-refer children with inaccurate measurements and encourage them to
continue health-seeking behaviours.

Modified frequency of follow-up appointments during CMAM treatment: Common challenges

- Staff in multiple contexts observed increases in the selling and sharing of nutrition products, possibly due to the larger rations distributed at each visit combined with families' livelihoods constraints.
- There were also concerns that nutrition status of those children enrolled may deteriorate during the longer gaps between visits.

Modified frequency of follow-up appointments during CMAM treatment: Recommendations to address challenges experienced due to the modified approach

Identify storage alternatives for families unable to safely manage the larger ration sizes that
accompany less frequent clinic visits; increase home visits to ensure robust caregiver support in
managing measured usage of larger rations between appointments; schedule more frequent
appointments for high-risk children; provide strong community sensitisation to reduce confusion
among caregivers and increase uptake of adapted schedules.

Quality of the data / evidence (method)

- Data for this article came from an ongoing mixed methods study in 36 countries that systematically documents, synthesises and analyses information regarding programmatic adaptations in the management of acute malnutrition in children under five in the context of COVID-19.
- Specific study methods included an online survey for implementing organisations (Action Against Hunger, with support from the United States Agency for International Development (USAID) and in collaboration with UNICEF and the United States Centers for Disease Control and Prevention (CDC)), semi-structured interviews with programme staff and secondary analyses of programmatic data. The study was well underway in January 2021, but the exact start date of the online survey and the number of countries covered were not listed by the source.
- The study was conducted by Action Against Hunger, with support from the United States Agency for International Development (USAID) and in collaboration with UNICEF and the United States Centers for Disease Control and Prevention (CDC).

Title: COVID-19: Missing More Than a Classroom The impact of school closures on		
children's nutrition		
Author or institution	Borkowski et al. World Food Programme and UNICEE	

Author or institution	Borkowski et al., World Food Programme and UNICEF
Geographic focus	Global (126 countries)
Population focus	Children and youth to age 21
Technical focus	Nutrition Interventions
Information type	Innocenti Working Paper (peer reviewed)
Date published	January 2021
Date added	February 2021

Purpose/objective of source

To present the impacts of school closures on nutrition and health, promising practices for adapting school feeding during school closures and considerations for school reopening.

Main nutrition-related findings

• In 2020, an estimated 39 billion school meals have been missed globally during school closures by children who previously benefited pre-crisis.



• Fifty two percent of school meals missed were in LMICs. On average, it is estimated that children missed 4 out of 10 school meals they should have received, with children in some countries missing 9 out of 10 school meals.

Report recommendations

- Identify and reach out to vulnerable children in the first 8,000 days who are at greatest risk of
 deteriorating nutrition outcomes due to suspension of school feeding programmes. Ongoing
 household assessment and data collection at the household level is necessary for identifying
 such children.
- Adapt/modify school feeding programmes during times of school closures. Potential adaptations include increasing distribution of take-home rations (as opposed to school meals), using cash transfers as a substitute for school feeding, or employing multimodal approaches such as redistributing money originally designated to provide school meals to buy basic food baskets for disadvantaged families.
- Leverage school feeding programmes to encourage children back to school and maintain enrolment after the crisis. Countries can take advantage of schools reopening by improving the programme design and address formerly neglected issues around school feeding, such as the quality of diets and food-fortification options.

GESI observations

• The report highlights the important of identifying and reaching the most nutritionally vulnerable children, as well as households where incomes and levels of food security have fallen during the COVID-19 crisis.

Quality of the data / evidence (method)

- This is an Innocenti working paper, which has been reviewed externally and internally within UNICEF.
- Most of the paper is based on a synthesis of previously published articles and reports.
- The estimate of the 39 billion school meals missed presented in this working paper is based on three data sources for 126 countries including the UNESCO database of school closures (210 countries from 16 February 2020 to 31 December 2020), WFP school feeding map (covering 126 countries which contains information on the number of children regularly receiving school meals by country), and UNESCO UIS (gives estimates of primary and secondary school aged population in each country).

Title: Adaptations to community-based acute malnutrition treatment during the COVID-19 pandemic

Author or institution	The State of Acute Malnutrition
Geographic focus	Global
Population focus	Children
Technical focus	Intervention Delivery and Coverage
Information type	Article, Data portal
Date published	January 2021
Date added	January 2021

Purpose/objective of source

After the onset of the COVID-19 pandemic, guidance was quickly released by the United Nations Children's Fund (UNICEF), the Global Nutrition Cluster (GNC), Global Technical Assistance Mechanism for Nutrition (GTAM) and the World Health Organisation (WHO). This guidance suggested a range of adaptations to acute malnutrition management programmes to enable service continuity. The State of Acute Malnutrition's tracker keeps record of various protocol adaptations across contexts, highlight innovative case studies, and aggregates available resources as part of a study by Action Against Hunger, USAID, UNICEF, and the US Center for Disease Control.



Main nutrition-related findings

CMAM adaptations studied in 42 countries "included the introduction of measurement of mid-upper-arm circumference (MUAC) by caregivers (referred to as Family MUAC), reduced frequency of follow-up visits during treatment, modified admission criteria, reduced dosage and acute malnutrition treatment by community health workers (CHWs) among others".

Figure 11. Number of countries implementing adaptations



- Overall, programme staff implementing Family MUAC reported that initiating and scaling this approach was largely successful. While the end activity of Family MUAC is consistent - training caregivers to measure children's MUAC - programme design varied widely, with some building on existing structures (such as Care Groups) and others using a stand-alone cascading training model. Both virtual and in-person training was used with limited availability of MUAC tapes cited as an issue.
- While typical treatment programmes involve weekly follow-up visits, protocols during COVID-19 were adapted to include fortnightly or monthly visits. Issues cited include selling/sharing of nutrition products due to larger dispatches and concerns about deterioration of a child's nutrition status in the extended gap.
- Adapted protocols most frequently included assessing only MUAC and oedema, while some also expanded MUAC thresholds after conducting a scoping assessment to capture children with low weight-for-height Z-scores (WHZ). Staff reportedly appreciated the reduced workload associated with eliminating these measurements although this may ultimately be offset by an overall increased workload associated with expanding MUAC thresholds.
- Overall, respondents reported that phone-based counselling allowed for continued contact with children in acute malnutrition treatment programmes despite movement restrictions. Clinic staff were sometimes able to engage with caregivers more frequently, however caregivers preferred homebased care and listed caregiving visits as essential for continuing care.

Knowledge gaps / areas for further research

The main gap relates to the limited number of countries and number of organisations surveyed within those countries. It would be useful to expand this. Further, all questions relate to adaptations due to COVID-19, with no time or date specified. It could be useful to know how adaptations have evolved over the course of the pandemic.

Quality of the data / evidence (method)

- As of November 23, 2020, 19 organisations (17 non-governmental organisations (NGOs) and two United Nations (UN) organisations) running operational programmes in 36 countries had completed the survey and 36 semi-structured interviews had been conducted.
- Limitations of and considerations when using this data, include a small sample of countries and, a small sample of organisations working within them and a lack of clarity around how these organisations were selected for surveying (likely only USAID implementing partners). Full results will not be available until mid-2021.

Title: COVID-19 and Food Security in Ethiopia : Do Social Protection Programmes Protect?



5

Author or institution	Abay et al. (World Bank Group/International Food Policy Research Institute)
Geographic focus	Ethiopia
Population focus	Households, mothers and children <5 included
Technical focus	Nutrition Intervention Delivery and Coverage, Social Protection
Information type	Policy Research Working Paper
Date published	November 2020
Date added	December 2020

Purpose/objective of source

To assess the impact of Ethiopia's flagship social protection program, the Productive Safety Net Programme (PSNP) on the adverse impacts of the COVID-19 pandemic on the food and nutrition security of households, mothers, and children. The analysis uses pre-pandemic, in-person household survey data and a post-pandemic phone survey.

Main nutrition-related findings

COVID-19 Impacts

- Mothers' and children's diets changed little, despite some changes in the composition of diets, with consumption of animal source foods declining significantly.
- Two-thirds of the respondents reported that their incomes had fallen after the pandemic began, and almost half reported that their ability to satisfy their food needs had worsened. Household food insecurity increased by 11.7 percentage points and the size of the food gap by 0.47 months in the aftermath of the onset of the pandemic.

Impacts of participation in the Productive Safety Net Programme:

- There was no evidence that participation in the PSNP protects mothers' and children's diets. This is, partly because households with limited market access cannot use the cash transfers to buy food, in kind transfers are likely given in consumption items the households already have (such as wheat and cooking oil), and lastly, the dietary diversity of mothers and children is already at a very low level and unlikely to decline further.
- The study finds that household food insecurity increased by 11.7 percentage points and the size of the food gap by 0.47 months in the aftermath of the onset of the pandemic. However, for those households participation in the PSNP, the likelihood of becoming food insecure increased by only 2.4 percentage points for PSNP households and the duration of the food gap increased by only 0.13 month.
- The protective role of the PSNP is greater for poorer households and those living in remote areas.
 PSNP households were less likely to reduce expenditures on health and education by 7.7 percentage points and less likely to reduce expenditures on agricultural inputs by 13 percentage points.



Figure 12. Food insecurity and food gap of poor households living in chronically food insecure districts where PSNP is implemented. Households participating in PSNP and those who do not



Quality of data/methodology

- This analysis uses pre-pandemic, in-person household survey data and a post-pandemic phone survey.
- Face-to-face surveys with mothers of children under the age of 24 months were conducted to assess how access to the PSNP had affected their food security and nutritional status. In June 2020, the team re-interviewed these mothers—approximately 1,500 in total—by phone. Hence, they were able to assess the extent to which household food security and diets of individual household members changed following the start of the pandemic in Ethiopia.
- These were selected from a previous face-face survey of PSNP and non-PSNP (but considered poor) households in August 2019.
- Some concern raised was that the sampling was not systematic between the two. The authors attempted to counter this by using aspects of each household previously recorded within the modelling. The authors conclude that the results are robust to definitions of PSNP participation, and different estimators applied for the non-randomness of mobile phone ownership

Author or institution	Freudenreich et al. (BMZ, DEval, IGZ, GAIN, IFAD)
Geographic focus	Global
Population focus	All, especially vulnerable groups such as women and children, youth, the elderly, migrants and poor informal-sector workers
Technical focus	Nutrition Intervention Delivery and Coverage (nutrition sensitive)
Information type	Policy Brief
Date published	October 2020
Date added	December 2020

Title: Effective interventions to increase food and nutrition security in response to COVID-19



Purpose

To recommend effective, evidence-based interventions to increase food and nutrition security by addressing direct disruptions in the food system related to the Covid-19 pandemic in LMICs, and to highlight impact pathway and specific adaptations in the context of the pandemic.

Main nutrition-related findings

The document identified various activities but only those that are nutrition-sensitive are discussed here Interventions Identified to increase food and nutrition security:

- Subsidising inputs for farmers not constrained by labour shortages.
- Post-harvest, storage and processing interventions to minimise losses due to due to labour shortages, market closures and changes in downstream processing and retail.
- Improve social safety nets and transfers through innovative delivery mechanisms. This includes
 replacing suspended school feeding programme s by take-home rations or cash transfers and
 promoting and maintaining food fortification schemes.

Context-specific adaptations and recommendations:

For interventions aimed at directly increasing food access, it is important to reach out to vulnerable groups such as women and children, youth, the elderly, migrants and poor informal-sector workers, as these groups are most affected by Covid-19. Respecting sanitation and hygiene standards are key for the effective implementation of any intervention to prevent the spread of Covid-19.

Knowledge gaps

More robust evidence is needed to understand the potential role of mechanization, different processing and storing interventions, especially cold chains, the role and needs of SMEs along the supply chain and the potential for e-commerce in food retail, and urban gardening interventions, and their impact on food and nutrition security.

Data/methodology applied

• The evidence provided in this policy brief is based on a review of existing literature

Author or institution	Alive and Thrive
Geographic focus	Ethiopia, Nigeria, India, and Bangladesh
Population focus	Pregnant and lactating women
Technical focus	Nutrition Intervention Delivery and Coverage (MIYCN)
Information type	Research Summary brief
Date published	October 2020
Date added	December 2020

Title: An Overview of Alive & Thrive's Implementation Research

Purpose/objective of source

The research summary brief describes the evaluation design, research questions, outcomes, and implementation status of maternal nutrition interventions in government (antenatal care) ANC services in Burkina Faso, Ethiopia, Bangladesh and India; an urban nutrition intervention in Bangladesh, an urban and rural nutrition intervention in Nigeria using SBCC platforms for IYCF, and an urban nutrition intervention in Nigeria via private health facilities. The brief also describes innovations for using home visits for nutrition in India, innovations for adolescent nutrition in Ethiopia, innovations for engaging fathers in complimentary feeding in Nigeria, and innovations in breastfeeding policies in South East Asia.



Main nutrition-related findings

Only information directly related to COVID-19 is reported in this summary. 4 out of 10 programme s experienced interruptions or made adaptations in response to the COVID-19 pandemic, which are described here in the findings.

Ethiopia, Intervention interruption

• The implementation of nutrition-related ANC services paused in April 2020 due to Covid-19 and the government's State of Emergency Order. Earliest to restart is August 2021.

Nigeria, Data collection interruption

 End-line data collection delayed for the urban and rural nutrition interventions in Nigeria using SBCC platforms for IYCF.

India, Covid-19 Adaptations

 In response to Covid-19, adaptations were made to maternal nutrition interventions in government ANC services in India in response. The programme conducted a phone survey with frontline workers and households in Bihar, Gujarat, Jharkand and Uttar Pradesh states; elicited information on solutions to strengthen delivery of services during COVID-19; and explored effects on household exposure to nutrition services and communications, nutrition practices and food security. All results forthcoming.

Bangladesh, Covid-19 Adaptations

 In response to Covid-19, adaptations were made to the urban nutrition programme s in NGOoperated facilities by incorporating the use of mobile-MIYCN and establishing social-distancing mechanisms. The programme also conducted phone surveys with frontline workers and clients to understand effects of COVID-19 on services, identified solutions to strengthen delivery and uptake of essential health and nutrition interventions, and explored COVID-19 impacts on households' access to health and nutrition services and communications, nutrition practices, food security and other livelihood aspects.

Data/study method

 The document brings together information from different evaluations carried out by Alive and Thrive. The information related to the adaptions in the interventions due to COVID-19 was based on small surveys.

Title: Integrating screening for acute malnutrition into the vitamin A supplementation campaign in the Rohingya camps during the COVID-19 pandemic

Author or institution	Rahimov et al. (Field Exchange- Emergency Nutrition Network)
Geographic focus	Bangladesh
Population focus	Children under 5
Technical focus	Nutrition Intervention, Delivery and Coverage, GESI, Nutrition intervention- acute malnutrition screening and vitamin A supplementation, GESI
Information type	Journal Article
Date published	October 2020
Date added	December 2020

Purpose/objective of source

To describe an adaptation of programme approaches to support the continuation of severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) treatment services in Cox' Bazaar during the Covid-19 outbreak. The adaptation involved the integration of acute malnutrition screening into a modified vitamin A supplementation campaign conducted in the Rohingya camps between 21st June and 15th July 2020.



Main nutrition-related findings

Vitamin A supplementation campaigns provide a 'natural fit' for community nutrition services

• The screening of children aged 6-59 months of age with mid-upper arm circumference (MUAC), integrated within the vitamin A supplementation campaign enabled the id entification of almost 21,489 children with severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) using adjusted MUAC thresholds (MUAC <120 mm and <135 mm respectively). The experience shows that screening for acute malnutrition can be successfully combined with vitamin A supplementation, given that the target age group is the same. At the same time, the modified MUAC cut-offs increased nutrition referral rates with particular impact on therapeutic supplementary feeding programmes (TSFPs). This situation is being monitored closely and decisions will be made to ensure continued high coverage of essential nutrition services.

Identification of children with disabilities integrated into screening

• Children with disabilities were identified using a simple questionnaire (based on DFID/FCDO's 2019 'Guidance on strengthening disability inclusion in Humanitarian Response Plans') carried out with the caregiver, the purpose of which was to screen and refer children for a more detailed assessment. Children identified with disabilities were referred to available disability services (for example, services provided by Handicap International).

Covid-19 Infections did not increase

- The number of cases of Covid-19 infection reported by the Health Sector did not increase following the vitamin A supplementation campaign which suggests that, although many factors are involved, it may be possible to safely implement further rounds during the COVID-19 pandemic using the adapted strategies and implementing infection prevention and control (IPC) measures.
- Adapted strategies included shifting to door-to-door visits instead of mass gatherings, and recruitment
 and use of locally hired Community Nutrition Volunteers (CNVs) from the Rohingya communities
 (rather than the typically used Bangladeshi CNVs).

Data Collection Methods

• Data for this article comes from field monitoring and evaluation reporting from the nutrition Sector in Bangladesh, specifically the Technical Working Groups and the Section of UNICEF's office in Cox's Bazar which provided vitamin A supplements, designed the content of the integrated supplementation campaign and developed and distributed the communication materials.

Author or institution	UNICEF
Geographic focus	Global
Population focus	Children
Technical focus	Intervention Delivery and Coverage
Information type	Report
Date published	November 2020
Date added	December 2020

Title: UNICEF GLOBAL COVID-19 Situation Report: No. 14 October 2020

Purpose/objective of source

• UNICEF's situation reports provide an update on the situation and needs of children in a country or region, as well as information on UNICEF's response and funding requirements.

Main nutrition-related findings

 With regard to the delivery of services, UNICEF "continued to ensure access to essential nutrition services, including the protection of diets and practices, providing guidance and tools on how to breastfeed and supporting infant and young child feeding practices."



- Over 3.7 million children 6-59 months have been admitted for treatment of Severe Acute Malnutrition
- Over 36.5 million caregivers of children (0-23 months) have been reached with messages and counselling on infant and young child feeding including hygiene and IPC practices with UNICEF's support."

Figure 13. Results trend for four health and nutrition pillar indicators throughout the 8 months of COVID-19 pandemic (Numbers are from the beginning of the pandemic and should be read as in addition to UNICEF's regular programming)



Data

• Data is based on reporting by UNICEF country offices and is limited to the reported results from 77 countries for essential services), 74 for breastfeeding messaging), 54 countries for SAM treatment, and 56 countries for staff training.

Title: Implementing the family-MUAC approach for infants under 6 months in the context of COVID-19 in Ethiopia

Author or institution	Rana et al. (Field Exchange- Emergency Nutrition Network)
Geographic focus	Ethiopia
Population focus	Infants and children under 5
Technical focus	Nutrition Intervention Delivery and Coverage- (MAMI)
Information type	Journal Article
Date published	November 2020
Date added	December 2020

Purpose/objective of source

To describe adaptations made in response to the Covid-19 pandemic to community Management of Atrisk Mothers and Infants under 6 months (MAMI) programme in Gambela, Ethiopia and corresponding results.

Main nutrition-related findings

Two types of adaptations made

- The family MUAC approach was introduced to enable home-based screening of infants under six months.
- A new type of reversible MUAC tape was introduced to allow for the specifics of screening children less than 6 months of age as well as for children up to 5 years.

Corresponding results



- Measurement accuracy analysis showed that the vast majority of family caregivers trained by Community Outreach Agents (COAs) correctly identified the MUAC of their infants.
- There was a greater total percentage of admissions coming from community-focused active case finding over facility based and mass screening activities.

Knowledge gaps /risks

Need to further investigate the durability of the tapes, to better understand and address confusion in tape utility, and identify where barriers are arising in referral mechanisms. These topics are currently under investigation (and results will be integrated into refresher training in January 2021).

Title: USING DATA TO FIND A BALANCE: Disruption to essential health services in Africa during COVID-19

Author or institution	Partnership for Evidence-Based Response to COVID-19 (PERC)
Geographic focus	Africa
Population focus	General
Technical focus	Nutrition Intervention Delivery and Coverage
Information type	Report
Date published	November 2020
Date added	December 2020

Purpose/objective of source

• This brief builds on the September 2020 "<u>Responding to COVID-19 in Africa: Using Data to Find a</u> <u>Balance</u>" report from the Partnership for Evidence-Based Response to COVID-19 (PERC) to assess the extent of self-reported disruptions to essential health services brought on by COVID-19, to analyse who is most at risk, and to identify the common barriers reported by respondents when attempting to access care.

Main nutrition-related findings

- "The COVID-19 pandemic and its associated response have created a significant downstream effect on access to essential health services in Africa."
- "The indirect effects of COVID-19 on essential health services in Africa have been severe"
- "Health care disruptions were highest among those with health problems and living in urban areas. Half of respondents with long-standing illnesses (including diabetes) reported disruptions to accessing health care."
- Over one-third (34%) of respondents reported they missed or delayed visits for noncommunicable disease-related issues, with <u>disruptions to care sought for cardiovascular disease, diabetes</u> and respiratory/asthma reported most common.
- "Safety concerns and affordability of care were key barriers to access, however, more than half of respondents reported that mobility restrictions, coupled with health facility disruptions, contributed to their missing or delaying services."
- All surveyed AU Member States reported high levels of food insecurity and income loss.

Figure 14. Percentage of respondents reporting experiencing burdens and any received government assistance (<u>Responding to COVID-19 in Africa: Using Data to Find a Balance</u>, 2020).



72% Experienced any barrier to food access		
70% Experienced income loss		
14% Received government assistance		

Data

Ipsos conducted telephone interviews with 24,041 adults aged 18+ in 18 countries from 4 to 17
August 2020. The questionnaire was developed by Resolve to Save Lives, Ipsos and members of the
Partnership for Evidence-Based Response to COVID-19 (PERC) consortium. Samples were drawn to
be nationally representative of each AU Member State; weighting was applied by gender, urban/rural
and geographic region to align the final data with the population.

Title: Tracking the situation of children during COVID-19

Author or institution	UNICEF
Geographic focus	Global
Population focus	Children
Technical focus	Nutrition Intervention Delivery and Coverage
Information type	Composite dataset
Date published	September 2020 (analysis updated 09/12/2020)
Date added	December 2020

Purpose/objective of source

UNICEF is tracking how "measures taken by governments to contain and mitigate the pandemic are having persistent and far-reaching impacts on children's lives".

For nutrition effects, this includes attempting to answer the following questions:

- Approximate level of COVID-19 relevant change in coverage of nutrition services nationally;
- Top reasons for nutrition service/use disruption across reporting COs;
- If facing stock outs of key supplies for management of AM, what percentage of national health and nutrition facilities reported Ready to Use Therapeutic Food (RUTF) stock outs in last month;
- Violations of International Code of Marketing of Breastmilk Substitutes in relation to the COVID-19 response in the last month;
- Adaptations being implemented to ensure management of AM is sustained;
- Adaptations being implemented to ensure continuity of micronutrient powders supplementation for children 6-59 months;
- New/adapted measures to support families on what, when and how to feed young children during complementary feeding period.

Main nutrition-related findings

- The nutrition services with the highest levels of any reported disruption are iron and folic acid supplementation for adolescent girls (72%), vitamin A supplementation (58%), treatment for child wasting (58%) and screening for child wasting (50%). In nutrition-related social protection services, there has been a 78% reduction in school feeding or take-home rations.
- Worryingly, 23% of countries reported 25% or more reduction in the use of programmes treating child wasting with Indonesia and Nepal, reporting 75%-100% reductions in service use, and India, Bangladesh, Papua New Guinea and Peru reporting decreases between 50% - 74%.



- Amongst the 102 countries reporting reasons for disruptions, 68% reported a reduction in demand due to fear of infection, 64% client mobility restrictions, 32% closure of services, 29% providers' mobility restrictions and 28% interruption of community engagement.
- Amongst 116 countries reporting on RUTF stock-outs, 80% report none, 11% report stock-outs in less than 25% of facilities and 6% report stock-outs in more than 50%.
- Adaptations to ensure sustaining the management of acute malnutrition: reducing the regularity of visits, MUAC by caregivers and increasing district- or facility-level stock (all reported in 37% of 79 countries). 25% of countries report adapting by treating wasted children without complications with one RUTF product; 23% report community health workers providing treatment of uncomplicated wasting; and 22% report use of simplified criteria (<120mm or <125mm MUAC and/or oedema) for admission, follow up and discharge.
- Reported adaptations to ensure continuity of micronutrient powder supplementation include physical distancing at the health facility (53% of 53 countries), use of community-based platforms (26%) and increasing sizes and reducing the frequency of distribution (11%).
- Of 102 countries reporting, three-quarters (76) report having introduced adapted measures to support families on what, when and how to feed young children during the complementary period.
- 41 countries (of 79 that reported) report violations of the International Code of the Marketing of Breastmilk Substitutes. The most common being donations of BMS, bottles and teats from agencies, donors or companies (19 countries), distribution of milk products which could be used as BMS (15), accepting unsolicited donations (8) and inadequate labelling (7). Latin America and the Caribbean reported violations in 11 countries; other regions reported violations in 4-7 countries.

Method/data collection

- This dashboard is based on quarterly updates of recent data collection efforts from UNICEF country offices drawing on best available sources in each country, including administrative data or representative survey data collected in the last 3 months; or where necessary, extrapolations from reliable localized quantitative and/or qualitative reports. Estimates may not accurately represent the full national response to the COVID-19 pandemic.
- Some caution should be employed when using these results since there are anomalies, large gaps and subjectivities. See data section below table.
- The current version presents highlights as of late August 2020. According to the UNICEF website, the next update might take place in Q1 2021 (approximately March 2021).



Table 7. Global Service Disruption in Child Nutrition Services up until late August (% of countries reporting drops in services, compared to the same time period the previous year).*

Change in service use	Child wasting treatment	Child wasting screening	Protection & promotion of breastfeeding	Diet promotion (6-23 months)	School feeding, take- home rations	IFA supp. (Adolescent girls)	PLW counselling & weight monitoring	Home fortification (MNP)	supp. (6-59 months)	Food fortification (Salt/ oil/wheat)	Food subsidies
Increase/ new	12%	9%	10%	6%	2%	0%	8%	6%	11%	0%	53%
No change	30%	41%	44%	48%	21%	28%	38%	58%	31%	83%	34%
<10% drop	18%	12%	11%	6%	3%	8%	15%	4%	11%	7%	3%
10-24% drop	18%	18%	18%	22%	3%	4%	22%	8%	13%	5%	3%
25-49% drop	15%	7%	13%	14%	5%	8%	14%	17%	19%	2%	0%
50-74% drop	5%	7%	1%	4%	10%	16%	2%	2%	9%	2%	6%
75-100% drop	3%	5%	2%	1%	57%	36%	1%	6%	6%	2%	0%
Any reduction	58%	50%	45%	47%	78%	72%	54%	37%	58%	17%	13%
N** =	74	94	106	103	63	25	87	52	80	60	32

*Data covers varying lengths of time from March 12th through late August. The base reference period is the same time period in 2019.

** The proportions in the table excludes countries with "Don't know" or "Not applicable" responses.

Analysis updated 09/12/2020

Data

- Coverage of reporting countries are mostly low-income and middle income, and the list is not complete. There are 159 countries, of which 127 report on nutrition services however this reduces dramatically for some indicators when 'Don't know' and 'Not applicable' is removed.
- Responses rely on various sources and best estimates may combine multiple sources. It is majority admin data and less so survey data.
- Raw data is not currently shared, and there are some anomalies in reported information.
- Figures may not accurately represent the full national response to the COVID-19 pandemic.
- The base reference period is not provided, being variously reported as "admin/survey data from the last three months", "Other/older sources" and "null".
- It relies on knowledge of country-based UNICEF staff; the long questionnaire may reduce the quality of responses.



Title: <u>Reorienting Nurturing Care for Early Childhood Development during the COVID-19</u> Pandemic in Kenya: A Review

Author or institution	Shumba et al. (International Journal of Environmental Research and Public Health
Geographic focus Kenya	
Population focus	Conception to four years of age
Technical focus	Nutrition Intervention Delivery and Coverage (nurturing care)
Information type	Journal Article
Date published	September 2020
Date added	December 2020

Purpose/objective of source

To elucidate how COVID-19 and associated control measures impact the five domains of nurturing care in Kenya (direct health, health and nutrition systems, economic protection, social and child protection, and child development and early learning), focusing on the period from conception to four years of age.

Main nutrition-related findings

Impacts

- Indirect health impacts related to nutrition include reduced access to, delayed and low uptake of antenatal, maternal, infant and child health and nutrition services.
- Economic impacts lead to losses in income and increased poverty levels, ultimately reducing access to nutritious foods.

Direct health and nutrition system support

• Support could include some or a combination of the following: cash transfers, food packs, mobile health and nutrition services, as well as regular support and monitoring by child protection teams.

Knowledge gaps

Little research is currently published on how to support nurturing care for children under 4 years in the wake of such a pandemic, especially in Africa. There is still a lot to learn on what can work and what cannot.

Author or institution	IFPRI, S. Mahendra, Dev
Geographic focus	India
Population focus	Households
Technical focus	Global policy and responses; A
Information type	Blog
Date published	October 2020
Date added	December 2020

Title: COVID-19 crisis: An opportunity for long-delayed agricultural reforms in India

Purpose/objective of source

 In May, the Indian government announced a COVID-19 economic relief package called Atmanirbhar Bharat (Self Reliant India) totalling about \$270 billion, equal to 10% of the country's GDP



• S. Mahendra Dev of the Indira Gandhi Institute of Development Research explains the essence of the reforms, their potential impacts and obstacles, and key factors that will determine their impact on India's future agricultural growth

Main nutrition-related findings

- The government has used the COVID-19 crisis as an opportunity to push through significant agricultural reforms that will have many medium- and long-term impacts.
- The three major reforms, which became law in September, include:
- Reforming India's Agricultural Produce Market Committees (APMCs), state boards that tightly control sales. The new law eliminates interstate trade barriers and allows e-trading, opening up options for farmers to sell their produce beyond the previously mandated APMC yards (mandis) and seek better prices.
- Creating a legal framework for contract farming, allowing farmers to contract with buyers on prices and quantities before planting, better ensuring incomes.
- Limiting the reach of the Essential Commodities Act—which allows the government to control prices
 and impose stock limits of certain "essential" items—exempting important products including cereals,
 oilseed, onions, potatoes and pulses. This creates an incentive for private sector investment in supply
 chains.

Concerns and uncertainties

- An uncertain track record for state reform. After Bihar abolished APMCs in 2006, studies have shown an <u>increase in food price volatility</u> in the state. Thus, policy changes alone may not be enough to reform the agriculture market system.
- <u>Will smallholders' benefit?</u> This is also still unclear and depends on a number of other agricultural policies including on institutional credit, on targeted input subsidies, and the success of Farmer Producers Organisations.
- Will the government follow its own laws? In September, the government imposed an export ban on onions as supplies fell and <u>domestic prices rose</u>; this is inconsistent with Essential Commodities Act reforms.

2.5.4 Information collected in previous months by MQSUN+

Protect the Progress: Rise, Refocus, Recover. 2020 Progress Report on the Every Woman Every Child Global Strategy for Women's, Children's and Adolescents' Health (2016-2030)

Author or institution:	UNICEF
Geographic focus:	Global / regional / country
Technical focus:	Nutrition intervention delivery
Information type:	Informal
Date published:	September 2020
Date added:	29 September 2020

The 15-year Every Woman Every Child Global strategy includes a section on the impact of COVID-19 on women's, children's and adolescents' health and highlights the following:

- The COVID-19 pandemic threatens to turn back the clock on years of progress in reproductive, maternal, child and adolescent health. Models of the potential outcomes of various levels of essential service disruptions show catastrophic consequences and can be useful for encouraging governments and partners to ensure such disruptions do not occur. For example, antenatal care attendance dropped in the wake of the pandemic in Lagos State (<u>Nigeria National Health Management</u> <u>Information System [NHMIS]. July 2020</u>).
- **Call to action:** Throughout the COVID-19 response and recovery, urge governments to protect and promote the health and rights of women, children and adolescents through strengthened political commitment, policies and domestic resource mobilisation and financing, supported by official development assistance.



Monitoring Continuity of Essential Health Services during the COVID-19 Pandemic

Author or institution:	Global Financing Facility
Geographic focus:	Nigeria; Afghanistan; Liberia
Technical focus:	Nutrition intervention delivery
Information type:	Informal
Date published:	18 September 2020
Date added:	23 September 2020

This blog post from the Global Financing Facility reports on analyses of data DHIS2 reported by more than 63,000 facilities in 10 countries. Whilst the monitoring is continuous, the analysis of data through June/July 2020 includes the following findings:

- Childhood vaccination was the most disrupted service amongst the countries studied, with a significant drop in the number of children given the third dose of Pentavalent vaccine in Liberia (31% drop), Nigeria (13%) and Afghanistan (11%).
- The number of outpatient consultations fell for at least one month in all countries where this was monitored, although some of the reductions in utilisation were found to have improved by June.
- There are no generalised changes in maternal health services, although disruptions were detected in several countries. For example, the number of women who attended all four recommended medical visits during pregnancy dropped in Liberia (18% in April), and the initiation of women seeking medical care during pregnancy fell in Nigeria (16% in April).
- **Disruptions vary across indicators and countries.** For example, in Nigeria, there was a more than 10% decrease in April and in May a 15% decrease in family planning services, and a 6% decrease in women delivering babies at health facilities. However, there are mixed results across indicators in most countries. For example, in Afghanistan, whilst there were no significant changes in postnatal consultations as a result of the crisis, there was a 14% drop in outpatient consultations. Results from June and July show that essential services have improved in most countries, but some disruptions persist.
- The authors note results should be interpreted with care, and with knowledge of the inherent limitations of HMIS data described above.

Author or institution:	KC et al. / The Lancet
Geographic focus:	Nepal
Technical focus:	Nutritional status, Breastfeeding, Nutrition intervention delivery
Information type:	Peer-reviewed journal
Date published:	10 August 2020
Date added:	08 September 2020

Effect of the COVID-19 Pandemic Response on Intrapartum Care, Stillbirth, and Neonatal Mortality Outcomes in Nepal: A Prospective Observational Study

This prospective observational study was conducted to shed light on how the pandemic response is affecting maternal and neonatal health services, especially given dramatic improvements in neonatal mortality over the past 20 years, which the authors attribute to improved prenatal and delivery care. It aimed to assess the number of and outcomes from institutional deliveries, as well as the quality of delivery care 12.5 weeks before and then during Nepal's national lockdown. Highlights include:

• The number of institutional births decreased dramatically, 1,261 before lockdown to 651 during lockdown (a reduction of 52%).



- Health workers' hand hygiene practices during childbirth improved by 13% (12% to 14%) during lockdown (p<0.0001).
- The immediate newborn care practice of placing the baby skin-to-skin with their mother increased by 13% (12% to 15%; p<0.0001).
- Unfortunately, early initiation of breastfeeding (1hr) reduced from 49% to 46% (p=0.0032).
- As well, institutional neonatal mortality increased from 13 per 1000 live births to 40 per 1000 live births (p=0.0022).

The study comments that whilst some behaviours improved (notably hand hygiene and skin-to-skin with mother), an urgent need exists to protect access to high-quality intrapartum care to prevent excess deaths during the pandemic period. The authors believe this to be the first and perhaps largest documentation to date of service reduction during COVID-19.

The Secondary Impacts of COVID-19 on Women and Girls in Sub-Saharan Africa
--

Author or institution:	Rafaeli and Hutchinson / K4D
Geographic focus:	Global
Technical focus:	Nutritional status, Nutrition intervention delivery, Diet, Food price and availability
Information type:	Informal
Date published:	June 2020
Date added:	August 2020

This review explored the secondary impact of similar outbreaks in the region and globally, most notably from the Ebola crises. Global data or data from other regions have been used in the absence of data which may vary in context and applicability. Highlights include:

 Despite limited evidence, the review found emerging evidence and lessons from past health crises, there is strong evidence to suggest that women and girls in SSA will suffer from extreme and multifaceted negative secondary impact as a result of the COVID-19 crisis. This includes reduced access to healthcare and WASH alongside increased maternal deaths, an increase in unplanned pregnancies and greater food insecurity and malnutrition.



3 Global Policy and Related Responses

This chapter summarises new data and evidence relating to the policy responses which address the indirect impacts of COVID-19 on nutrition in LMICs. It focuses specifically on selected outcomes and outputs including nutritional status (stunting, wasting, overnutrition and micronutrient deficiencies); breastfeeding practices; dietary diversity and dietary practices – particularly among women and children; the availability and price of nutritious foodstuffs; and nutrition intervention delivery and coverage.

Source descriptions are presented in chronological order.

3.1 Summary overview

The sources which have been summarised under this section can be found in box 6.

Box 6. List of sources on the impact of COVID-19 on the global policy and related responses.

Impact of COVID-19 on the global policy and related responses

Most recent data and evidence (added in April 2021)

- Writing in the Lancet, <u>Heidkamp at al</u>. provide evidence on necessary actions to accelerate progress towards maternal and child nutrition targets, especially with the impediments of the COVID-19 pandemic. These include those policies and interventions targeting the first 1,000 days of life (conception to 24 months of age), which require renewed commitment, implementation research, and increased funding from both domestic and global actors.
- Exploring the ways that COVID-19 has impacted general research methods, <u>Strachan (2021)</u> summarises the opportunities and challenges relating to remote data collection during the COVID-19 pandemic.
- The WFP <u>estimates</u> the number of children missing out on school meals at 234 million globally as of late April 2021, fewer than the 260 million estimated in mid-March 2021.

Earlier data and evidence collected (August 2020-March 2021)

- This blog by Townsend and Gautam (2021) highlights how COVID-19 has impacted the food security of the poorest and most vulnerable countries. It describes how, in response, IDA has provided US\$5.3 billion in new commitments to improve food security. Of this, about half was dedicated to meeting immediate needs, and the remaining half to addressing the longer-term drivers of food insecurity.
- The Global Humanitarian Response Plan (GHRP) COVID-19 Progress Report provides an overview on cumulative progress related to agreed activities between March and December 2020, including data on specific health and nutrition services. The report states that 29 countries have activated the Nutrition Coordination mechanism in response to COVID-19 and/or its impacts.
- The International Monetary Fund's Policy Tracker summarises key economic responses that governments are taking to limit the human and economic impact of the COVID-19 from 2020 to date, in 197 countries. Policy measures include, but are not limited to, efforts to improve healthcare; improving access to services and supplies; agriculture subsidy programmes to boost national food production; and increases in social protection programming including cash and food assistance.
- The Asia and the Pacific Regional Overview of Food Security and Nutrition 2020 report calls for greater investment in primary data collection, especially for the measurement of the impact COVID-19 on food security and nutrition.
- A briefing from the <u>SUN Movement</u> explains why and how a comprehensive, multisectoral approach to nutrition should be integrated into the COVID-19 response and recovery effort, and recommends "what must be done" in the areas of nutrition polices and programming, financing, and food systems.
- A report from <u>Save the Children</u> warns that pandemic-related malnutrition is projected to kill an average of 153 children a day/168,000 children by 2022 if action is not taken, and proposes a set of recommendations to accelerate progress on nutrition.
- The <u>research roadmap</u> developed by the UN in support of a better socioeconomic recovery and a more equitable, resilient and sustainable future defines the policy priorities and identifies a set of 25 research priorities. Although only one sub-question relates directly to nutrition, many of the other research questions, if answered, will indirectly inform the multisectoral nutrition agenda.



- FAO's Food Outlook reports on global food prices and includes special features on how COVID-19
 has impacted demand and prices of some nutritious foods. The report also identifies the most recent
 (May-October) food policy responses by governments to address the impact of the pandemic on
 households and agricultural production.
- The <u>call for action to implement large scale food fortification</u> (October 2020) reviews the impact of the pandemic on access to nutritious food and the implementation of large-scale fortification programmes. The brief suggests that tackling vitamin and mineral deficiencies, through fortification and other interventions, might strengthen community health and resilience to disease, and should be prioritised as part of global and national responses to COVID-19.
- The **African** Leaders for Nutrition Initiative issue a <u>position paper</u> on embedding nutrition within the COVID-19 response and recovery.
- The World Health Organisation (WHO)/PATH COVID-19 <u>Essential Health Services Policy Tracker</u> documents LMICs adopting nutrition-related guidelines and policies in the context of COVID-19.
- The Global Panel on Food Security held a <u>High-Level Special Event</u> on Global Governance of Food Security and Nutrition from 13-15 October, including a panel on Impacts of COVID-19 on food security and nutrition: developing effective policy responses to address the hunger and malnutrition pandemic, drawing on a recent <u>issue paper</u> on the topic.
- UNICEF and the Lancet initiated the <u>Global Development Commons (GDC)</u>, a digital platform to support child-focused SDGs. Organisations and researchers can share tools, resources, case studies and research, with a focus on ideas to respond to the COVID-19 pandemic.
- <u>Tracking the Situation of Children During COVID-19</u> includes examples of countries having implemented adaptations to programme to ensure sustaining the management of acute malnutrition.
- A Lancet editorial ("COVID-19: a new lens for non-communicable diseases" 5 September 2020) highlights the interaction between non-communicable diseases (NCDs) and COVID-19.
- UNICEF has <u>updated the child MUAC tape design</u> to make it easier for caregivers to use, given the need to safely screen for wasting during COVID-19. They note the physical distancing requirements that will need to be followed in training parents on its use.
- USAID released <u>findings, conclusions and recommendations</u> from the advisory Board for International Food and Agriculture Development (BIFAD) meeting, to support stakeholder decision making to advance food security and nutrition at global, regional and national levels, given the context.
- Action Against Hunger and partners have launched (on acute malnutrition.org) a tracker documenting non-governmental organisations', UN agencies' and governments' <u>COVID-19</u> Adaptations in the Management of Acute Malnutrition.
- The United Nations Office for the Coordination of Humanitarian Affairs (OCHA) and partners updated the <u>Global Humanitarian Response Plan COVID-19</u> (31 August 2020) with increased scope and targets across 63 countries and covering country-specific food security responses.
- UNICEF and the WHO have published Prevention, Early Detection and Treatment of Wasting in Children 0–59 Months through National Health Systems in the Context of COVID-19 Implementation Guidance, for implementing the recommendations reflected in existing guidance, with a range of context-specific examples.
- UNICEF and Nutrition Cluster partners have published various guidance pieces:
 - <u>Toolkit for Community Health Workers on Community-Based Treatment of Uncomplicated</u> <u>Wasting for Children 6-59 Months in the Context of COVID-19</u> to provide key considerations for rolling out the approach as well as step by step guidance on an implementation protocol.
 - Summary of the Main Evidence and Operational Considerations for the Family MUAC Approach, responding to questions from a recent webinar.
 - Briefs on Nutrition Information Management, Surveillance and Monitoring in the Context of COVID-19.
- The UN OCHA has launched on <u>humanitariannresponse.info</u> an online survey gathering field examples of <u>Nutrition Innovations and Adaptations in the Context of COVID-19</u>.
- Several regularly updated tools are tracking policy responses. These include the <u>WHO/PATH</u> <u>COVID-19 Policy Tracker Dashboard</u>, the FAO's Food And Agriculture Policy Decision Analysis <u>Tool</u>, the Oxford Government Response Tracker (OxCGRT) and the World Bank and International <u>Labour Organisation Social Protection and Jobs Responses to COVID-19</u> Real-Time Review. A range of nutrition-relevant policy responses are emerging (non-linked countries are from the WHO/PATH Tracker, which is in beta testing):



- Notable policy responses from multilateral institutions include the World Bank, which <u>approved</u> a US\$14 billion COVID-19 response package. Announcing they would open in July a US\$2.5 billion emergency funding window, of which US\$500 million would be allocated for food security and nutrition crises.
- In a policy brief on The Impact of COVID-19 on Food Security and Nutrition, the United Nations have described the COVID-19 pandemic as a health and humanitarian crisis threatening the food security and nutrition of millions of people.
- Nutrition, economics, food and health system experts have formed <u>Standing Together for Nutrition</u> to address COVID-related nutrition challenges. Its <u>Call to Action</u> to build evidence to inform nutrition responses has over 500 signatories (governments, civil society, UN agencies and the private sector).

3.2 Most recent sources

Title: Mobilising evidence, data, and resources to achieve global maternal and child undernutrition targets and the Sustainable Development Goals: an agenda for action

Author or institution	Heidkamp et al.
Geographic focus	Global
Population focus	All
Technical focus	Global Policy and Related Responses
Information type	Journal article (peer reviewed)
Date published	March 2021
Date added	April 2021

Purpose/objective of source

To highlight how the evidence base for nutrition, health, food systems, social protection, and water, sanitation, and hygiene interventions has evolved since the 2013 Lancet Series on maternal and child nutrition, and identify priority actions needed to regain and accelerate progress within the next decade.

Main nutrition-related findings

- The COVID-19 pandemic poses a serious challenge to achieving the SDGs and to plans in the UN Decade of Action in Nutrition, necessitating action to address the unfinished undernutrition agenda. Evidence shows that multisector strategies, focused on the first 1,000 days of life, can effectively reduce undernutrition. They should be sufficiently resourced to allow implementation at scale.
- There is potential for targeted policies to address multiple forms of malnutrition.
 For instance, policies can limit market promotion of unhealthy foods and breastmilk substitutes, and support local producers of nutritious foods to mitigate economic effects related to the COVID-19 pandemic on low-income households.
- Food fortification of staple foods and condiments is recommended, a practice already embedded within the food systems of many LMICs. Large scale food fortification is highly cost-effective, yielding an estimated US\$27 in economic return per US\$1 spent.
- Rigorous case studies were conducted in several countries to understand what drives reductions
 in stunting. Case studies find that health care, household wealth and parental education are
 important predictors of stunting declines in most countries. Results vary with context, as in
 Ethiopia, agricultural investments improved household food security, whereas in Tanzania and
 Zambia, insecticide treated bed net expansion significantly reduced stunting. In South Asia,
 reductions in open defecation was found to be significant in reducing stunting.
- To better address issues of nutrition, collection of disaggregated data must be prioritised. Common nutrition data gaps in LMICs highlighted include reach, coverage, quality, and cost of health sector nutrition interventions; reach, coverage, quality, and cost of nutrition interventions in



other sectors (especially social protection, agriculture, and education); diet quality; household food insecurity; and budget and expenditure tracking.

- Multisector nutrition strategies need to be monitored through well-timed surveys and more
 continuous disaggregated administrative data. In many LMICs, national surveys are carried out
 after many years, which is useful for tracking trends in outcomes but provides insufficient data on
 intervention coverage and quality at a national and sub-national level. The COVID-19 pandemic
 has highlighted the need for administrative data systems and increased demand for remote data
 collection.
- With regards to investment in nutrition, in 2017 the first ever global Investment Framework for Nutrition (IFN) estimated the cost and financing needs relating to four of the WHA nutrition targets: stunting, anaemia in women of reproductive age, exclusive breastfeeding, and scale-up of severe acute malnutrition (SAM) treatment towards the wasting target. According to the IFN, on average an additional US\$7 billion investment per year over a period of 10 years is needed to achieve the intended targets. Of this investment, 65% is for health sector investments, 31% for food supplements for vulnerable children, and 4% for staple food fortification.

Quality of the data / evidence (method)

• This paper is part of the Lancet series of papers on Maternal and Child Undernutrition Progress. It builds upon findings from the previous 2008 and 2013 Series, which established an evidencebased global agenda for tackling undernutrition over the past decade. Evidence is obtained from previously highlighted interventions in the series.

Author or institution	Strachan
Geographic focus	N/A
Population focus	N/A
Technical focus	Global Policy and Related Responses
Information type	Article
Date published	January 2021
Date added	April 2021

Title: The impact of Covid-19 on research methods and approaches

Purpose/objective of source

To explore how COVID-19 has impacted general research methods.

Relevant data related to research

• The COVID-19 pandemic and related measures that are set in place to contain the spread of the virus have impacted approaches to carrying out research. Much research has switched to remote data collection during the pandemic.

Challenges of remote data collection:

- Accessibility researchers can only access those with mobile phones/internet access, thereby excluding the most vulnerable populations.
- Provision of incentives difficulties in the transfer of incentives to respondents as not everyone has access to, for instance, a mobile phone for mobile money transfers.
- Informed consent difficulties to get respondents to consent remotely.
- Ethical considerations remotely-based researchers are not able to know the circumstances of the respondent in terms of security or privacy, which can put the respondent at risk. For instance, keeping women on the phone for a long time can put them at risk of domestic violence.

Options for remote data collection:



- Text messaging surveys surveys are sent one message at a time. Best suited for short surveys only.
- Computer-assisted telephone interviews (CATI) trained interviewers conduct live calls.
- Interactive voice response pre-recorded voice system asks questions.
- Multimodal platforms support different question types.

Opportunities in remote data collection:

- Empowering researchers in the Global South the pandemic has shifted the leadership of research activities to local researchers.
- Shift in power dynamics among respondents remote discussions have allowed those less likely to actively participate in in-person discussions to be more vocal.
- Closing the digital divide online interactions are forcing countries to increase their internet coverage to areas otherwise neglected.
- Climate friendly reduced travel reduces the carbon footprint of surveys and data collection.

Quality of the data / evidence (method)

• The article is based on desk-based research. The paper references blogs, especially from development practitioners or research institutions, and papers on COVID-19-related research.

3.3 Sources collected in previous months by TASC

Title: Responding to a stark rise in fo	od insecurity across th	e poorest countries

Author or institution	Townsend and Gautam; World Bank
Geographic focus	LMICs (54 countries)
Technical focus	Policy response; Access to nutritious food
Information type	Blog post
Date published	February 2021
Date added	March 2021

Purpose/objective of source

To explain how the impacts of the COVID-19 pandemic have increased food insecurity in the poorest and most vulnerable countries served by the World Bank's International Development Association (IDA), and the support provided to these countries in response.

Main nutrition-related findings

- The COVID-19 pandemic has impacted food security of the poorest and most vulnerable countries. Earlier World Bank projections (based on the application of the findings from a <u>stochastic model to predict food insecurity in November 2020</u>) suggest that the number of acutely food insecure people could increase to about 330 million in 2021 (<u>Wang, 2020</u>).
- The sharp rise in acute food insecurity is likely to roll back much of the progress over the last few decades on women and children's nutrition. Increased numbers of stunted children will compromise their future human capital and economic productivity.
- "Unlike the 2008 food crisis, which was driven by disruptions in global markets, the current crisis is driven by disruptions in local job and product markets. Massive income and remittance losses have reduced both urban and rural households' ability to purchase food. In addition, supply disruptions to local markets have reduced food availability and increased local food prices. Import-dependent economies face additional difficulties as currency depreciations have increased the cost of food and other essential imports". (This is very much in line with the earlier IDA publication referred at the end of this blog as "Responding to the Emerging Food Security Crisis" from November 2020.)



 As a response, IDA provided US\$5.3 billion in new commitments to improving food security through the six months to the end of September 2020. About half of this response was to meet immediate food security needs, and half to address the longer-term drivers of food insecurity. Responses to meet immediate food needs included financing for scaling up safety net programs; keeping food moving; distributing and improving access to food; protecting jobs and livelihoods; supporting agribusinesses and small-scale entrepreneurs (and next season food production); and mitigating the impacts and spread of locusts to reduce compounding effects on households. Addressing long term drivers of food insecurity included agriculture-related and social protection support; focusing on improving climate resilience; reducing the risk of conflict; addressing zoonotic disease risk; and expanding economic opportunities.

Methodology

This blog includes reference to an earlier IDA publication, <u>Responding to the Emerging Food</u> <u>Security Crisis</u> (November 2020), and <u>the website of the World Bank Group's Response to the</u> <u>COVID-19 (coronavirus) Pandemic.</u>

Title: <u>Global Humanitarian Response Plan COVID-19 Progress Report: Final Progress</u> <u>Report</u>

Author or institution	United Nations Office for the Coordination of Humanitarian Affairs (OCHA)
Geographic focus	LMICs (63 countries)
Technical focus	Policy response; Interventions
Information type	Final progress report
Date published	February 2021
Date added	March 2021

Purpose/objective of source

To describe the progress of the United Nations Global Humanitarian Response Plan (GHRP), originally put in place to address the immediate humanitarian consequences of the COVID-19 pandemic.

Main nutrition-related findings

- On March 25 2020, the United Nations launched the Global Humanitarian Response Plan (GHRP) for COVID-19 to address the immediate humanitarian consequences of the pandemic, coordinated by OCHA.
- The below findings represent the cumulative progress for the duration of the GHRP (March-December 2020). It covers monitoring indicators in 63 GHRP countries, based on data provided by the UN agencies and collected by OCHA.
- Nutrition related activities supported by the GHRP include
 - the organisation of nutrition coordination mechanisms in response to COVID-19 and its impacts
 - the provision of services for acute malnutrition
 - child and gender protection services
 - Activities which ensure the continuity of and safety from COVID-19 infection of essential services including health, water and sanitation, nutrition, shelter, protection, and education for the population groups most exposed and vulnerable to the pandemic.

The report provides a detailed list of issues and needs. The following is a selection:

 According to UNFPA, institutional births in COVID-19 affected areas have seen a decline in 31 of 38 GHRP countries.



- According to WFP, globally, 268,435,711 people had an unacceptable food consumption score and 268,008,340 people adopted crisis level coping strategies (Reduced Coping Strategy Index).
- According to UNICEF, 29 countries have activated a Nutrition Coordination Mechanism in response to COVID-19 and/or its impacts.

The report also assesses the number of people who received selected health services. The results vary by reporting agency. Progress on a selection of reported indicators by the relevant GHRP partners (target versus achievements) is described under Table 6.

Table 8. Number of people who have received selected services under the GHRP compared to the targets sets (by responsible organisation)

	Responsible agency	Targe t	Achievements March- December 2020
Number of people (girls, boys, women, men) who	IOM	6,418, 315	3,618,675
are receiving essential healthcare services	UNHCR	6 million	9.38 million (37 countries reporting)
under the GHRP (compared to targets)	UNICEF	50,280 ,946	56,845,664
	UNRWA	-	UNRWA – 5.8 million in-person patient visits (not including telemedicine consultation
Number of children 6-59 months admitted for treatment of severe acute malnutrition (SAM) compared to targets planned and set by GHRP	UNICEF	7,280, 186	2,995,085
	UNHCR	55,000	52,656 in 23 countries
Number of children 6-59 months admitted for treatment of moderate acute malnutrition (MAM) compared to targets planned and set by GHRP	UNHCR	140,00 0	132,219 in 23 countries
	SCF	-	391,455 children (51% female)
Source: Global Humanitarian Response Plan COVID-19 Progress Report: Final Progress Report, 2021			

Gender Equity and Social Inclusion

• UNFPA reported that, as of December 2020, 7 out of 55 countries implementing the GHRP have experienced disruptions in their gender-based violence services.

Quality of the data / evidence (method)

All of the reported data represent cumulative progress for the duration of the GHRP (March-December 2020), based on the monitoring data provided by the member organisations. Most information relates to the 63 GHRP countries, unless stated differently.

Title: Policy Responses to COVID-19

Author or institution	International Monetary Fund (IMF)
Geographic focus	Global (197 countries)
Population focus	All
Technical focus	Policy
Information type	Policy Tracker
Date published	February 2021



Date added March 2021

Purpose/objective of source

To summarise the key economic responses taken by governments to limit the human and economic impact of the COVID-19 pandemic in a tracker, including 197 economies.

Main nutrition-related findings

In response to the pandemic, countries have implemented numerous measures:

- Some have announced packages to boost healthcare spending and/or health systems in 2020 and 2021. Including but not limited to: Afghanistan, Albania, Central African Republic, Ethiopia, Gabon, The Gambia, Haiti, Liberia, Madagascar, Myanmar and Nepal.
- Countries such as Bangladesh, Mali and Rwanda are supporting agriculture subsidy programmes. Others have implemented polices supporting cash and/or food transfer programmes to vulnerable households, including but not limited to: Afghanistan, Bolivia, Burkina Faso, Cambodia, Cameroon, the Dominican Republic, Ecuador, El Salvador, India, Indonesia, Jordan, Liberia, Malawi, Nepal, Nicaragua, Nigeria and Pakistan.
- To reduce costs of food, essential medicines, and hygiene items, some countries including Comoros and El Salvador have reduced import taxes, while others such as Ecuador implemented price controls on basic food items. To increase local food availability and to support the agriculture sector, countries such as the Democratic Republic of Congo, Myanmar, Nepal and Pakistan implemented financial measures (such as provision and/or expansion of credit) to improve and/or maintain food production.
- Some countries, such as Senegal, implement more holistic approaches. Their "economic and resilience package" consists of four main pillars: (i) improving the health system; (ii) strengthening social protection; (iii) stabilising the economy and the financial system to support the private sector and employment; and (iv) securing supplies and distribution for key foodstuffs, medicine and energy products.

Quality of the data / evidence (method)

 The tracker focuses on discretionary actions and might not fully reflect the policies taken by countries in response to COVID-19. For example, existing social safety nets which differ across countries in their breadth and scope. The IMF states that information included is not meant for comparison across member countries, as responses vary depending on the nature of the shock and country-specific circumstances. The tracker includes information that is publicly available or provided by the authorities to country teams and does not represent views of the IMF on the measures listed.

Author or institution	FAO, UNICEF, WFP and WHO
Geographic focus	Asia and Pacific region
Population focus	Children under 5, women and mothers
Technical focus	Policy, Availability and Price of Nutritious Food
Information type	Report
Date published	January 2021
Date added	February 2021

Title: Asia and the Pacific Regional Overview of Food Security and Nutrition 2020

Purpose/objective of source

To track progress on key SDG 2 indicators and World Health Assembly targets up to 2019, including what is known to date on the impact of COVID-19; to identify challenges and possible solutions to improve maternal and child diets in the Asia and Pacific region.

Main nutrition-related findings

Citing data from previously published papers and reports, this source touches on equity in the light of COVID-19, estimated impacts of COVID-19 on food security and nutrition, and exclusive breastfeeding practices during the COVID-19 pandemic. The most relevant points for the purposes of this tracker are as follows:



- The report calls on governments in the region to better prepare for and build resilience to future disasters and pandemics by investing in stronger disaster preparedness, early warning and response systems. The report also calls for greater investment in primary data collection especially for the measurement of the impact of COVID-19 on food security and nutrition.
- The report affirms that there is no known evidence of vertical transmission of the virus through breastmilk and states that maintaining exclusive breastfeeding remains important during the COVID-19 pandemic for both mothers and infants.
- The report highlights previously published examples where social protection interventions have played an important role in meeting the needs of vulnerable populations and mitigating the damage caused by COVID-19.

GESI observations

 The report reiterates the importance of the inclusion and protection of the most vulnerable populations in responses to COVID-19, as the virus disproportionally affects those experiencing poor health and malnutrition, the poor, women and children, the chronically sick and old, those living in fragile or conflict-affected states, minorities, refugees and the unsheltered.

Quality of the data / evidence (method)

• Review and synthesis of existing data collected at country level by various sources including MICS, DHS, and numerous others, identified by the agencies involved in the report-writing.

Title: Weekly Briefing for the SUN movement

Author or institution	SUN Movement
Geographic focus	Global
Population focus	All
Technical focus	Policy
Information type	Brief
Date published	December 2020
Date added	January 2021

Purpose/objective of source

The briefing presents figures on COVID-19 cases around the world, identifies problems related to COVID-19 and nutrition (previous and recent reports); explains why and how a comprehensive, multisectoral approach to nutrition should be integrated into COVID-19 response and recovery effort, and recommendations on "what must be done" to stakeholder groups within the SUN Movement.

Main nutrition-related findings

Selected recommendations for stakeholder groups in the SUN movement

- SUN Governments: Ensure nutrition is prioritised in COVID-19 response and recovery plans; continue implementing a multisectoral, multi-stakeholder approach to nutrition and investing and implementing interventions to prevent and treat malnutrition across health, food, and social protection; an additional US\$ 19 billion/year from LMICs' own budgets should be provided for food security and nutrition to accompany development cooperation.
- Bilateral & multilateral donors & philanthropies: scale up funding an additional US\$ 14 billion is needed from donor governments to stop millions more people from going hungry; support innovation, research, and development that can strengthen the nutrition response to COVID-19; provide technical assistance to LMICs based on country need.
- The UN: Ensure that key UN actors coordinating the COVID-19 response at national level liaise with nutrition actors; deliver clear, actionable operational guidance for frontline workers and policymakers;



share emerging evidence regarding COVID-19 and nutrition; document and share country experiences to promote learning across borders.

- Civil Society: Maintain or adapt nutrition programming in line with ongoing guidance; utilise operational capacity to support implementation efforts amidst the COVID-19 response across sectors, in coordination with government and partners; continue commitment to a multisectoral, multistakeholder approach to nutrition at country level, aligning programmes and advocacy efforts.
- Business and private sector: Contribute to the production and delivery of nutritious foods and food
 products, focusing on the most vulnerable; avoid donating, marketing and promoting unhealthy foods;
 adhere to the International Code of Marketing of Breast-milk Substitutes and subsequent WHA
 resolutions; advocate for and support SME sin a broader food systems' response; adopt and deliver
 workforce nutrition programmes for all employees.

GESI observations

- In post-COVID recovery and emergency preparedness, the brief states that vulnerability factors such as poverty, inequality (also gender-based), pre-existent malnutrition, infectious diseases such as HIV/AIDS, non-communicable diseases such as diabetes, crowded living conditions, poor access to healthcare and clean water and sanitation must be considered and addressed.
- Citing a report from Care from August 2020, the brief also states that national and global responses aiming to prevent a hunger crisis need to critically look at the role and status of women and girls in food systems and nutrition actions, as responses to COVID-19 and related hunger crises are either ignoring women and girls or treating them as victims who have no role in addressing the problems they face.

Quality of the data / evidence (method)

Review of SUN country responses and summaries of new and older research, models and estimations, and reports on COVID-19 and nutrition.

Author or institution	Save the Children
Geographic focus	Global
Population focus	Children under age 5
Technical focus	Policy and general child malnutrition
Information type	Report Data
Date published	December 2020
Date added	January 2021

Title: Nutrition Critical, Why We Must Act Now to Tackle Child Malnutrition Now

Purpose/objective of source

The report reviews child malnutrition in the world today, including the impact of Covid-19, and proposes a set of recommendations to accelerate progress on nutrition.

Main nutrition-related findings

The document brings together as set of existing research and estimations, and presents a series of recommendations

- 1. Ensure no child is left behind from progress to end malnutrition for all and include children in the decisions that impact them, including health and nutrition.
- 2. Urgently address the malnutrition crisis in fragile and conflict-affected settings;
- 3. Strengthen essential health and nutrition services (especially as health system resources are being diverted from a range of nutritionally important functions and essential health services that affect nutrition towards combating COVID-19);



- 4. Protect, promote and support infant and young child feeding particularly breastfeeding and care for children and their caregivers;
- 5. Protect and support food security and livelihoods and access to nutritious foods.
- 6. Commit to nutrition financing by making long term and flexible commitments to address malnutrition.

The report also recommends to:

- Address the Youth Agenda for Action (The Youth Agenda for Action was generated by the SUN Civil Society Network's Youth Leaders for Nutrition).
- Preserve and scale up critical food, nutrition, health, water, sanitation, hygiene and livelihood assistance.
- Prioritise humanitarian cash and voucher support for families in order to increase their household income.

GESI observations

- In recommendations ensuring no child is left behind, the report states that
 - interventions should prioritise actions to enhance gender equality;
 - data should be disaggregated by age-group, sex and disability to enable intersectional gender analysis and to inform gender-, age- and disability-sensitive responses for more effective programming.
- In recommendations ensuring essential health and nutrition services are accessible to all, barriers to access, including those related to gender, should be addressed.

Quality of the data / evidence (method)

The report reviews new data, estimations and models from the Standing Together for Nutrition consortium, country case studies, and existing data from the Lancet and other external sources.

Title: UN Research Roadmap for the COVID-19 Recovery. Leveraging the Power of Science for a More Equitable, Resilient and Sustainable Future

Author or institution	United Nations
Geographic focus	Global
Population focus	All
Technical focus	Policy (research agenda)
Information type	Research roadmap
Date published	November 2020
Date added	December 2020

Purpose/objective of source

- To "provide a framework for leveraging the power of science in support of a better socioeconomic recovery and a more equitable, resilient and sustainable future".
- To "better equip researchers, research funding agencies, governments, UN entities and other international institutions to harness collective knowledge and innovation in order to catalyse transformative changes and achieve the SDGs".

Main nutrition-related findings

- This roadmap covers a wide range of research agendas which will complement the UN's Framework for the Immediate Socioeconomic Response to COVID-19 (April 2020). It was developed through concertation with researchers, research funders, government policymakers, civil society leaders and UN officials around the world.
- The document first spells out recommended the policy priorities for governments related to health services, social protection/basic services, economic recovery and macro-economic collaboration.



Many of these policy recommendations are nutrition-sensitive (pages 15-16). Nutrition was specifically highlighted under the social protection/basic services agenda, notably "maintain essential food and nutrition services, particularly for infants and young children, women, and other marginalized populations, including those living with HIV/AIDS".

- Subsequently, the document identifies key research priorities to inform the socioeconomic recovery
 from the current pandemic and accelerate progress towards the SDGs. In total, 25 research priorities
 are identified, organised within five pillars and linked by their focus on addressing the
 interdependence of people, systems and generations and advancing a framework for achieving
 equity, resilience and sustainability co-benefits through COVID-19 recovery efforts. Each research
 priority includes a set of more detailed research questions, organised by those who can generate
 quick-wins, best-buys and game-changers.
- Many of these research priorities and questions relate to nutrition, directly or indirectly (see document page 22 onwards). Nutrition was specifically cited in the document as part of a "game-changer" research question to support the economic response and recovery programme, notably "How can food supply chains be secured for the world's most marginalized populations to ensure food security and nutrition in all circumstances?" (Page 50).

Author or institution	FAO
Geographic focus	Global
Population focus	All
Technical focus	Policy responses; Access and price to nutritious food
Information type	Report
Date published	November 2020
Date added	December 2020

Title: Food outlook. Biannual Report on Global Food Markets

Purpose/objective of source

To provide an update on the global food markets.

Main nutrition-related findings

 This document provides period updates on global food markets, relevant policy developments and market indicators. Information is provided for various food groups, including nutritious food such as diary, meat and fish. This edition also includes a special feature on how food imports and export have been challenged by COVID-19 pandemic and includes an assessment on the impacts of the pandemic on the trade in bananas and tropical fruits.

Findings on food demand and prices are not specific to LMICs, but some relevant key findings are reported hereafter

- Globally, meat demand and meat prices have fallen this year due to COVID-19-related market disruptions. This trend is likely to persist. Milk demand dropped earlier in the year caused by logistical bottlenecks, reduced food sales and market uncertainty. Global milk prices had dropped earlier in the year but have recently recovered. World supply and demand for bananas and tropical fruits have experienced COVID-19-related disruptions through several channels of transmission. By October however, a comparatively positive global trade situation was observed for bananas and avocados, but the overall decline in global import demand for most major tropical fruits in response to COVID-19 remained.
- "Given that the negative economic repercussions of the pandemic's mitigation measures are likely to
 worsen as the virus continues to spread, consumers' ability to afford healthy diets will probably be
 affected in both producing and importing countries, contingent on people's access to savings, credit
 and safety net programme. LMICs which may lack the capacity and funds to implement effective
 social protection programme and economic stimuli, are especially at risk, alongside net food importing
 countries."



The document also reports on the most recent (May-October) food policy responses by governments as a response to the pandemic. Some examples:

- India extended until end-November 2020 the national scheme providing 5 kg of food grains free of charge to 800 million individuals. The programme had initially been launched in April in response to COVID-19.
- Indonesia implemented a wide range of measures (see country profiles) to facilitate and increase exports of processed food products and launched the Rice Social Assistance programme to help vulnerable consumers during the COVID-19 pandemic.
- In Nigeria, a support programme to farmers affected by the COVID-19 pandemic was implemented (see country profile).

Title: COVID-19 is making it harder for vulnerable people to access healthy food Strengthening large scale food fortification should be part of the response

Author or institution	Food Fortification initiative, Global Alliance for Improved Nutrition, AIN, Helen Keller, Iodine Global Network, Nutrition International, Scaling up Nutrition, UNICEF, World Food Program
Geographic focus	Global
Population focus	All
Technical focus	Diets, Interventions and Policy
Information type	Advocacy brief
Date published	October 2020
Date added	December 2020

Purpose/objective of source

This brief makes the case for large scale staple food fortification as a critically important tool to fight malnutrition in general, and even more so during the global COVID-19 pandemic.

Main nutrition-related findings

- The brief brings together existing evidence on how strategies to mitigate the spread of the virus might
 affect acute food insecurity worldwide and drive up multiple forms of malnutrition, limit access to food
 and basic supplies, reduce accessibility and consumption of fresh produce and animal-source foods
 and affect fortification programme s in LMICs.
- The brief calls for action and asserts that tackling vitamin and mineral deficiencies, through fortification and other interventions, strengthens community health and resilience to disease and should be prioritized as part of global and national responses to COVID-19.

Data/method

• This is an advocacy brief which uses existing evidence to underline statements

Link to relevant webinar

• <u>https://nutritionconnect.org/webinar-fortification-covid19</u>

3.4 Sources collected under MQSUN+

African Leaders for Nutrition (ALN) Initiative Embedding Nutrition within the Covid-19 Response and Recovery - COVID-19 Position Paper

Author or institution: African Leaders for Nutrition (ALN)

Geographic focus: Africa



Technical focus:	Diet, Food price and availability
Information type:	Informal
Date published:	September 2020
Date added:	14 October 2020

The African Leaders for Nutrition (ALN) Initiative issued a <u>position paper</u> on embedding nutrition within the COVID-19 response and recovery. The call to action urges high-level political leadership and governments to prioritise nutrition in national COVID-19 response plan and strategies. The African Union Commission has launched the African Union COVID-19 Response Fund, and the African Development Bank has put in place a US\$10 billion COVID-19 response facility.

COVID-19 Discussion Papers: Strengthening Food Systems' Resilience to COVID-19 Initial Lessons from FOLU Countries' Responses to the Global Pandemic

Author or institution:	Food and Land Use (FOLU) Coalition
Geographic focus:	Updates focus countries: Ethiopia, India, Indonesia
Technical focus:	Diet, Food price and availability
Information type:	Informal
Date published:	13 July 2020
Date added:	14 October 2020

The Food and Land Use (FOLU) Coalition assessed the food systems, economics, and vulnerabilities to COVID-19 in five FOLU countries (China, Colombia, Ethiopia, India, and Indonesia). The focus of the analysis was on the ability to ensure availability and access to food and to support adequate livelihoods, positive nutritional outcomes, and natural resource resilience. Additionally, it reviews policy responses put in place in these countries. Authors point to how emphasis was placed on food availability and sustaining incomes, and far less weight has been on supporting nutrition outcomes of vulnerable groups or ensuring access to nutritious food, such as fruits and vegetables. Making urban markets safe has also received less attention as it is not easy to do. Supporting stronger and more local supply chains, particularly for nutritious fruit, vegetables and proteins, was highlighted as a key intervention to strengthen food systems.

Findings, Conclusions and Recommendations of the 181st Public Meeting of the Board for International Food and Agricultural Development, regarding Food Security and Nutrition in the Context of COVID-19: Impacts and interventions

Author or institution:	Board for International Food and Agriculture Development (BIFAD)
Geographic focus:	Global
Technical focus:	Nutrition intervention delivery
Information type:	Policy
Date published:	September 2020
Date added:	23 September 2020

Recommendations from the BIFAD advisory board to USAID, regarding best-bet operational and programmatic investments, to support decision making by stakeholders working to advance food security and nutrition at global, regional, and national level. Recommendations include bolstering economic recovery programming, supporting nutrition, supporting social safety nets- food assistance, supporting markets and supply chains, and supporting long-term and institutional arrangements.



COVID-19: A New Lens for Non-Communicable Diseases

Author or institution:	The Lancet
Geographic focus:	Global & Regional
Technical focus:	Nutritional status, Nutrition intervention delivery
Information type:	Peer-reviewed journal
Date published:	5 September 2020
Date added:	23 September 2020

A Lancet editorial ("COVID-19: a new lens for non-communicable diseases" 5 September 2020) highlights the interaction between non-communicable diseases (NCDs) and COVID-19, in which lockdowns exacerbated an obesogenic environment, in which access to nutritious food and physical activity was made more difficult and in which those with <u>underlying NCDs are at increased risk of severe</u> <u>COVID-19</u>. It calls for this COVID-19 impact on NCDs to serve as a catalyst to increase investment on stricter sugar and alcohol controls and improve physical activity and healthy diets.

Prevention, Early Detection and Treatment of Wasting in Children 0–59 Months through National Health Systems in the Context of COVID-19: Implementation Guidance

Author or institution:	UNICEF & WHO
Geographic focus:	Global
Technical focus:	Nutrition intervention delivery
Information type:	Policy
Date published:	August 2020
Date added:	08 September 2020

This guideline published by UNICEF & WHO is a tool for implementing the recommendations reflected in existing WHO and UNICEF guidance on the delivery of services through national health systems for the prevention, early detection and treatment of child wasting in the context of COVID-19. The note:

- Reflects broad guidance for all levels of the health system, including community health services that
 offer prevention, early detection and treatment services for child wasting. Temporary programmatic
 adaptations are largely around adherence of infection prevention and control measures throughout
 programming, strengthening systems to support the delivery of services through various avenues
 (coordination/governance, financing, health workforce, supply of essential medicines and
 commodities, health information systems).
- Offers context-specific examples of programmatic changes or adaptations that may be temporarily introduced to ensure the continuity and safety of prevention and treatment services.

Maintaining Essential Health Services: Operational Guidance for the COVID-19 Context

Author or institution:	WHO
Geographic focus:	Global
Technical focus:	Nutrition intervention delivery
Information type:	Policy
Date published:	June 2020



Date added: 25 August 2020

This guideline published by WHO recommends practical actions for countries to take to maintain access to high-quality, essential health services in the pandemic context. Highlights include:

- Provides recommended modifications for safe delivery of nutrition services.
- Includes nutrition indicators to track essential services, e.g. number of children 0-59 months of age who were screened for severe wasting and bilateral pitting oedema. These indicators are used in the WHO/PATH COVID-19 Essential Health Service Policy Tracker.
- The COVID-19 pandemic will impact the nutritional well-being of vulnerable populations through multiple mechanisms. Dietary quality and quantity are expected to fall due to the loss of household income and disruptions in food systems (e.g. disruption of trade and transport of foods from production to markets) and school feeding programmes. Programmes delivering important nutrition components, such as antenatal care (ANC) and postnatal care (PNC), counselling for infant and young child feeding, micronutrient supplements and early detection and treatment of wasting) will be threatened, along with the surveillance of at-risk populations used to identify communities or individuals in need of nutritional support.

WHO Clinical Management of COVID-19 (Policy)

Author or institution:	WHO
Geographic focus:	Global
Technical focus:	Breastfeeding
Information type:	Policy
Date published:	27 May 2020
Date added:	25 August 2020
_	

The WHO issued this interim guidance on the clinical management of COVID-19 which includes feeding and caring for infants and young children of mothers with COVID-19. It recommends that mothers with suspected or confirmed COVID-19 should be encouraged to initiate and continue breastfeeding.



Annex 1: Key Resources and Repositories for Periodic Consultation

Information contained in this annex includes guidance and tools related to COVID-19 and nutrition interventions and programming and key nutrition information and knowledge hubs used for monthly consultation.

Table 1. 1. Guidance and Tools in the Context of COVID-19

Nan	ne	Description
1	Interim Guidance on Household Surveys during COVID-19	Provides guidance on resuming household data collection (rather than continuing to rely only on alternative methods).
2	Overweight and Obesity in the Context of COVID- 19	The overweight and obesity in the context of COVID-19 technical note and guidance aims to support WFP's work in the area of promoting healthy and nutritious diets and preventing all forms of malnutrition.
3	USAID guidance on SBC for nutrition during COVID-19	The guide includes considerations, messaging, and resources to support country programmes in adapting nutrition SBC programming in response to the challenges presented by COVID-19.
4	Prevention, Early Detection and Treatment of Wasting in Children 0– 59 Months through National Health Systems in the Context of COVID- 19 Implementation Guidance	This document serves as a tool for implementing the recommendations reflected in existing WHO and UNICEF guidance on the delivery of services through national health systems for the prevention, early detection and treatment of child wasting in the context of COVID-19. This note reflects broad guidance for all levels of the health system, including community health services that offer prevention, early detection and treatment services for child wasting.
5	Toolkit for Community Health Workers on Community-Based Treatment of Uncomplicated Wasting for Children 6-59 Months in the Context of COVID- 19	The Toolkit for CHW Community-Based Treatment of Uncomplicated Wasting for Children 6-59 Months in the Context of Covid-19 brings together existing evidence and operational experience to provide implementers key recommendations and considerations for rolling out the approach as well as step by step guidance on an implementation protocol. Adaptations to the Family MUAC approach, the simplified treatment protocol and existing CHW delivery platforms are described alongside links to additional and emerging resources and best practices in the context of COVID-19.
6	Maintaining Essential Health Services: Operational Guidance for the COVID-19 Context	This guideline published by WHO recommends practical actions for countries to take to maintain access to high-quality, essential health services in the pandemic context.
7	WHO Clinical Management of COVID- 19	The WHO issued this interim guidance on the clinical management of COVID-19 which includes feeding and caring for infants and young children of mothers with COVID-19. It recommends that mothers with suspected or confirmed COVID-19 should be encouraged to initiate and continue breastfeeding.
8	Nutrition-Sensitive Guidance in the Context of COVID-19 in Myanmar	These guidelines support the implementation and prioritization of nutrition sensitive interventions in the context of COVID-19. The document highlights key opportunities for leveraging existing nutrition sensitive programme s to mitigate the impacts of COVID-19 and provides guidance as to adaptations which may be relevant to ensure that nutrition sensitive programmes appropriately respond to Government priorities within nutrition sensitive sectors (agriculture, social protection, and education).



Table 1. 2. Situation Updates and Live Trackers

Nam	е	Description
1	World Food Programme (WFP) COVID-19 Situation Updates	Updates on actions taken by the World Food Programme (WFP) in response to the novel Coronavirus (COVID-19) pandemic, including needs assessments.
2	OCHA COVID-19 Situation Updates	Not COVID-19 specific. However, the updates do contain COVID-19 related information and, in particular, on nutrition programme coverage and impacts of disease control on coverage.
3	WFP VAM COVID-19 Resources	Weekly overview of the food security situation, COVID-19 caseloads, and an indication of how relevant indicators – such as health and market access – are shifting. The data provided through these Snapshots are sourced from WFP's remote monitoring systems and thus only cover countries where these systems are operating.
4	FAO FPMA Bulletin. Global Information and Early Warning System (GIEWS)	The food price monitoring at the global, regional and country level with a focus on developing countries updates monthly. This resource feeds into the monthly price monitoring section.
5	UNICEF Situation tracking for COVID-19 socioeconomic impacts	The dashboard draws on periodic country office reporting against an evolving questionnaire, first initiated on 12 March 2020; Country Office responses rely on varying sources and in some cases best estimates combining multiple sources; figures may not accurately represent the full national response to the COVID-19 pandemic.
6	UNICEF Nutrition COVID-19	Knowledge dissemination tool to share programmatic guidance, position papers, technical notes, and emerging research and evidence being developed by UNICEF and its partners on understanding and responding to the COVID-19 pandemic's impact on maternal and child nutrition.
7	UNICEF COVID-19 situation reports in East Asia & Pacific	Useful in the country by country analysis. These reports mostly focus on UNICEF response but include changes in service use, needs, and related policy responses in countries more generally.
8	IPA Research for Effective COVID-19 Responses (RECOVR)	Innovation Poverty Action (IPA) on the Research for Effective COVID- 19 Responses (RECOVR) have a series of continually updated phone surveys. Round 1 results of phone surveys to examine the effects of COVID-19 on disruptions to healthcare, education and work in selected countries are posted, with plans to update with subsequent rounds.
9	FEWS NET COVID- 19 Briefings (Weekly Video)	A range of COVID-19 related reports. It should be noted FEW NET also incorporate COVID-19 impacts in regular updates on countries and regions.
10	WFP HungerMap Live: Hunger and COVID-19 Weekly Snapshot	This website provides a weekly overview of the food security situation, COVID-19 caseloads and an indication of how relevant indicators – such as health and market access – are shifting. The data provided through these Snapshots are sourced from WFP's remote monitoring systems and thus only cover countries where these systems are operating. The HungerMap Live is a data visualisation with COVID-19 alerts to increasing cases and deterioration of food consumption from one month ago. Indicators include the number of people reporting challenges accessing health services and top five barriers to accessing health services. Limitations: Difficult to identify sample size or representativeness information; long term trends not shown, just current and previous



		week's data, so difficult to interpret values; likely to be biased toward younger, better off and those in urban areas with access to electricity for mobile phone charging.
11	PATH/WHO COVID- 19 Essential Health Services (EHS) Policy Tracker	An interactive display of government guidance related to maintaining and adapting essential health services during the COVID-19 pandemic. The dashboards show which countries have issued policies on essential health services, as well as how those policies change over time. The aim of these dashboards is to facilitate cross-country policy exchange and learning, to improve the overall response to maintaining, adapting, and reinstating essential health services. Policies are searchable by health area and by each programme activity included in WHO's June 1st version of: "Maintaining essential health services: operational guidance for the COVID-19 context".
12	FAO Fapda - Food And Agriculture Policy Decision Analysis Tool	The FAPDA tool provides an electronic repository for food and agriculture policies in over 130 countries. The tool facilitates policy research and analysis by enabling the identification of policy trends, allowing an initial assessment of policy coherence on a country by country basis. Tends to be less relevant to nutrition but on COVID-19 lockdown measures.
13	IFPRI's COVID-19 Policy Response (CPR) Portal: Identifying trends and implications for food systems	The CPR tracks food related policy actions systematically across many different domains, enabling governments, donors, and researchers to compare policy commonalities and differences. The CPR focuses on nine distinct types of policy responses, providing information about cross-government institutional coordination, levels of pandemic foreign aid, and citizen compliance with control measures

Table 1. 3. Search Engines (also includes knowledge hubs with search engines)

Nam	е	Description
1	FEWS NET COVID- 19 Search Page	In the link, search terms "COVID and nutrition" are applied. Documents can be further refined based on the country of interest. Documents tend to be situation updates. Depending on the country, this can be as frequent as monthly updates. Search term "COVID" is applied in the link.
2	IFPRI COVID-19 Document Search Page	In the IFPRI publication and tools search engine, search term "COVID" is applied in the link. A dedicated COVID-19 page on the FEWS NET website provides a list of the most recent COVID-19-specific documents related to food security and price-monitoring. The search function can be used to filter types of reports and the country of interest.
3	IFPRI COVID-19 Blogs Page	IFPRI is curating a special series of blog posts analysing the impacts of the COVID-19 pandemic on national and global food and nutrition security, poverty, and development
4	<u>World Food</u> Programme (WFP) Library	WFP library catalogue with search term "COVID" is applied in the link.
5	Food and Agriculture Organisation (FAO) Library	FAO library catalogue with search term "COVID" is applied in the link.
6	UNICEF Publications Library	UNICEF publications page with the latest reports and publications. Can type in COVID under the search option.


7	UNICEF Innocenti COVID Research Library	A knowledge hub with UNICEF Innocenti's curated library of COVID-19 + Children research. You can also filter by topic (nutrition).
8	Reliefweb Updates Search	Search terms applied: COVID and Nutrition Limitations: Tends to be a duplicate of other resources like FEWS NET and other situation updates.
9	OCHA Humanitarian Response Document Search	Search terms applied: COVID and Nutrition
10	WHO COVID-19 Global Literature on Coronavirus Disease	WHO is gathering the latest international multilingual scientific findings and knowledge on COVID-19. The global literature cited in the WHO COVID-19 database is updated daily (Monday through Friday) from searches of bibliographic databases, hand searching, and the addition of other expert-referred scientific articles. This database represents a comprehensive multilingual source of current literature on the topic. While it may not be exhaustive, new research is added regularly.
11	The Lancet COVID-19 Resource Centre	The resource hub includes all COVID-19 articles published in the Lancet. The email is also subscribed to the Lancet COVID-19 listserv which will have likely covered the latest content but would be good to check.
12	PUBMED LitCOVID	LitCovid is a curated literature hub for tracking up-to-date scientific information about the COVID-19. It provides a central access to relevant articles in PubMed. The articles are updated daily and are further categorized by different research topics and geographic locations for improved access.
13	PLOS COVID-19 pandemic (2019-20)	This Collection of articles highlights all content published across the PLOS journals relating to the COVID-19 pandemic in 2019-20. The topics are further broken down into clinical epidemiology and care, molecular and genetic studies, social care, and others. While information here is quite clinical, this may change over time.
14	Elsevier Novel Coronavirus Information Center	Provides various repositories for COVID-19 articles in Elsevier journals and book chapters. Also, quite clinical, but this may change over time.
15	<u>Field Exchange</u> (<u>ENN)</u>	Field Exchange enables fast track publication of programming experiences of relevance to nutrition in emergencies and high burden contexts. The journal includes both original and summaries of relevant research.
16	FHI 360 resources related to nutrition	FHI 360 works in food security and emergency nutrition, micronutrients and food fortification, maternal and child nutrition, and nutrition and infectious diseases.

Knowledge Hubs without a search engine

1	Johns Hopkins University COVID-19, Maternal and Child Health, Nutrition	A repository compiled by the Johns Hopkins Center for Humanitarian Health provides an overview of what peer-reviewed journal articles currently state on COVID-19, maternal and child health (including infants), and nutrition. The publications are updated at least monthly.
2	Johns Hopkins University COVID-19, Breastfeeding, Infant Feeding, Breast Milk	A subsidiary COVID-19 repository from the above resource (Johns Hopkins Centre for Humanitarian health) with a specific focus on breastfeeding, infant feeding and breastmilk. This can also be accessed on the main COVID-19 maternal and child health, nutrition website.



3	Scaling Up Nutrition COVID-19 knowledge hub	This knowledge hub aims to be a resource for all members of the SUN Movement to get informed about COVID-19 developments, at large. It also sheds light on important links between COVID-19 and nutrition, hunger, health and food systems – by bringing together important updates, guidance, articles and opinion pieces, in its initial stage.
4	Innovations for Poverty Action: Research for Effective COVID-19 Responses (RECOVR)	This knowledge hub funded by the Bill and Melinda Gates foundation provides a range of initiatives from Innovation Poverty Action (IPA) on the Research for Effective COVID-19 Responses (RECOVR). It also includes a range of analysis of socioeconomic impacts of COVID-19 on low-and-middle-income countries.
5	The State of Acute Malnutrition: Innovations and COVID-19 Adaptations in the Management of Child Wasting	This page serves to track protocol adaptations across contexts, highlight innovative case studies, and aggregate available resources as part of a study by Action Against Hunger, USAID, UNICEF, and the US Centers for Disease Control.
6	CGIAR Response to COVID-19 & CGIAR COVID-19 Hub	CGIAR, as the world's largest public agricultural research network, is working to anticipate and address the causes and consequences of the COVID-19 crisis, building on work that spans almost half a century. The <u>CGIAR COVID-19 Hub</u> , in collaboration with the London School of Hygiene & Tropical Medicine, was created to ensure that a research- informed response effectively reaches the world's most vulnerable. So far, this hasn't been updated regularly.
7	UNSCN COVID-19 Recent News	Provides a list of resources on Food Systems and Nutrition responses and COVID-19 pandemic. Last updated July 31, 2020.
8	UNICEF Coronavirus disease (COVID-19) information centre	Provides stories and features on how countries are responding to the pandemic, resources for policy makers and frontline workers, as well as UNICEF data tools.
9	Global Nutrition Cluster Technical Alliance	Provides global, regional, and country-level resources for COVID-19 to assist Nutrition in Emergencies (NiE) practitioners and coordination teams with integration of COVID-19 preparedness and response into humanitarian nutrition response.
10	CARE Reports and Resources	A resource library of CARE's latest reports and publications.
11	Save the Children COVID-19 Resource Centre	An online library that hosts comprehensive, reliable and up-to-date information on Save the Children's work and thematic areas, including their COVID-19 response and coverage.
12	ENN: COVID-19 and Nutrition Programming	A live question and answer forum on COVID-19 and nutrition programming
13	GAIN Reports and Publications	Advocacy and policy documents, conference presentations and proceedings, peer-reviewed publications, programme and project documents, as well as tools and guidance documents.
		C C
14	Nutrition International Learning Resources	Research and knowledge products generated by NI including scientific articles, guidelines, fact sheets, policy briefs, online tools.

Table 1. 4. Data Portals

Name

Description



1	UNICEF Tracking the situation of children during COVID-19	A dashboard providing interactive data visualisations based on quarterly updates of recent data collection efforts from UNICEF country offices drawing on best available sources in each country, including administrative data or representative survey data collected in the last 3 months. The current version presents highlights from 159 countries as of late August 2020. The next update will take place in Q1 2021 (approximately March 2021)
2	UNICEF Data to inform the COVID-19 response	This portal pulls together various existing datasets that UNICEF maintains on a number of indicators relevant to the COVID-19 response for children.
3	COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)	The Johns Hopkins Coronavirus Resource Center (CRC) is a continuously updated source of COVID-19 data and expert guidance. The center aggregates and analyses the best data available on COVID-19—including cases, as well as testing, contact tracing and vaccine efforts.
4	IMF Policy Response to COVID-19	The IMF's policy tracker summarises the key economic responses that governments are taking to limit the human and economic impact of the COVID-19 pandemic. The tracker includes 197 economies and is updated regularly.
5	60 Decibels- Listening in the time of COVID- 19	60 decibels are conducting a series of interviews and surveys to explore some of the impacts of COVID-19 on peoples livelihoods. This dashboard presents the latest of their findings and is updated weekly.
6	WFP School Feeding Map	The World Food Programme is monitoring the provision of meals for school children during school closures and assessing alternative solutions from the government and/or WFP. This portal visualises the latest results and updates regularly.
7	IFPRI COVID Policy Tracker	The portal aggregates policy responses in nine different domains for countries where IFPRI and its partner institutions have country and regional programs and projects. The information can be analysed by country or policy response category.
8	COVID-19 High- <u>Frequency</u> Monitoring Dashboard	Dashboard from the World Bank that presents harmonized indicators from high-frequency phone surveys conducted in over 40 countries in response to the COVID-19 pandemic. Data are available from indicators in 12 topic areas including food security.



Annex 2: References of documents used by TASC

60 Decibels. (2021, March 9). *Listening in the time of COVID-19*. 60_decibels. <u>https://app.60decibels.com/covid-19#explore</u>

Abate, G. T., de Brauw, A., & Hirvonen, K. (2020). *Food and nutrition security in Addis Ababa, Ethiopia during COVID-19 pandemic: June 2020 report* (0 ed.). International Food Policy Research Institute. <u>https://doi.org/10.2499/p15738coll2.133766</u>

Abay, K. A., Berhane, G., Hoddinott, J. F., & Tafere, K. (2020). *COVID-19 and food security in Ethiopia: Do social protection programs protect?* International Food Policy Research Institute (IFPRI). <u>https://doi.org/10.2499/p15738coll2.134146</u>

Adewopo, J., Solano Hermosilla, G., Micale, F., & Colen, L. (2020). *Crowdsourced data reveals threats to household food security in near real-time during COVID-19 pandemic*. https://doi.org/10.2499/p15738coll2.133737

Adolescents' experiences of covid-19 and the public health response in Jordan. (n.d.). GAGE. Retrieved December 11, 2020, from <u>https://www.gage.odi.org/publication/adolescents-experiences-of-covid-19-and-the-public-health-response-in-jordan/</u>

Ahmed, T., Rahman, A. E., Amole, T. G., Galadanci, H., Matjila, M., Soma-Pillay, P., Gillespie, B. M., El Arifeen, S., & Anumba, D. O. C. (2021). The effect of COVID-19 on maternal newborn and child health (MNCH) services in Bangladesh, Nigeria and South Africa: Call for a contextualised pandemic response in LMICs. *International Journal for Equity in Health*, *20*(1), 77. <u>https://doi.org/10.1186/s12939-021-01414-5</u>

Agampodi, T. C., Hromi-Fiedler, A., Agampodi, S. B., Amarasinghe, G. S., Wickramasinghe, N. D., Jayasinghe, I. U., Hettiarachchi, A. U., & Perez-Escamilla, R. (n.d.). A self-applied valid scale for rapid tracking of household food insecurity among pregnant women in Sri Lanka. *Maternal & Child Nutrition*, *n/a*(n/a), e13165. <u>https://doi.org/10.1111/mcn.13165</u>

Alive & Thrive. (2020). An Overview of Alive and Thrive's Implementation Research (p. 12). <u>https://www.aliveandthrive.org/wp-content/uploads/2020/10/Implementation-Research-Summary-Brief_v7-NO-SUMMARY-map.pdf</u>

AMIS_Market_Monitor_current.pdf. (n.d.). Retrieved March 2, 2021, from <u>http://www.amis-outlook.org/fileadmin/user_upload/amis/docs/Market_monitor/AMIS_Market_Monitor_current.pdf</u>

Egger, D., Miguel, E., Warren, S. S., Shenoy, A., Collins, E., Karlan, D., Parkerson, D., Mobarak, A. M., Fink, G., Udry, C., Walker, M., Haushofer, J., Larreboure, M., Athey, S., Lopez-Pena, P., Benhachmi, S.,

Ashish, K. (2020). Effect of the COVID-19 pandemic response on intrapartum care, stillbirth, and neonatal mortality outcomes in Nepal: A prospective observational study—The Lancet Global Health. https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(20)30345-4/fulltext

Béné, C., Bakker, D., Rodriguez, M. C., Even, B., Melo, J., & Sonneveld, A. (2021). *Impacts of COVID-19 on people's food security: Foundations for a more resilient food system* (0 ed.). International Food Policy Research Institute. <u>https://doi.org/10.2499/p15738coll2.134295</u>

Bhatt, N. (2020). Breastfeeding in India is disrupted as mothers and babies are separated in the pandemic. *BMJ*, *370*, m3316. <u>https://doi.org/10.1136/bmj.m3316</u>

Bodamaev, S., & Tuwo, A. (n.d.). *INDONESIA COVID-19: Economic and Food Security Implications* (p. 38). WFP. <u>https://docs.wfp.org/api/documents/WFP-</u>0000116063/download/? ga=2.879857.1124278459.1597768347-1870693230.1576591270

Borkowski, A., Correa, J. S. O., Bundy, D. A. P., Burbano, C., Hayashi, C., Lloyd-Evans, E., Neitzel, J., & Reuge, N. (n.d.). *COVID-19: Missing More Than a Classroom*. 30.

Boughton, D., Goeb, J., Lambrecht, I., Headey, D., Takeshima, H., Mahrt, K., Masias, I., Goudet, S., Ragasa, C., Maredia, M. K., Minten, B., & Diao, X. (2021). Impacts of COVID-19 on agricultural production and food systems in late transforming Southeast Asia: The case of Myanmar. *Agricultural Systems*, *188*, 103026. <u>https://doi.org/10.1016/j.agsy.2020.103026</u>



Busch-Hallen, J., Walters, D., Rowe, S., Chowdhury, A., & Arabi, M. (2020). Impact of COVID-19 on maternal and child health. *The Lancet Global Health*, *8*(10), e1257. <u>https://doi.org/10.1016/S2214-109X(20)30327-2</u>

Carducci, B., Keats, E. C., Ruel, M., Haddad, L., Osendarp, S. J. M., & Bhutta, Z. A. (2021). Food systems, diets and nutrition in the wake of COVID-19. *Nature Food*, *2*(2), 68–70. <u>https://doi.org/10.1038/s43016-021-00233-9</u>

Chopra, S., Ranjan, P., Singh, V., Kumar, S., Arora, M., Hasan, M. S., Kasiraj, R., Suryansh, null, Kaur, D., Vikram, N. K., Malhotra, A., Kumari, A., Klanidhi, K. B., & Baitha, U. (2020). Impact of COVID-19 on lifestyle-related behaviours- a cross-sectional audit of responses from nine hundred and ninety-five participants from India. Diabetes & Metabolic Syndrome, 14(6), 2021–2030. https://doi.org/10.1016/j.dsx.2020.09.034

COVID-19 High-Frequency Monitoring Dashboard. (n.d.). [Text/HTML]. World Bank. Retrieved February 18, 2021, from https://www.worldbank.org/en/data/interactive/2020/11/11/covid-19-high-frequency-monitoring-dashboard

COVID-19 is making it harder for vulnerable people to access healthy food. (n.d.). Global Alliance for Improved Nutrition (GAIN). Retrieved December 15, 2020,

from https://www.gainhealth.org/resources/reports-and-publications/covid-19-making-it-harder-vulnerable-people-access-healthy-food

Das, S., Rasul, M. G., Hossain, M. S., Khan, A.-R., Alam, M. A., Ahmed, T., & Clemens, J. D. (2020). Acute food insecurity and short-term coping strategies of urban and rural households of Bangladesh during the lockdown period of COVID-19 pandemic of 2020: Report of a cross-sectional survey. *BMJ Open*, *10*(12), e043365. <u>https://doi.org/10.1136/bmiopen-2020-043365</u>

Diao, X., Dorosh, P. A., Fang, P., & Schmidt, E. (2020). *Effects of COVID-19 on Papua New Guinea's food economy: A multi-market simulation analysis*. <u>https://doi.org/10.2499/p15738coll2.134174</u>

Dodgson, J. (2020). *Protecting and Supporting the WHO International Code During COVID-*19. <u>https://journals.sagepub.com/doi/10.1177/0890334420939554</u>

Dong, E., Du, H., & Gardner, L. (2020, May 1). An interactive web-based dashboard to track COVID-19 in real time. The Lancet Infectious Diseases;

Elsevier. https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30120-1/abstract

Effect of Covid-19 on food security: A cross-sectional survey—Clinical Nutrition ESPEN. (n.d.). Retrieved December 1, 2020, from https://clinicalnutritionespen.com/article/S2405-4577(20)30213-8/fulltext

Egger, D., Miguel, E., Warren, S. S., Shenoy, A., Collins, E., Karlan, D., Parkerson, D., Mobarak, A. M., Fink, G., Udry, C., Walker, M., Haushofer, J., Larreboure, M., Athey, S., Lopez-Pena, P., Benhachmi, S., Humphreys, M., Lowe, L., Meriggi, N. F., ... Vernot, C. (2021). Falling living standards during the COVID-19 crisis: Quantitative evidence from nine developing countries. *Science Advances*, 7(6), eabe0997. https://doi.org/10.1126/sciadv.abe0997

Fact sheets—Malnutrition. (n.d.). Retrieved December 15, 2020, from <u>https://www.who.int/news-room/fact-sheets/detail/malnutrition</u>

FAO. (2020a). COVID-19 and Its Impact on Agri-food Systems, Food Security and Nutrition: Implications and Priorities for the Africa Region. FAO Regional Conference for Africa (ARC), Rome, Italy. http://www.fao.org/publications/card/en/c/NE079EN

FAO. (2020b). Food Outlook – Biannual Report on Global Food Markets. FAO. <u>https://doi.org/10.4060/cb1993en</u>

FAO. (2020c). The State of Food Security and Nutrition in the World 2020: Transforming food systems for affordable healthy diets. FAO, IFAD, UNICEF, WFP and WHO. <u>https://doi.org/10.4060/ca9692en</u>

FAO. (2021a) Food Price Monitoring and Analysis (FPMA) Bulletin #1. (n.d.). Retrieved March 9, 2021, from http://www.fao.org/3/cb3318en/cb3318en.pdf

FAO. (2021b). Food Price Monitoring and Analysis Bulletin #2, 10 March 2021 (p. 20). http://www.fao.org/3/cb3750en/cb3750en.pdf



FAO. (2021c). Crop Prospects and Food Situation (Quarterly Global Report No. 1). FAO. https://doi.org/10.4060/cb3672en

FAO. (2021d). The impact of disasters and crises on agriculture and food security: 2021. FAO. https://doi.org/10.4060/cb3673en

FAO and WFP. (2020). FAO-WFP early warning analysis of acute food insecurity hotspots. FAO and WFP. <u>https://doi.org/10.4060/cb0258en</u>

FAO and WFP. (2021). *Market situation in West and Central Africa*. Retrieved April 8, 2021, from https://reliefweb.int/sites/reliefweb.int

Fernandes. (2020). Economic Effects of Coronavirus Outbreak (COVID-19) on the World Economy by Nuno Fernandes: SSRN. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3557504

Freudenreich, H., Demmler, K. M., Fongar, A., Jäckering, L., & Rudolf, K. (n.d.). *Effective interventions to increase food and nutrition security in response to Covid-19.* 9.

GAIN. (2020). Impact of COVID-19 on Food Systems: A Situation Report, Edition 4 (No. 4).

GAIN. https://www.gainhealth.org/sites/default/files/publications/documents/impact-of-covid-19-on-foodsystems-a-situation-report-iv.pdf

Gates Foundation (2020). COVID-19 A Global Perspective: 2020 Goal Keepers Report. Retrieved December 10, 2020, from https://www.gatesfoundation.org/goalkeepers/downloads/2020-report/report_a4_en.pdf

GFF, Ahmed, 2020 | Tashrik, Fern, P. A., ez, Drouard, S., Friedman, J., Hashemi, T., Kakietek, J., K, E., pal, Rilling, C., Rusatira, J. de D., Shapira, G., & Vergeer, P. (2020). *Monitoring continuity of essential health services during the COVID-19 Pandemic | Global Financing*

Facility. https://www.globalfinancingfacility.org/monitoring-continuity-essential-health-services-during-covid-19-pandemic

GHRP. (2021). Global Humanitarian Response Plan COVID-19 Progress Report: Final Progress Report— 22 Feb 2021 | HumanitarianResponse.

https://www.humanitarianresponse.info/en/operations/sudan/document/global-humanitarian-responseplan-covid-19-progress-report-final-progress

GIEWS - Global Information and Early Warning System. (2020a). *FPMA Bulletin, December 2020*. Food and Agriculture Organization of the United Nations. <u>http://www.fao.org/3/cb2424en/cb2424en.pdf</u>

Global Nutrition Cluster. (n.d.). *Global Nutrition Cluster (GNC) support dashboard*. COVID-19 Data Portal. Retrieved January 14, 2021,

from https://app.powerbi.com/view?r=eyJrljoiODc3Zjk0ZDgtZmFiOC00NTI0LTk3YmUtNDI0N2NiMTk3M2 QxliwidCl6ljVIZjFhZDQ4LWJkZTgtNDY0My1hODlhLWVkMTQyNml0NGJjMyJ9&pageName=ReportSecti on6d9ff2d2802443c630e5

Guidance on Household Surveys during COVID-19_Final version.pdf. (n.d.). Retrieved December 10, 2020, from https://www.nutritioncluster.net/sites/nutritioncluster.com/files/2020-10/Guidance%20on%20Household%20Surveys%20during%20COVID-19 Final%20version.pdf

Haiek, L. N., LeDrew, M., Charette, C., & Bartick, M. (n.d.). Shared decision-making for infant feeding and care during the coronavirus disease 2019 pandemic. *Maternal & Child Nutrition*, *n/a*(n/a), e13129. https://doi.org/10.1111/mcn.13129

Harris, J., Depenbusch, L., Pal, A. A., Nair, R. M., & Ramasamy, S. (2020). Food system disruption: Initial liveliho od and dietary effects of COVID-19 on vegetable producers in India. *Food Security*, *12*(4), 841–851. <u>https://doi.org/10.1007/s12571-020-01064-5</u>

Headey, D. D., Oo, T. Z., Mahrt, K., Diao, X., Goudet, S., & Lambrecht, I. (2020a). *Poverty, food insecurity, and social protection during COVID-19 in Myanmar: Combined evidence from a household telephone survey and micro-simulations*. International Food Policy Research Institute (IFPRI). <u>https://doi.org/10.2499/p15738coll2.134144</u>

Headey, D. D., Oo, T. Z., Mahrt, K., Diao, X., Goudet, S., & Lambrecht, I. (2020b). Waves of disease, waves of poverty: New evidence on the economic impacts of COVID-19 in Myanmar. https://doi.org/10.2499/p15738coll2.134144



Headey, D., Heidkamp, R., Osendarp, S., Ruel, M., Scott, N., Black, R., Shekar, M., Bouis, H., Flory, A., Haddad, L., & Walker, N. (2020). Impacts of COVID-19 on childhood malnutrition and nutrition-related mortality. *The Lancet*, *396*(10250), 519–521. <u>https://doi.org/10.1016/S0140-6736(20)31647-0</u>

Heidkamp, R. A., Piwoz, E., Gillespie, S., Keats, E. C., D'Alimonte, M. R., Menon, P., Das, J. K., Flory, A., Clift, J. W., Ruel, M. T., Vosti, S., Akuoku, J. K., & Bhutta, Z. A. (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*, *0*(0). <u>https://doi.org/10.1016/S0140-6736(21)00568-7</u>

Hirvonen, K., de Brauw, A., & Abate, G. T. (2020). *Food consumption and food security during the COVID-19 pandemic in Addis Ababa* (0 ed.). International Food Policy Research Institute. <u>https://doi.org/10.2499/p15738coll2.134018</u>

HNN. (2020). Webinars on COVID-19, newborn and perinatal

health. *Healthy Newborn Network*. <u>https://www.healthynewbornnetwork.org/event/webinars-on-covid-19-and-newborn-perinatal-health/</u>

Hoang, D. V., Cashin, J., Gribble, K., Marinelli, K., & Mathisen, R. (2020). Misalignment of global COVID-19 breastfeeding and newborn care guidelines with World Health Organization recommendations. *BMJ Nutrition, Prevention & Health*, bmjnph. <u>https://doi.org/10.1136/bmjnph-2020-000184</u>

How COVID-19 is changing the world: A statistical perspective, Volume II (p. 80). (n.d.). UNICEF. <u>https://data.unicef.org/wp-content/uploads/2020/07/covid19-report-ccsa.pdf</u>

How should we measure food security during crises? The case of Nigeria | Africa South of the Sahara. (2021, February 21). <u>https://ssa.foodsecurityportal.org/node/1676</u>

IFPRI. (2020, August 20). COVID-19 Food Price Monitor. <u>https://www.foodsecurityportal.org/tools/COVID-19-food-price-monitor</u>

IFPRI. (n.d.-a). *COVID-19 Policy Response (CPR) Portal*. COVID-19 Policy Response (CPR) Portal. Retrieved January 14, 2021,

from https://public.tableau.com/views/CPRPORTAL/Overview?%3Aembed=y&%3AshowVizHome=no&%3 Adisplay_count=y&%3Adisplay_static_image=y&%3AbootstrapWhenNotified=true&%3Alanguage=en-GB&publish=yes&:embed=y&:showVizHome=n&:apiID=host0#navType=0&navSrc=Parse

Impact of COVID on Children-Snapshot report.pdf .pdf. (n.d.). Retrieved November 30, 2020, from https://reliefweb.int/sites/reliefweb.int/files/resources/Impact%20of%20COVID%20on%20Children-Snapshot%20report.pdf%20.pdf

Innovations for Poverty Action. (2021). *Policy Brief: Impacts of the Pandemic on Vulnerable Households with Children in Bangladesh*. <u>https://www.poverty-action.org/publication/policy-brief-impacts-pandemic-vulnerable-households-with-children-bangladesh</u>

Integrated Food Security Phase Classification. (n.d.). *Integrated Food Security Phase Classification Snapshot | January—June 2021—Somalia* [Map]. Retrieved February 5, 2021, from <u>https://reliefweb.int/sites/reliefweb.int/files/resources/IPC Somalia AFI AMN 2021JanJuly Snapsho</u> <u>t.pdf</u>

Integrated Food Security Phase Classification Technical Manual Version 3.0 - Evidence and Standards for Better Food Security and Nutrition Decisions. (2019). IPC Global

Partners. http://www.ipcinfo.org/fileadmin/user upload/ipcinfo/manual/IPC Technical Manual 3 Final.pdf

International Monetary Fund. *Policy Responses to COVID19*. (n.d.). IMF. Retrieved March 10, 2021, from https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19

Jawaldeh, A. A., Doggui, R., Borghi, E., Aguenaou, H., Ammari, L. E., Abul-Fadl, A., & McColl, K. (2020). Tackling Childhood Stunting in the Eastern Mediterranean Region in the Context of COVID-19. *Children*, 7(11), 239. <u>https://doi.org/10.3390/children7110239</u>

IPC. (2021). SADC IPC Acute Food Insecurity Phase Classification. The Integrated Food Security Phase Classification (IPC).

https://reliefweb.int/sites/reliefweb.int/files/resources/IPC_SADC_Acute_Food_Insecurity_16.March_.2021 .pdf



Josephson, A., Kilic, T., & Michler, J. D. (n.d.). *Socioeconomic Impacts of COVID-19 in Four African Countries* (p. 60). World Bank Group.

http://documents.worldbank.org/curated/en/955251604433596591/Socioeconomic-Impacts-of-COVID-19in-Four-African-Countries

Kansiime, M. K., Tambo, J. A., Mugambi, I., Bundi, M., Kara, A., & Owuor, C. (2021a). COVID-19 implications on household income and food security in Kenya and Uganda: Findings from a rapid assessment. *World Development*, *137*, 105199. <u>https://doi.org/10.1016/j.worlddev.2020.105199</u>

Kenya—Key Message Update: Fri, 2021-01-29 | Famine Early Warning Systems Network. (n.d.). Retrieved February 5, 2021, from https://fews.net/east-africa/kenya/key-message-update/january-2021

Knorr, D., & Khoo, C.-S. H. (2020). COVID-19 and Food: Challenges and Research Needs. *Frontiers in Nutrition*, 7. https://doi.org/10.3389/fnut.2020.598913

Kundu, S., Banna, M. H. A., Sayeed, A., Sultana, M. S., Brazendale, K., Harris, J., Mandal, M., Jahan, I., Abid, M. T., & Khan, M. S. I. (undefined/ed). Determinants of household food security and dietary diversity during the COVID-19 pandemic in Bangladesh. *Public Health Nutrition*, 1–9. <u>https://doi.org/10.1017/S1368980020005042</u>

Laborde, D., Martin, W., Swinnen, J., & Vos, R. (2020a). COVID-19 risks to global food security. *Science*, *369*(6503), 500–502. https://doi.org/10.1126/science.abc4765

Laborde Debuquet, D., Martin, W., & Vos, R. (2020b). *Impacts of COVID-19 on Global Poverty, Food Security and Diets* (IFPRI Discussion Paper 01993, p. 50) [Discussion Paper]. IFPRI.

Laderchi, C. R., Bismarck, T., & Patel, N. (2020). *Strengthening Food Systems' Resilience to COVID-19: Initial Lessons from FOLU Countries' Responses to the Global Pandemic*. 25.

Malnutrition: Emergencies and disasters. (n.d.). Retrieved December 15, 2020, from https://www.who.int/news-room/g-a-detail/malnutrition-emergencies-and-disasters

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

Monitoring COVID-19 Impact on Households in Kenya. (n.d.). [Text/HTML]. World Bank. Retrieved February 18, 2021, from <u>https://www.worldbank.org/en/country/kenya/brief/monitoring-covid-19-impact-on-households-and-firms-in-kenya</u>

Narayanan, S., & Saha, S. (2021). Urban food markets and the COVID-19 lockdown in India. Global Food Security, 29, 100515. <u>https://doi.org/10.1016/j.gfs.2021.100515</u>

Nchanji, E. B., & Lutomia, C. K. (2021). Regional impact of COVID-19 on the production and food security of common bean smallholder farmers in Sub-Saharan Africa: Implication for SDG's. *Global Food Security*, *29*, 100524. <u>https://doi.org/10.1016/j.gfs.2021.100524</u>

Nordhagen, S., Igbeka, U., Rowlands, H., Shine, R. S., Heneghan, E., & Tench, J. (2021). COVID-19 and small enterprises in the food supply chain: Early impacts and implications for longer-term food system resilience in low- and middle-income countries. *World Development*, *141*, 105405. https://doi.org/10.1016/j.worlddev.2021.105405

Nutrition critical: Why we must all act now to tackle child malnutrition (p. 47). (2020). Save the Children. https://resourcecentre.savethechildren.net/node/18600/pdf/nutrition critical africa version.pdf

Nutrition-information-COVID-Brief#2 Final July2020.pdf. (n.d.). Retrieved December 10, 2020, from https://www.nutritioncluster.net/sites/nutritioncluster.com/files/2020-07/Nutrition-information-COVID-Brief%232%20Final%20July2020.pdf

Nguyen, P. H., Friedman, J., Kak, M., Menon, P., & Alderman, H. (2018). Maternal depressive symptoms are negatively associated with child growth and development: Evidence from rural India. Maternal & Child Nutrition, 14(4), e12621. https://doi.org/10.1111/mcn.12621

Oakley, E., Baird, S., Haque, M. A., Jones, N., Raihan, S., & Seager, J. (n.d.). Adolescents' experiences of covid-19 and the public health response in urban Dhaka, Bangladesh. 8.

Obesity and overweight. (n.d.). Retrieved December 16, 2020, from <u>https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight</u>



OCHA. (2021). COVID-19 Data Explorer: Global Humanitarian Operations Monthly Highlights, 28 February 2021. https://data.humdata.org/dataset/2048a947-5714-4220-905be662cbcd14c8/resource/79bfca07-d55b-44ab-a214-5608367d2d1f/download/ocha-data-explorer-monthlyreport.pdf

Olonan-Jusi, E., Zambrano, P. G., Duong, V. H., Anh, N. T. T., Aye, N. S. S., Chua, M. C., Kurniasari, H., Moe, Z. W., Ngerncham, S., Phuong, N. T. T., & Datu-Sanguyo, J. (2021). Human milk banks in the response to COVID-19: A statement of the regional human milk bank network for Southeast Asia and beyond. *International Breastfeeding Journal*, *16*(1), 29. <u>https://doi.org/10.1186/s13006-021-00376-2</u>

Pakravan-Charvadeh, M. R., Mohammadi-Nasrabadi, F., Gholamrezai, S., Vatanparast, H., Flora, C., & Nabavi-Pelesaraei, A. (2020). The short-term effects of COVID-19 outbreak on dietary diversity and food security status of Iranian households (A case study in Tehran province). *Journal of Cleaner Production*, 124537. <u>https://doi.org/10.1016/j.jclepro.2020.124537</u>

Peng, S., Zhu, H., Yang, L., Cao, L., Huang, X., Dynes, M., Narayan, A., Xia, J., Chen, Y., Zhang, P., Liu, H., Li, H., & Xia, S. (2020). A study of breastfeeding practices, SARS-CoV-2 and its antibodies in the breast milk of mothers confirmed with COVID-19. *The Lancet Regional Health – Western Pacific*, 4. <u>https://doi.org/10.1016/j.lanwpc.2020.100045</u>

Policy Responses to COVID19. (n.d.). IMF. Retrieved January 14, 2021, from https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19

Popkin, B. M., Du, S., Green, W. D., Beck, M. A., Algaith, T., Herbst, C. H., Alsukait, R. F., Alluhidan,

M., Alazemi, N., & Shekar, M. (2020). Individuals with obesity and COVID-19: A global perspective on the epidemiology and biological relationships. *Obesity Reviews*, *21*(11), e13128. https://doi.org/10.1111/obr.13128

Rahimov, B., & Mustaphi, K. S. and P. (2020). Integrating screening for acute malnutrition into the vitamin A supplementation campaign in the Rohingya camps during the COVID-19 pandemic. *Field Exchange* 63, 61.

Rana, R., Barthorp, H., & Beri, M. T. M. and A. (2020). *Implementing the family-MUAC approach for infants under 6 months in the context of COVID-19 in Ethiopia*. <u>https://www.ennonline.net/fex/64/ethiopiagoalcovidadaptations</u>

Rollins, N., Minckas, N., Jehan, F., Lodha, R., Raiten, D., Thorne, C., Van de Perre, P., Ververs, M., Walker, N., Bahl, R., & Victora, C. G. (2021). A public health approach for deciding policy on infant feeding and mother–infant contact in the context of COVID-19. *The Lancet Global Health*. https://doi.org/10.1016/S2214-109X(20)30538-6

Rwanda—Key Message Update: Fri, 2021-01-29 | Famine Early Warning Systems Network. (n.d.). Retrieved February 5, 2021, from https://fews.net/east-africa/rwanda/key-message-update/january-2021

S. Mahendra, D. (2020). COVID-19 crisis: An opportunity for long-delayed agricultural reforms in India | IFPRI : International Food Policy Research Institute. <u>https://www.ifpri.org/blog/covid-19-crisis-opportunity-long-delayed-agricultural-reforms-india</u>

Save the Children. (2020). 11m children under five at risk of extreme hunger or starvation across eleven countries—Democratic Republic of the Congo. ReliefWeb. <u>https://reliefweb.int/report/democratic-republic-congo/11m-children-under-five-risk-extreme-hunger-or-starvation-across</u>

Saxena, A., Amin, A., Mohan, S. B., & Mohan, P. (2020). Food Insecurity in Tribal High Migration Communities in Rajasthan, India. *Food and Nutrition Bulletin*, 0379572120967163. <u>https://doi.org/10.1177/0379572120967163</u>

Shumba, C., Maina, R., Mbuthia, G., Kimani, R., Mbugua, S., Shah, S., Abubakar, A., Luchters, S., Shaibu, S., & Ndirangu, E. (2020). Reorienting Nurturing Care for Early Childhood Development during the COVID-19 Pandemic in Kenya: A Review. *International Journal of Environmental Research and Public Health*, *17*(19). https://doi.org/10.3390/ijerph17197028doi: 10.3390/ijerph17197028.

Singh, S., Nourozi, S., Acharya, L., & Thapa, S. (2020). Estimating the potential effects of COVID-19 pandemic on food commodity prices and nutrition security in Nepal. *Journal of Nutritional Science*, 9. <u>https://doi.org/10.1017/jns.2020.43</u>



Storz, M. A. (2020). The COVID-19 pandemic: An unprecedented tragedy in the battle against childhood obesity. *Clinical and Experimental Pediatrics*, *63*(12), 477–482. <u>https://doi.org/2020.63.12.477</u>

Strachan, A. L. (n.d.). *The impact of Covid-19 on research methods and approaches* (p. 12). Institute of Development Studies. Retrieved March 22, 2021, from

https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/15962/Covid%20Collective%20Help_desk%202%20The%20impact%20of%20Covid-

19%20on%20research%20methods%20and%20approaches.pdf?sequence=1&isAllowed=y

Swinnen, J., & McDermott, J. (2020). COVID-19 and global food security (0 ed.). International Food Policy Research Institute. <u>https://doi.org/10.2499/p15738coll2.133762</u>

Tamru, S., Hirvonen, K., & Minten, B. (2020). *Impacts of the COVID-19 crisis on vegetable value chains in Ethiopia* (0 ed.). International Food Policy Research

Institute. https://doi.org/10.2499/p15738coll2.133762_18

Tech RRT. (2020a). A Learning and Sharing "Café": IYCF Programming Adaptations in the Context of COVID-19 – Third Cafe. https://s16947.pcdn.co/wp-content/uploads/2020/10/Cafe-3 Final no-videos.pdf

Tech RRT. (2020b). A Learning and Sharing "Café": IYCF Programming Adaptations in the Context of COVID-19 – Fourth Cafe. <u>https://s16947.pcdn.co/wp-</u>content/uploads/2020/11/cafe4_slidedeck_27102020_final.pdf

The DHS Program—COVID-19. (n.d.). Retrieved December 10, 2020, from https://dhsprogram.com/topics/COVID-19.cfm

The DHS Program—COVID-19 Update: Some DHS surveys return to the field; others postponed until 2021. (n.d.). Retrieved February 19, 2021, from https://dhsprogram.com/Who-We-Are/News-Room/COVID-19-Update-Some-DHS-surveys-return-to-the-field-others-postponed-until-2021.cfm

The DHS Program. (2021). Guidelines for Virtual Technical Assistance and Survey Implementation during the Covid-19 Pandemic (English). <u>https://www.dhsprogram.com/publications/publication-od80-other-documents.cfm</u>

The Impact of COVID-19 on Children in West and Central Africa: Learning from 2020. (2021, January 18). Resource

Centre. https://resourcecentre.savethechildren.net/node/18647/pdf/rapport_covid_anglais.pdf

The potential impacts of the COVID-19 crisis on maternal and child undernutrition in low and middle income countries. (2020). <u>https://doi.org/10.21203/rs.3.rs-123716/v1</u>

The State of Acute Malnutrition. (n.d.-b). *Innovations and COVID-19 Adaptations in the Management of Child Wasting—State of Acute Malnutrition*. The State of Acute Malnutrition. Retrieved January 14, 2021, from https://www.acutemalnutrition.org/en/innovations-and-covid19-adaptations

The State of the World's Children 1998. (n.d.). Retrieved December 14, 2020, from https://www.unicef.org/sowc98/fig5.htm

Tulleken, C. van, Wright, C., Brown, A., McCoy, D., & Costello, A. (2020). Marketing of breastmilk substitutes during the COVID-19 pandemic. *The Lancet*, *396*(10259), e58. <u>https://doi.org/10.1016/S0140-6736(20)32119-X</u>

Uganda—Key Message Update: Fri, 2020-07-31 | Famine Early Warning Systems Network. (n.d.). Retrieved December 11, 2020, from https://fews.net/east-africa/uganda/key-message-update/july-2020

Uganda—Key Message Update: Fri, 2021-01-29 | Famine Early Warning Systems Network. (n.d.). Retrieved February 5, 2021, from https://fews.net/east-africa/uganda/key-message-update/january-2021

UN. (2020). UN Research Roadmap for the COVID-19 Recovery. 128.

UNICEF. (2020a). UNICEF Global COVID-19 Situation Report No. 14: October 2020 -World. https://reliefweb.int/report/world/unicef-global-covid-19-situation-report-no-14-october-2020

UNICEF. (2020b, September 24). *Tracking the situation of children during COVID-19*. UNICEF DATA. <u>https://data.unicef.org/resources/rapid-situation-tracking-covid-19-socioeconomic-impacts-data-viz/</u>



UNICEF. (2020c). Humanitarian Action for Children 2021 Overview.

UNICEF. https://www.unicef.org/reports/humanitarian-action-children-2021-overview

UNICEF. (2020d, December 30). *COVID-19 and conflict: A deadly combination*. <u>https://www.unicef.org/coronavirus/covid-19-and-conflict-deadly-combination</u>

UNICEF, MENA. (n.d.). *The potential impact of health care disruption on child mortality in MENA due to COVID-19.* Retrieved February 16, 2021, from https://www.unicef.org/mena/reports/potential-impact-health-care-disruption-child-mortality-mena-due-covid-19

UNICEF, WHO, and the World Bank Group. (n.d.). *Levels and trends in child malnutrition: Key findings of the 2020 edition*. Retrieved February 16, 2021, from <u>https://www.unicef.org/reports/joint-child-malnutrition-estimates-levels-and-trends-child-malnutrition-2020</u>

UNOCHA. (2020). Zimbabwe Situation Report. https://reports.unocha.org/en/country/zimbabwe/

UNOCHA. (2021, January 13). Asia Pacific Regional Humanitarian Update. ASIA PACIFIC REGIONAL HUMANITARIAN UPDATE. <u>https://reports.unocha.org/en/country/asia-pacific/</u>

Update on the CGIAR Research Response to COVID-19. (n.d.). Retrieved January 14, 2021, from https://a4nh.cgiar.org/files/2020/12/COVID-19-Hub-Update-December-2020.pdf

USING DATA TO FIND A BALANCE: Disruption to essential health services in Africa during COVID-19. (n.d.). *Africa CDC*. Retrieved December 9, 2020, from <u>https://africacdc.org/download/using-data-to-find-a-balance-disruption-to-essential-health-services-in-africa-during-covid-19/</u>

Weekly-SUN-Movement-Briefing_18Dec2020.pdf. (n.d.). Retrieved January 13, 2021, from https://scalingupnutrition.org/wp-content/uploads/2020/12/Weekly-SUN-Movement-Briefing_18Dec2020.pdf

World Food Programme. (2020a). COVID-19 L3 Emergency—External Situation Report #17, 2 December 2020—World. <u>https://reliefweb.int/report/world/covid-19-I3-emergency-external-situation-report-17-2-december-2020</u>

World Food Programme. (2020b). *Global Monitoring of School Meals During COVID-19 School Closures*. <u>https://cdn.wfp.org/2020/school-feeding-map/index.html</u>

World Food Programme. (2020c). Populations at Risk: Implications of COVID-19 for Hunger, Migration and Displacement, November 2020 | World Food

Programme. <u>https://www.wfp.org/publications/populations-risk-implications-covid-19-hunger-migration-displacement-2020</u>

World Food Programme. (2020d). COVID-19 will double number of people facing food crises unless swift action is taken | World Food Programme. <u>https://www.wfp.org/news/covid-19-will-double-number-people-facing-food-crises-unless-swift-action-taken</u>

World Food Programme. (2020e). Covid-19 Pandemic: Impact of restriction measures in West Africa. (2020). https://reliefweb.int/report/burkina-faso/covid-19-pandemic-impact-restriction-measures-west-africa

World Food Programme. (2021a). *Food Security Situation in the Kyrgyz Republic*. <u>https://docs.wfp.org/api/documents/WFP-0000124521/download/</u>

World Food Programme. (2021b). *The Impact of COVID-19 on Households in Nepal: Third round of mVAM Household Livelihoods, Food Security and Vulnerability Survey.* https://reliefweb.int/sites/reliefweb.int/files/resources/Nepal%20COVID%20Food%20Security%20Report_3.pdf

World Food Programme. (2021c, January 14). *WFP HungerMap Live: Hunger and COVID-19 Weekly Snapshot*. https://hungermap.wfp.org/

World Food Programme. (2021d). WFP News Release: Hunger in urban Zimbabwe Peaks as the ripple efffect of COVID-19 is felt across the nation.

https://reliefweb.int/sites/reliefweb.int/files/resources/WFP%20News%20Release 1.pdf

WFP and FAO. (2021). *Hunger Hotspots: FAO-WFP early warnings on acute food insecurity: March to July 2021 outlook*. <u>https://docs.wfp.org/api/documents/WFP-</u>0000125170/download/? ga=2.259197069.668529650.1619525492-1797117845.1619525492



WHO. (2020a). *Breastfeeding and COVID-19*. <u>https://www.who.int/news-room/commentaries/detail/breastfeeding-and-covid-19</u>

WHO. (2020b). Clinical management of COVID-19: interim guidance, 27 May 2020. World Health Organization. <u>https://apps.who.int/iris/handle/10665/332196</u>. License: CC BY-NC-SA 3.0 IGO

WHO. (2020c). Pulse survey on continuity of essential health services during the COVID-19 pandemic: Interim report, 27 August 2020. <u>https://www.who.int/publications-detail-redirect/WHO-2019-nCoV-EHS_continuity-survey-2020.1</u>

WHO | DALYs / YLDs definition. (n.d.). WHO; World Health Organization. Retrieved February 18, 2021, from https://www.who.int/mental_health/management/depression/daly/en/

Wieser, C., Sosa, L. M. C., Ambel, A. A., Tsegay, A. H., & Pimhidzai, O. (2021). COVID-19 AND THE RURAL ECONOMY: EVIDENCE FROM HIGH FREQUENCY PHONE SURVEYS. 8, 8

World Bank (2021a). *Food Security and COVID-19*. Retrieved February 17, 2021, from https://www.worldbank.org/en/topic/agriculture/brief/food-security-and-covid-19

World Bank. (2021b). *How livelihoods deteriorated in Sub-Saharan Africa due to COVID-19*. Retrieved February 17, 2021, from <u>https://blogs.worldbank.org/africacan/how-livelihoods-deteriorated-sub-saharan-africa-due-covid-19</u>

World Bank. (2021c). Impact-of-COVID-19-on-Nigerian-Households-9th-Round-Results.pdf (Round 9). http://documents1.worldbank.org/curated/en/684341615572989780/pdf/Impact-of-COVID-19-on-Nigerian-Households-9th-Round-Results.pdf

World Bank (2021d). *Responding to a stark rise in food insecurity across the poorest countries*. (n.d.). Retrieved March 11, 2021, from <u>https://blogs.worldbank.org/voices/responding-stark-rise-food-insecurity-across-poorest-countries</u>

World Bank (2021e). *World bank high frequency monitoring dashboard*. (n.d.). Retrieved February 18, 2021,

from https://www.bing.com/search?q=world+bank+high+frequency+monitoring+dashboard&cvid=34c6742 7c22542509ffff2f28a10687d&FORM=ANAB01&PC=U531

Wrabel, B. M., & Stobaugh, S. K. and H. (2021). Adaptations to community-based acute malnutrition treatment during the COVID-19 pandemic. *Field Exchange 64*, 55.

