



FOOD SECURITY IN A PANDEMIC



PREPAREDNESS



RESPONSE



RECOVERY

This tool will help you to:

- Provide a thorough introduction to staff and volunteers about the key ways in which a pandemic may cause severe hunger and nutrition problems in your municipality
- Understand what local leaders can do to reduce potential food security problems during a pandemic

Who will implement this tool:

- The mayor
- Members of the *municipal leadership team*, emergency response team, disaster management team, and communications support team
- Lead staff from relevant sectors and agencies of your municipality

This tool will introduce you to the basic elements of food security and ways in which an influenza pandemic may impact it. You will also find measures that can be taken to prevent, alleviate, and respond to many of a pandemic's negative consequences on food security.

WHAT IS FOOD SECURITY?

Food security in a community depends on three main pillars:

- food **availability**
- food **access**
- food **utilization**

Food availability means that enough food is physically present for the entire population. It is in markets and shops, is grown on farms or home gardens, or has arrived as the result of food aid.

Food security in a community exists when all people at all times have both physical and economic access to sufficient food to meet their dietary needs for productive and healthy lives.

Food access means that individuals can obtain available food. Households may access food in many ways: growing, buying, and bartering; or through gifts, welfare programs, or food aid. Food access is ensured when households have enough resources, like land, money, or social connections, to obtain nutritious foods in adequate amounts.

Food utilization refers to the way people's bodies are able to use the food they eat. Making the best use of foods depends on proper food storage and processing, overall nutrition and health status, the availability of clean drinking water, and adequate health and sanitation services.

WHAT ARE THE FIRST SIGNS THAT A PANDEMIC HAS AFFECTED FOOD SECURITY?

The global health impact of an influenza pandemic may affect workforces, transportation systems, and supply chains. The impact of the virus in other areas of the world may result in your community experiencing a food crisis even before the influenza virus causes severe health problems in your municipality. Some of the first things that you will notice that indicate a pandemic could cause a food security problem are:

- Industries that rely on import and export are struggling.
- Food supplies are hard to get locally.
- Economic activities are disrupted.

DID YOU KNOW:

The first sign that a community may experience a food security crisis due to pandemic influenza may **NOT** be an outbreak of disease.

For more information, see Tool 1, *Priority Actions to Lead Your Municipality Through a Pandemic* and Tool 2, *Presentation on the Threat of a Severe Influenza Pandemic*.

WHO MIGHT BE MOST AT RISK FOR FOOD SECURITY PROBLEMS?

Some groups will be more at risk than others for the food security impact of a pandemic. The most at-risk populations in most emergency situations are those that are already struggling with hunger, health, and poverty. These populations will be at great risk during a severe pandemic. In addition to these groups, many other households are vulnerable to the impact of a severe pandemic because of the way it may affect economic and social systems. Any household that has not taken necessary actions to prepare for a severe pandemic will face greater difficulties in coping with the impacts of spreading disease.

Groups typically at risk in all emergencies	Additional groups at risk in a pandemic
<ul style="list-style-type: none"> • People with limited or irregular income • People who cannot build up emergency reserves of money or food • People in poor health (especially malnutrition, chronic disease, and compromised immune systems) • Those living with stigma (people living with HIV, prisoners and their families, the mentally ill, the disabled) • The isolated (living in a remote location or having no social network) • The homeless or internally displaced • The elderly • Those with little or no transportation • Orphans and vulnerable children 	<ul style="list-style-type: none"> • Those who rely on markets for the majority of food purchases (experts believe that market systems may be severely impacted) • People without knowledge about how to prepare for a pandemic • Those employed in occupations that may be severely impacted (tourism, restaurants, taxi drivers, etc.) • People who rely on public transportation to get to job • People who migrate for income • Caregivers

For more information, see Tool 8, *Classification of Food Security Risk Locations* and Tool 9, *Identification of People Most at Risk of Food Insecurity*.

WHY SHOULD MUNICIPAL AUTHORITIES TAKE ACTIONS TO PROTECT FOOD SECURITY RIGHT NOW?

Municipalities can help reduce possible food emergencies by paying close attention to what is happening at the local level in terms of food security. Building community resilience is key to surviving disasters. The way to build resilience is to communicate, plan, prepare, and invest time and money long before a disaster is present in your municipality. Your immediate actions can help reduce the negative impact that a pandemic, or other emergency, may have on the food security of your municipality because:

- By the time you notice food shortages it may be too late to produce more food locally or to expect that national governments or international agencies can get food to you in time.
- Transporting food to your communities will be difficult if transportation systems break down.
- Even if you can get food to your communities, purchasing and stockpiling food to get through a 6–12 week pandemic wave will become very expensive if food prices rise as expected.

THE SUCCESS OF MUNICIPAL EFFORTS TO ENSURE FOOD SECURITY COULD HINGE ON THREE IMPORTANT FACTORS:

- The degree to which the public is informed about the necessity of household and community preparedness
- The capacity of public and private agencies to organize and provide basic services and needed assistance under stressful circumstances
- The degree to which mass confusion, civil disorder, and conflicts over resources disrupt or complicate response efforts

WHAT DOES THE MUNICIPAL LEADERSHIP TEAM NEED TO DO?

In many countries food security is handled at the national level. However, during a severe pandemic, national governments may be overwhelmed and may be unable to provide timely assistance to every municipality. The most important thing to do is start planning for your municipality now, in the likely event that your municipality will have to become food self-sufficient for a period of time.

Municipal leaders will want to take the necessary steps to:

- Work with national governments and private sector providers to secure essential food stocks (*food availability*) during successive periods (waves) of 6–12 weeks when normal supplies of food may be disrupted.
- Ensure that the population can obtain the food they need (*food access*), especially the most vulnerable individuals (infants, young children and women, elderly people, homeless people, people living with HIV/AIDS and other chronic illness, disabled people, and homebound individuals).
- Educate the public about the necessity of increased hygiene, nutrition, and safe food and water storage. Work with national and regional governments to reduce malnutrition and other debilitating diseases so that people’s bodies can make the best use of the foods they eat (*food utilization*).

HOW CAN MUNICIPAL LEADERSHIP PROTECT FOOD SECURITY?

A wide range of actions can support and protect food security in a pandemic. Most of these responses depend on early planning, which is why *preparedness* is so important. After considering a range of responses, the municipal leadership team should determine which actions best suit the local context. You may find that many of these responses are also appropriate after the pandemic, during the recovery period.

The charts on the following pages describe conditions in a municipality that could impact food availability, food access, and food utilization. Each chart provides a menu of potential responses to consider based on the conditions of your municipality. The chart also suggests the stage of the pandemic where these actions will be most helpful.

Tools which offer more guidance on how to put these actions into place are listed in the last box of each of the three charts (availability, access, and utilization).

REMEMBER!

Effective public messages about local food availability will be critical during a pandemic to provide credibility to “do not flee” messages. For more information, see Tool 12, *Fundamentals of Communication During Crises and Emergencies*.

The overall challenge for local leaders is to guarantee enough nutritious food for each community as well as fair distribution of that food for several months at a time. This means that after each wave, food stocks need to be replenished before the next wave arrives.

POTENTIAL FOOD SECURITY ISSUES AND ACTIONS DURING A PANDEMIC

Conditions that Could Cause Food Availability Problems	Actions to Reduce Potential Food Availability Problems	Timing of Support
<ul style="list-style-type: none"> Restrictions on transportation and disruptions in the markets may quickly create shortage problems 	<ul style="list-style-type: none"> Educate the public about the critical need to prepare for food shortages at the household level: <ul style="list-style-type: none"> Promote stockpiling, home production, canning, and food preservation 	Before pandemic Early pandemic
<ul style="list-style-type: none"> Many communities (especially urban centers) rely on markets, with limited home food production and/or processing Local production/harvests are insufficient to begin with People are not able to work because they are sick, which leads to less local food production and smaller harvests 	<ul style="list-style-type: none"> Increase household and community food production: <ul style="list-style-type: none"> Distribute seeds, tools, and fertilizers for small rural farms and urban gardens Provide local agricultural and livestock extension (technical assistance) services 	Before pandemic Early pandemic After pandemic
<ul style="list-style-type: none"> Acquired food spoils due to improper storage 	<ul style="list-style-type: none"> Transport and stockpile basic, high-energy, and high-nutrient foods for the community: <ul style="list-style-type: none"> Contact central government representatives to find out about availability and location of national food stocks for emergencies and prepositioned donations from national and international food aid agencies Purchase extra stock from local and regional food suppliers and growers Request donations from local retailers 	Before pandemic Early pandemic During pandemic After pandemic
<ul style="list-style-type: none"> A significant amount of food is committed for sale to other areas outside the municipality 	<ul style="list-style-type: none"> Take an inventory of public and private storage facilities that could be used for emergency food stockpiling Restrict the export of locally produced food crops that are necessary to feed the population of the municipality 	Before pandemic During pandemic

These are just a few examples. What else might work? For more information, see Tool 11, *Distribution of Emergency Food During an Influenza Pandemic*, and Tool 10, *Household Food Security Preparedness*.

Conditions that Could Cause Food Access Problems	Actions to Reduce Potential Food Access Problems	Timing of Support
<ul style="list-style-type: none"> Food prices may drastically increase and make many food items unaffordable to those on limited incomes Shopkeeper bias during times of limited resources may result in people being turned away from markets because of their race, ethnicity, religion, political beliefs, or disability Households may have less money available to purchase food due to: <ul style="list-style-type: none"> - reduced income due to illness, care giving, or job loss - more money must be used to pay high medical fees or funeral expenses 	<ul style="list-style-type: none"> Accurately identify those most at risk Encourage cooperative sharing/barter of food and resources (while respecting social distancing measures if in place) Organize food voucher programs with local shopkeepers that allow at-risk households to obtain food in exchange for a voucher Organize fair price shops that sell basic items at controlled prices Provide food in exchange for assisting in key response areas during a pandemic Distribute food to the most vulnerable residents in a way that minimizes contact between people when social distancing measures are in place Deliver food and water to isolated households and individuals 	<p>Before pandemic Early pandemic</p> <p>Before pandemic Early pandemic During pandemic</p> <p>Before pandemic Early pandemic During pandemic After pandemic</p> <p>During pandemic</p> <p>During pandemic</p>
<ul style="list-style-type: none"> People who live alone may become too ill to physically get to a market or food distribution site 	<ul style="list-style-type: none"> Initiate widespread public campaigns about the devastating consequences that hoarding can have on at-risk populations—specifically targeted at those who can afford to buy extra, and merchants and traders who may speculate Determine whether to place purchase limitations on specific products likely to be hoarded 	<p>Before pandemic Early pandemic During pandemic</p> <p>During pandemic</p>
<ul style="list-style-type: none"> Those who are able to afford extra food may hoard more than they need 	<ul style="list-style-type: none"> Implement a price freeze on staple and nutritious food items that form important parts of local diets 	<p>During pandemic</p>
<ul style="list-style-type: none"> Merchants and traders seeking higher profits may withhold available food until prices spike 	<ul style="list-style-type: none"> Facilitate low-cost credit arrangements with local shopkeepers, medical facilities, and those who provide funeral services Negotiate short-term debt relief programs (to preserve assets and cash reserves) Determine whether cash transfer programs are available through regional or central government. If so, provide at-risk households with links to these programs 	<p>Before pandemic Early pandemic During pandemic After pandemic</p>
<ul style="list-style-type: none"> Due to economic disruptions, local shopkeepers may stop offering credit to customers Producers/distributors may not have the fuel or other means to get available harvests and livestock to central locations 	<ul style="list-style-type: none"> Provide transportation support that allows producers to get products to market or community food warehouses 	<p>During pandemic</p> <p>During pandemic</p>
<p>These are just a few examples. What else might work? For more information, see Tool 9, <i>Identification of People Most at Risk of Food Insecurity</i>; Tool 11, <i>Distribution of Emergency Food During an Influenza Pandemic</i>; and Tool 19, <i>Recovery and Resilience</i>.</p>		

Conditions that Could Cause Food Utilization Problems	Actions to Reduce Potential Food Utilization Problems	Timing of Support
<ul style="list-style-type: none"> Lack of knowledge about hygiene, nutrition, sanitation, and proper child feeding practices Contaminated water may increase intestinal illnesses that will contribute to malnutrition and dehydration; these illnesses will make it more difficult for people to fight off the pandemic virus 	<ul style="list-style-type: none"> Educate households about the nutritional food requirements of short- or medium-term emergencies like the pandemic Educate households about water treatment and storage Educate households about the need for increased hygiene 	<p>Before pandemic Early pandemic During pandemic After pandemic</p>
<ul style="list-style-type: none"> Power outages could impact safe food storage causing food to spoil Service outages could affect the ability to properly cook food People may resort to using unsafe water sources if water shortages occur 	<ul style="list-style-type: none"> Distribute containers for proper water storage Implement contingency plan to maintain essential services such as water, power, and basic sanitation during a severe pandemic Distribute vitamin supplements 	<p>Before pandemic Early pandemic During pandemic After pandemic</p>
<ul style="list-style-type: none"> Lack of food variety may prevent people from consuming essential micronutrients 	<ul style="list-style-type: none"> Encourage households to grow fruits and vegetables to provide essential micronutrients Assure that municipality-acquired foods for community stockpiles will meet the nutritional energy needs of your populations when they are combined into food baskets for distribution 	<p>Before pandemic Early pandemic During pandemic After pandemic</p>
<ul style="list-style-type: none"> Widespread illness: malnutrition, HIV, and other debilitating diseases 	<ul style="list-style-type: none"> Work with national and regional governments to reduce malnutrition and other debilitating diseases so that people's bodies can make the best use of the foods they eat 	<p>Before pandemic After pandemic</p>

These are just a few examples. What else might work? For more information, see Tool 16, *Maintenance of Essential Services*; Tool 11, *Distribution of Emergency Food During an Influenza Pandemic*; and Tool 10, *Household Food Security Preparedness*.

FOOD SECURITY IS A MULTISECTORAL CHALLENGE

Food insecurity during an influenza pandemic is not a threat that stands separate from the sectors of health, family welfare, commerce, or governance and public services. Now that you have explored how a severe pandemic may impact each pillar of food security, it is time to examine why the protection of food security must be integrated into all sectors. Key partners may include, but are not limited to, the following:

- Agricultural producers and processors
- Commerce and industry employers
- Labor and farmer associations
- Humanitarian and development nongovernmental organizations (NGOs)
- National emergency management agencies
- Public works and water agencies
- Community leaders and teachers
- Food wholesalers and retail markets
- Transportation companies/associations
- Community-based and religious organizations
- Health centers and hospitals
- Public security agencies

The chart on the following page will help the municipal leadership team understand how the potential problems that a municipality may face in a pandemic are interconnected. It offers some main points to consider as the team begins to prepare for and meet the challenges of a pandemic. It also offers a menu of potential responses to consider based on the conditions in the municipality.

Following the comprehensive one-page chart are expanded sector-specific charts that explain what might happen if a municipality does not prepare for a severe pandemic, and actions that each sector can take to protect food security. Local geography, demographics, economic and social structures, as well as the severity of the virus in the region will determine the specific preparation and response actions most appropriate for each community.



FOOD SECURITY IN AN INFLUENZA PANDEMIC: A MULTISECTORAL CHALLENGE

Sector	Potential Events What can happen if the pandemic arrives in full force to the municipality	Consequences What might happen if local authorities do not prepare before the pandemic virus arrives	Preparedness What you can do before the pandemic virus arrives to reduce death and suffering	Responses Actions that you can take to lessen the impact once the pandemic virus has arrived in your municipality
A Health and Medical Services	Large numbers of sick and dying people High levels of grief High rates of work absenteeism in all sectors	Increased demand on clinic and hospital services Shortages of medications and supplies Disruptions in essential services resulting in diminished sanitation and shortages of clean water and food	Develop municipal health sector plans Medical supply stockpiling Develop plan to prioritize care Provide training in home and community-based healthcare	Implement measures to limit the spread of the pandemic virus Encourage and support home-based healthcare for those able to be cared for at home Encourage community-based healthcare for sicker persons
B Family Welfare and Food Security	Temporary family disability Decrease in household food production, cash earned, childcare, homemaking, and educational activities	Limited or no household income Less food available to eat Less cash available to buy essentials Negative coping strategies used by households to obtain food or cash Social disintegration	Identify the households most at risk of food insecurity Acquire community food stockpiles for later distribution Increase household food stockpiling, production, preservation	Prioritize who gets food transfers Establish small decentralized distribution centers Deliver food to isolated households Encourage barter among households using social distance measures
C Commerce, Trade, and Travel	Restrictions on movements of people, goods, and services	Disruptions in food delivery (import, export, and regional trading) Negative economic impacts on households and businesses	Assess all resources Plan to address gaps Create business continuity plans	Implement social distancing Allocate scarce resources Create alternate employment schemes Organize barter and fair-trade shops
D Governance and Public Services	Strain on public services	Rumors, misinformation, panic Conflicts over public resources	Review national food security plans and resources Develop contingency plans Develop information and communication systems	Keep government running Implement risk/crisis communication to prevent public panic and conflict

SURVIVING AN INFLUENZA PANDEMIC – UNDERSTAND WHAT CAN HAPPEN, BE PREPARED, AND TAKE ACTION

A		Health and Medical Services	
<p>Potential Events What can happen if the pandemic arrives in full force to the municipality</p>	<p>Consequences What might happen if local authorities do not prepare before the pandemic virus arrives</p>	<p>Preparedness What you can do before the pandemic virus arrives to reduce death and suffering</p>	<p>Responses Actions that you can take to lessen the impact once the pandemic virus has arrived in your municipality</p>
<p>Large numbers of sick and dying people</p> <p>High levels of grief</p> <p>High rates of work absenteeism in all sectors</p> <p>A need to provide most healthcare in homes or in the community</p>	<p>Healthcare facilities overwhelmed</p> <p>Disruption of local leadership due to death and illness</p> <p>Dehydration due to pandemic illness and/or water shortages</p> <p>Increased non-pandemic deaths due to compromised healthcare service delivery, shortages of medications, or malnutrition</p> <p>Increased medical and funeral expenses</p> <p>High levels of anxiety and uncertainty</p>	<p>Stay Informed</p> <p>Create pandemic continuity of operations plan for health sector</p> <p>Assess the expected health impact and your available resources</p> <p>Training for home- and community-based care</p> <p>Continue health services for life-saving non-pandemic care and diseases</p> <p>Make sure foods acquired for emergency distribution meet nutritional energy needs</p> <p>Educate households about proper water treatment and storage and the need for increased hygiene</p> <p>Provide training in mental health and grief counseling</p> <p>Negotiate low-cost credit for medical and funeral expenses</p>	<p>Continuously Monitor</p> <p>Implement measures to limit the spread of the pandemic virus</p> <p>Encourage and support home-based healthcare for those able to be cared for at home</p> <p>Encourage community-based healthcare for sicker persons from whom facility-based care is not available or for whom home care is not possible</p> <p>Make direct food transfers to medical facilities</p> <p>Conduct ongoing observation, monitoring, and treatment of child malnutrition</p> <p>Provide psychosocial support and grief counseling</p>

SURVIVING AN INFLUENZA PANDEMIC – UNDERSTAND WHAT CAN HAPPEN, BE PREPARED, AND TAKE ACTION

Potential Events What can happen if the pandemic arrives in full force to the municipality	Consequences What might happen if local authorities do not prepare before the pandemic virus arrives	Preparedness What you can do before the pandemic virus arrives to reduce death and suffering	Responses Actions that you can take to lessen the impact once the pandemic virus has arrived in your municipality	
B Family Welfare and Food Security	Temporary family disability Decreased household food production, cash earned, childcare, homemaking, and educational activities Decreased participation in social and political activities Decreased personal and business transactions	Limited or no household income Less food produced in rural areas Less food available to eat Less cash available to buy essentials Households resort to negative coping strategies to obtain food or cash (e.g. sale of productive assets, hoarding, theft) Foreclosure on debts and loans Social disintegration <ul style="list-style-type: none"> • collapse of social relationships • emerging pockets of famine • mass migration 	Prepare for food shortages Identify households and regions most at risk of food insecurity Encourage households to increase food production, preservation, and stockpiling Distribute short-cycle seeds, provide agricultural extension services Hold community meetings to plan food sharing Encourage households to save a portion of their wages Take an inventory of available food and crops in the municipality Acquire community food stockpiles for later distribution Construct community and household food storage facilities	Prioritize who will receive emergency food rations Distribute food rations to at-risk households using small decentralized drop-off points Encourage barter among households using social distancing measures Provide home food delivery to isolated or ill households Negotiate debt relief and suspensions on foreclosures

SURVIVING AN INFLUENZA PANDEMIC – UNDERSTAND WHAT CAN HAPPEN, BE PREPARED, AND TAKE ACTION

C Commerce, Trade, and Travel	
<p>Potential Events What can happen if the pandemic arrives in full force to the municipality</p>	<p>Restrictions on movements of people, goods, and services</p> <p>Limitations on social gathering and travel that affects schools, religious groups, public meetings, family visitation</p> <p>Workforce absenteeism leads to breakdown of commerce and trade that affects food, energy, business inputs and sales, banking, and medical supplies</p>
<p>Consequences What might happen if local authorities do not prepare before the pandemic virus arrives</p>	<p>Market closures</p> <p>Hoarding of food, fuel, and other basic necessities</p> <p>Merchant and trader speculation</p> <p>Food spoilage in fields due to disrupted transportation systems</p> <p>Large quantities of refrigerated foods spoil due to power outages</p> <p>Economic impacts on households and businesses such as inflation, rising unemployment, loss of land and leases, resulting in tenants that have nowhere to live</p>
<p>Preparedness What you can do before the pandemic virus arrives to reduce death and suffering</p>	<p>Assess all resources and plan how you will address gaps</p> <p>Determine the status of supply chains for food, medical supplies, fuel, and other essential goods</p> <p>Organize and initiate local purchases of food stocks and essential goods</p> <p>Identify temporary employment opportunities in key sectors and prioritize public works projects</p> <p>Develop a continuity of operations (COOP) plan</p>
<p>Responses Actions that you can take to lessen the impact once the pandemic virus has arrived in your municipality</p>	<p>Enforce social distancing measures</p> <p>Set up fair trade and barter shops</p> <p>Develop alternate employment plans</p> <p>Restrict export of locally produced food crops that are necessary to feed the population of the municipality</p> <p>Provide transportation support that allows producers to get products to markets or community stockpiles</p> <p>Mandate a price freeze on staple and nutritious food items that form important parts of local diets</p> <p>Encourage businesses and clients to use the Internet and telephone for transactions</p>
<p>Continuously Monitor</p>	

SURVIVING AN INFLUENZA PANDEMIC – UNDERSTAND WHAT CAN HAPPEN, BE PREPARED, AND TAKE ACTION

Potential Events
 What can happen if the pandemic arrives in full force to the municipality

Consequences
 What might happen if local authorities do not prepare before the pandemic virus arrives

Preparedness
 What you can do before the pandemic virus arrives to reduce death and suffering

Responses
 Actions that you can take to lessen the impact once the pandemic virus has arrived in your municipality

D

Governance and Public Services

Strain on public services
 Reduced capacity to provide services such as police, justice, communications, water and sanitation, electricity, natural gas, transportation
 Loss of revenues from reduced collection of fees and taxes

Rumors, misinformation, panic
 Conflicts over public resources
 Reduction of basic privileges and rights
 People are excluded from obtaining necessary survival items due to bias or stigma
 Civil disorder, including riots over unsatisfied demands, rise in insurgent group activities, vandalism, armed attacks

Stay Informed
 Review national food security plans and available resources
 Strengthen local expertise in food security
 Develop COOP plans
 Identify services that must be continued
 • Train and organize volunteer staff to keep these services running in the event that regular staff are ill
 Develop information and communication mechanisms
 Develop public awareness programs
 Develop measures to ensure equal access to food and services
 Conduct trainings for conflict resolution services
 Establish procedures for community input and government transparency

Continuously Monitor
 Keep government running
 Implement effective crisis and emergency risk communication to prevent public panic and conflict
 Continuously share updated information about the municipality's food supply with the population
 Use volunteer staff to make sure that basic goods and services are provided
 Provide security services to community food warehouses and distribution centers, and to the transportation services that supply them
 Provide conflict resolution services using community advocates

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