

State of Georgia

Pandemic Influenza Planning Kit
for Outpatient Providers



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Goals of This Planning Kit

The Georgia Division of Public Health developed this planning kit to provide information that will help you prepare for an influenza pandemic so that you can:

- Help public health with the surveillance that will determine when the pandemic reaches your community
- Help limit the spread of the disease once a pandemic starts,
- Prepare your practice through planning and staff education

Background on Influenza Pandemics

A pandemic is a worldwide outbreak of a disease. An influenza (or flu) pandemic occurs when a new flu virus appears or “emerges” in the human population, causes serious illness, and then spreads easily from person to person worldwide.

Pandemics are different from seasonal outbreaks or “epidemics” of the flu.

- **Seasonal outbreaks** are caused by subtypes of flu viruses that already exist among people.
- **Pandemic outbreaks** are caused by new subtypes or by subtypes that have never circulated among people, or that have not circulated among people for a long time.

In a typical flu season, approximately 36,000 people die of the flu in the United States, mostly the elderly. Past influenza pandemics have led to high levels of illness, death, social disruption, and economic loss.

How New Subtypes of Flu Viruses Emerge

There are many different subtypes of flu viruses. The subtypes differ based upon certain proteins on the surface of the virus. Pandemic viruses emerge when there is a sudden, major change in flu viruses. These changes are caused by new combinations of the proteins on the surface of the virus. This change results in a new flu virus subtype.

The appearance of a new flu virus subtype is the first step toward a pandemic. But the new virus subtype also must spread easily from person to person to cause a pandemic. Once a new pandemic flu virus emerges and spreads, it normally becomes established among people and circulates for many years as seasonal epidemics of flu.

The U.S. Centers for Disease Control and Prevention and the World Health Organization monitor flu activity around the world, and look for new strains of flu virus to emerge that might cause a pandemic.

Flu Pandemics During the 20th Century

During the 20th century, the emergence of new flu virus subtypes caused three pandemics, all of which spread around the world within 1 year of being detected.

- In 1918-19, the “**Spanish flu**,” caused the highest number of known flu deaths. More than 500,000 people died in the United States. Up to 50 million people may have died worldwide. Many people died within the first few days after infection, and others died of complications later. Nearly half of those who died were young, healthy adults. For every 1,000 people who got the Spanish flu, 20 died.
- In 1957-58, “**Asian flu**,” caused about 70,000 deaths in the United States. First identified in China in late February 1957, the Asian flu spread to the United States by June 1957.
- In 1968-69, “**Hong Kong flu**,” caused about 34,000 deaths in the United States. This virus was first detected in Hong Kong in early 1968 and spread to the United States later that year. For every 1,000 people who got the Hong Kong flu, 5 died.

Both the Asian flu and the Hong Kong flu pandemics were caused by new viruses created when a human flu virus and an avian (bird) flu virus combined. It is now believed that the 1918-19 pandemic virus was also caused by an avian flu virus, with similarities to the H5N1 strain of the avian flu virus that is currently circulating in Asia and other parts of the world.

Stages of a Pandemic

The World Health Organization (WHO) has defined the phases of a pandemic:

Interpandemic period (between pandemics)

- Phase 1: No new flu virus subtypes have been detected in humans. A flu virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low.
- Phase 2: No new flu virus subtypes have been detected in humans. However, a circulating animal

flu virus subtype poses a substantial risk of human disease.

The difference between phase 1 and phase 2 is based on scientists' judgment of the risk of humans becoming infected by the subtypes that are infecting animals.

Pandemic alert period

Phase 3: Humans have become infected with a new subtype, but there has been no spreading of the virus from human-to-human.

Phase 4: There has been some human-to-human transmission, but it has been limited to small, highly localized cluster(s), suggesting that the virus is not well adapted to humans.

Phase 5: Human-to-human spread is still localized, but now in larger cluster(s), suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).

The distinction between phase 3, phase 4 and phase 5 is based on scientists' judgment of whether the virus is well-adapted to humans, how quickly it will spread, and how sick people will get when they have the virus.

Pandemic period

Phase 6: Human to human spread has increased and is sustained in the general population.

For more information on influenza pandemics, see the list of links in the reference section.

Vaccines to Protect Against Pandemic Flu Viruses

A vaccine probably will not be available in the early stages of a pandemic. Current vaccine production techniques require several months to produce a vaccine that is generally effective only for the specific strain(s) used in the production process. The CDC is working with the WHO and vaccine manufacturers on shortening the time needed to produce an effective vaccine.

Antiviral Medications to Prevent and Treat Pandemic Flu

Four different flu antiviral medications (amantadine (Symmetrel), rimantadine (Flumadine), oseltamivir (Tamiflu), and zanamivir (Relenza)) are approved by the U.S. Food and Drug Administration (FDA) for the treatment and/or prevention of flu. However, the flu viruses identified in human patients in Asia in 2004 and 2005 have been resistant to amantadine and rimantadine. Monitoring of avian viruses for resistance to flu antiviral medications is continuing.

The References section includes links to the CDC and WHO websites, where you can find information on antiviral medications, vaccines, vaccine research, and the current status of efforts to speed vaccine development. There is also a link to the recommendations of a joint working group of the Advisory Committee on Immunization Practices (ACIP) and the National Vaccine Advisory Committee (NVAC) regarding priorities for vaccine and anti-viral distribution during a pandemic when these resources are in short supply.

Preparing for a Pandemic

Preparing for a pandemic involves taking steps to limit, as much as possible, the number of people who get sick, preparing to take care of possibly large numbers of people who do get sick, and planning how to minimize the disruption to society. Even a mild pandemic will challenge the ability of the health care system because demand will go up even as resources are limited by staff absenteeism due to illness and the need to care for ill family members. (See the Health Care System Surge Capacity section for information on preparing the health care system for a pandemic.) High absentee rates will also make it more difficult to maintain other essential services. Therefore, a cornerstone of the government's plan to minimize the impact of the pandemic is to limit the number of people who get sick.

Non-pharmaceutical interventions (NPIs) will be the primary strategies for limiting the number of people who get sick in the early stages of the pandemic because:

- A vaccine probably will not be available for several months,
- Antibiotics don't work against viruses,
- Antiviral medications will be in short supply, and may not work if the virus becomes resistant.
- Non-pharmaceutical interventions include:
 - Voluntary isolation of the sick,
 - Voluntary quarantine of exposed individuals,
 - Child social distancing, *including school closures*, and
 - Adult social distancing.

How aggressively these interventions are implemented will depend on the severity of the pandemic as it unfolds. If, as expected, the pandemic begins overseas, we may have some information on how severe it will be as we are implementing our pandemic response. How much information we have and how quickly we have it will depend on how rapidly the pandemic spreads, in what country it starts, and how quickly it reaches our shores.

The CDC has developed a Pandemic Severity Index that is based on the case fatality rate (the percentage of the people who get the disease who die). This Index is designed to facilitate the development of response plans that are contingent upon the severity of the pandemic.

Table 1 shows the expected impact on Georgia of pandemics of various severities using the Pandemic Severity Index. The numbers of deaths expected assumes a 30% illness rate during the pandemic. The three pandemics that occurred in the last century are shown for reference purposes.

Voluntary Isolation of the Sick

This is the only intervention recommended by CDC for all severities of a pandemic. It is always advisable for people who are sick with an infectious disease to stay home and away from other people. However, whether because of the lack of sick benefits or just a desire to “tough it out”, in our culture it is the norm for people to go to work when they are sick. In a pandemic, it will be necessary to override this cultural norm and create strong community-based pressure to stay at home when ill.

Voluntary Quarantine of Exposed Individuals

What this intervention means is that all members of a household should stay home when any member of the household is ill with flu-like symptoms. Because people with the flu are contagious before they have symptoms, family members of those who are ill could infect classmates or co-workers before showing symptoms.

The CDC Interim Pre-Pandemic Planning Guidance recommends that this intervention be used in a Category 4 or 5 pandemic, and that it be considered for a Category 2 or 3 pandemic. The Guidance indicates that it is not recommended in a Category 1 pandemic for broad application across communities, but it may be advisable in a particular community or for a particular group of people.

Child Social Distancing

The CDC Planning Guidance uses a three-tiered strategy for planning for the dismissal of children from schools, colleges and universities, and childcare programs:

- No dismissal of students from schools or closure of childcare facilities in a Category 1 pandemic
- Short-term (up to 4 weeks) dismissal of students and closure of childcare facilities during a Category 2 or Category 3 pandemic

Table 1: Pandemic Severity Index

Category	Case Fatality Rate	Expected Number of Deaths in Georgia	20 th Century U.S. Experience
1	<0.1%	< 2,722	*
2	0.1 - <0.5%	2,722 - 13,609	1957, 1968
3	0.5 - <1.0%	13,609 - 27,218	None
4	1.0 - <2.0%	27,218 - 54,435	None
5	=> 2.0%	=> 54,435	1918 Pandemic

* Seasonal influenza has approximately this case fatality rate, but an illness rate of only 5 – 20% because of the existence of immunity in some individuals from prior exposure to the specific influenza virus circulating in any given year.

- Prolonged (up to 12 weeks) dismissal of students and closure of childcare facilities during a severe influenza pandemic (Category 4 or Category 5 pandemic)

Research shows that it is important that these measures be implemented *before* extensive spread of the virus has occurred in a specific community. **It is not recommended that communities wait to implement school closures until a threshold level of absenteeism in the schools is reached.** In all but the mildest category of pandemic, it is expected that schools will be closed for some period of time. If schools are not closed, pandemic response activities will focus on infection control in the schools.

Adult Social Distancing

Adult social distancing covers a range of measures including

- Canceling public gatherings, (for example, closing theatres or canceling sporting events),
- Increasing the distance between people by modifying work schedules to reduce the number of people in a particular space so that people can spread out more, and
- Decreasing social contacts (reducing face-to-face meetings in favor of teleconferences, teleworking for those able, replacing attendance at religious services with video services or home prayers).

As with voluntary quarantine of exposed individuals, the CDC Pandemic Planning Guidance recommends that this intervention be used in a Category 4 or 5 pandemic, and be considered for a Category 2 or 3 pandemic. It is not recommended in a Category 1 pandemic for broad

application across communities, but it may be advisable in a particular community or for a particular group.

Community Responsibility for Non-Pharmaceutical Interventions

Discussion of non-pharmaceutical interventions often focuses on official decisions to close schools or cancel public events. But as Table 2 shows, these official actions to close facilities in support of social distancing measures are a small part of any community’s toolbox for protecting its community during a pandemic.

Responsibility for successfully implementing non-pharmaceutical interventions must be shared across your community. In fact, successful implementation of *voluntary* isolation of the sick and *voluntary* quarantine of exposed individuals depends on individuals and families making the choice to stay at home when sick, or when a family member is sick. In order for them to be able to make that choice, employers must support that decision through liberalized sick leave policies that do not penalize employees who want to make the right choice for the community. Other members of the community must be willing to support affected households that are voluntarily staying away from the rest of the community by delivering food, medicine, or other supplies that might otherwise cause someone in the household to go to a store, possibly infecting others.

The first task of community leaders and public officials is providing accurate and timely information, as it is available. Just as importantly, they must coordinate these efforts of the various organizations in their community to maximize their effectiveness.

Table 2: Suggested Actions by Pandemic Severity and Type of Non-pharmaceutical Intervention

Category 1 Pandemic (case fatality rate = < 0.1%)			
	Isolation and Quarantine	Child Social Distancing	Adult Social Distancing
Official Actions	Encourage individuals and organizations in voluntary isolation of the sick. Coordinate systems that support affected households.	Encourage cough etiquette and hand hygiene.	Encourage cough etiquette and hand hygiene; encourage alternatives to handshaking.
Community Leadership (e.g., Segment Task Forces) Actions	Encourage individuals and organizations in voluntary isolation of the sick. Coordinate systems that support affected households.	Encourage cough etiquette and hand hygiene.	Encourage cough etiquette and hand hygiene; encourage alternatives to handshaking.
Organizational Actions	Support individual decisions to isolate sick through liberal sick leave policies. Support affected households.	Supports individual decisions to isolate sick through sick leave policies. Screen children and staff for illness and send ill home. Provide supplies for cough etiquette and hand hygiene. Actively encourage cough etiquette and hand hygiene.	Supports individual decisions to isolate sick through sick leave policies. Provide supplies for cough etiquette and hand hygiene. Actively encourage cough etiquette and hand hygiene; encourage alternatives to handshaking.
Individual Actions	Have <i>primary responsibility</i> for voluntary isolation of the sick.	Keep sick children home from school or day care. Practice cough etiquette and hand hygiene; teach and encourage children to do so.	Stay home from work when sick. Practice cough etiquette and hand hygiene; use alternatives to handshaking.

Table 2: Suggested Actions by Pandemic Severity and Type of Non-pharmaceutical Intervention

Category 2 or 3 Pandemic (case fatality rate = 0.1% to < 1.0%)			
	Isolation and Quarantine	Child Social Distancing	Adult Social Distancing
Official Actions	<p>Encourage voluntary isolation of the sick and voluntary quarantine of household members.</p> <p>Coordinate systems that support affected households with deliveries and moral support.</p>	<p>Cancel some extracurricular school activities.</p> <p>Encourage individuals and organizations to suspend low priority activities that involve social contact.</p> <p>Encourage cough etiquette and hand hygiene.</p> <p>[Close schools and day care facilities for up to 4 weeks.]</p>	<p>Encourage individuals and organizations to suspend low priority activities that involve social contact.</p> <p>Encourage cough etiquette and hand hygiene; encourage alternatives to handshaking.</p> <p>[Cancel public gatherings.]</p> <p>[Close recreational and entertainment facilities.]</p>
Community Leadership (e.g., Segment Task Forces) Actions	<p>Encourage voluntary isolation of the sick and voluntary quarantine of household members.</p> <p>Coordinate systems that support affected households with deliveries and moral support.</p>	<p>Encourage individuals and organizations to suspend low priority activities that involve social contact.</p> <p>Encourage cough etiquette and hand hygiene.</p>	<p>Encourage individuals and organizations to suspend low priority activities that involve social contact.</p> <p>Encourage cough etiquette and hand hygiene; encourage alternatives to handshaking.</p>
Organizational Actions	<p>Support individual decisions to isolate sick and quarantine household members through liberal sick leave policies.</p> <p>Support affected households with deliveries and moral support.</p>	<p>Suspend low priority extracurricular activities.</p> <p>Support individual decisions to isolate sick through sick leave policies.</p> <p>Screen children and staff for illness and send ill home.</p> <p>Provide supplies for cough etiquette and hand hygiene; actively encourage cough etiquette and hand hygiene.</p> <p>Support home learning for households that choose it.</p>	<p>Suspend low priority activities.</p> <p>Support individual decisions to isolate sick through sick leave policies.</p> <p>Screen employees for illness and send ill home.</p> <p>Provide supplies for cough etiquette and hand hygiene; actively encourage cough etiquette and hand hygiene; encourage alternatives to handshaking.</p> <p>Support working from home or modifications to work schedules, especially if there are essential workers or vulnerable individuals in the household.</p>
Individual Actions	<p>Have <i>primary responsibility</i> for voluntary isolation of the sick.</p> <p>Households that can may choose to voluntarily quarantine household members when someone in the household is ill.</p>	<p>Keep sick children home from school or day care.</p> <p>Practice cough etiquette and hand hygiene; teach and encourage children to do so.</p> <p>Suspend low priority extracurricular activities.</p> <p>Households that are able may choose to implement a home learning plan, especially if there is an essential worker or vulnerable individual in the household.</p>	<p>Stay home when ill.</p> <p>Practice cough etiquette and hand hygiene; use alternatives to handshaking.</p> <p>Suspend low priority extracurricular activities.</p> <p>Households that are able may choose to work from home or modify work schedules, especially if there is an essential worker or vulnerable individual in the household.</p>

Table 2: Suggested Actions by Pandemic Severity and Type of Non-pharmaceutical Intervention

Category 4 or 5 Pandemic (case fatality rate = > 1.0%)			
	Isolation and Quarantine	Child Social Distancing	Adult Social Distancing
Official Actions	<p>Encourage voluntary isolation of the sick and voluntary quarantine of household members.</p> <p>Coordinate systems that support affected households with deliveries and moral support.</p>	<p>Close schools and day care facilities for up to 12 weeks.</p> <p>Cancel extracurricular school activities.</p> <p>Encourage individuals and organizations to suspend non-essential activities that involve social contact.</p> <p>Encourage cough etiquette and hand hygiene.</p>	<p>Cancel public gatherings.</p> <p>Close recreational and entertainment facilities.</p>
Community Leadership (e.g., Segment Task Forces) Actions	<p>Encourage voluntary isolation of the sick and voluntary quarantine of household members.</p> <p>Coordinate systems that support affected households with deliveries and moral support.</p>	<p>Coordinate systems that support continued student learning while schools are closed.</p> <p>Encourage individuals and organizations to suspend non-essential activities that involve social contact.</p> <p>Encourage cough etiquette and hand hygiene.</p>	<p>Encourage individuals and organizations to suspend non-essential activities that involve social contact.</p> <p>Encourage cough etiquette and hand hygiene.</p>
Organizational Actions	<p>Support individual decisions to isolate sick and quarantine household members through liberal sick leave policies.</p> <p>Support affected households.</p>	<p>Suspend non-essential activities.</p> <p>Support those with school age children at home through sick leave policies.</p> <p>Implement plans for continuing student learning while schools are closed.</p> <p>Actively encourage cough etiquette and hand hygiene.</p>	<p>Modify workplace and work schedules to increase distances between people.</p> <p>Allow working from home, if possible.</p> <p>Suspend non-essential activities.</p> <p>Support individual decisions to isolate sick through sick leave policies.</p> <p>Screen employees for illness and send ill home.</p> <p>Provide supplies for cough etiquette and hand hygiene.</p> <p>Actively encourage cough etiquette and hand hygiene.</p>
Individual Actions	<p>Have <i>primary responsibility</i> for voluntary isolation of the sick.</p> <p>Have <i>primary responsibility</i> for voluntary quarantine of household members.</p>	<p>Implement home learning plan.</p> <p>Limit children’s exposure to other children.</p> <p>Suspend non-essential activities.</p> <p>Practice cough etiquette and hand hygiene; teach and encourage children to do so.</p>	<p>Stay home when ill.</p> <p>Work from home or modify work schedule, if possible.</p> <p>Practice cough etiquette and hand hygiene.</p> <p>Suspend non-essential activities.</p>

Response Steps

The steps between recognition that a pandemic is imminent and the decision to activate specific response plans are critical. CDC has defined three response steps to reflect the escalation of response action given specific triggers:

- *Alert* includes notification of critical systems and personnel of the impending activation of response plans,
- *Standby* includes initiation of decision-making processes for imminent activation, including mobilization of resources and personnel, and
- *Activate* refers to implementation of the specified pandemic mitigation measures.

Table 3 shows what events trigger each of these response steps.

Table 3: Triggers for Response Steps

Pandemic Severity Index	Response Steps		
	Alert	Standby	Activate
	Notification of critical systems and personnel	Initiation of decision-making processes; mobilization of resources and personnel	Implementation
1	Widespread human outbreaks in multiple locations overseas	First human case in North America	First laboratory confirmed cluster in a state or region*
2 and 3	Widespread human outbreaks in multiple locations overseas	First human case in North America	First laboratory confirmed cluster in a state or region*
4 and 5	Confirmed human outbreak overseas	Widespread human outbreaks in multiple locations overseas	First laboratory confirmed cluster in a state or region* (may be the first human case in North America)

* In metropolitan areas that cross state boundaries, the first cluster in the region would trigger activation, even if the cluster is in another state encompassed by the metropolitan area.

As part of your pandemic planning, we are asking you to identify what specific personnel should do during each of these response steps, what critical resources they will need, and the processes that they will follow, so that the transition time between *Alert*, *Standby*, and *Activate* can be minimized. Plans should be developed to address all pandemic severities.

Preparing Georgia

The effect of a pandemic will be very widespread. Every community will be affected. Even people who do not get sick will feel the effects of the pandemic because some activities will be cancelled and some businesses will close temporarily.

Georgia's pandemic flu community preparedness activities have the following goals:

1. Every resident of Georgia knows how to protect themselves and their families when a pandemic strikes.
2. Every resident of Georgia knows who to call/ where to go if someone in their family gets sick during the pandemic.
3. Services and systems are in place to care for large numbers of flu patients.
4. Essential services continue, with modifications planned in advance to minimize the impact of the pandemic.
5. Economic disruption is limited/controlled/ managed through pre-planning and community-wide cooperation.

100% participation in pandemic flu preparation is important!

Each county has been asked to create a County Pandemic Flu Planning Committee to help achieve these goals. (Smaller, rural counties may wish to join with a neighbor to ensure sufficient resources for planning.)

The Division of Public Health and the Georgia Emergency Management Agency is providing guidance and assistance to the County Pandemic Flu Planning Committees, but leaders in each community know best how to muster resources, and organize local government, businesses, schools, churches and other organizations.

To help communities plan for a pandemic, we have identified ten community segments that should be actively involved in planning:

1. Government
2. Public Health
3. Health Care System
4. Media
5. Business
6. Schools/Childcare
7. Transportation
8. Volunteer/Service Organizations
9. Faith-Based Organizations
10. General Public

Each of these segments has a somewhat different role in planning, and when the pandemic arrives. The role of organizations in the Health Care System segment are shown on the next page. Planning materials being prepared to assist health care providers in pandemic planning are also shown.

The Role of the Health Care System in Pandemic Planning and Response

Planning:

- Develop surge capacity plans using planning kits provided by the Division of Public Health (see below)
- Develop pandemic influenza plans
- Plan and place caches of critical equipment and supplies
- Ensure that patient care protocols to be used during health emergencies with resource shortages (personnel, supplies, and equipment) are consistent with state and Centers for Disease Control guidelines
- Coordinate with public health and other segments of community

When pandemic arrives:

- Implement surge capacity plans
- Implement pandemic influenza plans
- Deploy caches, as necessary
- Implement altered standards, as necessary
- Coordinate with public health and other segments of community

Resources:

- Healthcare Segment Task Force Worksheet
(included in County Pandemic Influenza Planning Committee Planning Kit)
- Hospital Surge Capacity Planning Kit
- EMS Surge Capacity Planning Kit (Draft 4)
- Emergent Care Surge Capacity Planning Kit
- Pandemic Influenza Planning Kit for Outpatient Providers (this document)

Infection Control During a Pandemic

Despite the prevalence of influenza year after year, most information on the modes of influenza transmission from person to person is indirect and largely obtained through observations during outbreaks in healthcare facilities and other settings; the amount of direct scientific information is very limited. However, the epidemiologic pattern observed is generally consistent with spread through close contact (i.e., exposure to large respiratory droplets, direct contact, or near-range exposure to aerosols).

While some observational and animal studies support airborne transmission through small particle aerosols, there is little evidence of airborne transmission over long distances or prolonged periods of time (as is seen with *M. tuberculosis*). The relative contributions and clinical importance of the possible modes of transmission of influenza remains unclear and may depend on the strain of virus ultimately responsible for a pandemic.

It is important to follow all standard precautions such as hand hygiene before and after all patient contact or contact with items that may be contaminated with respiratory secretions of infected persons. Persons who must be in contact with patients should:

- ✓ Wear a surgical or procedure mask for close contact with infectious patients.
- ✓ Use contact and airborne precautions.
- ✓ Wear gloves (gown if necessary) for contact with respiratory secretions.
- ✓ Perform hand hygiene after contact with infectious patients.

The addition of airborne precautions, including respiratory protection (an N95 filtering face piece respirator or other appropriate particulate respirator), may be considered for strains of influenza exhibiting increased transmissibility, during initial stages of an outbreak of an emerging or novel strain of influenza, and as determined by other factors such as vaccination/immune status of personnel and availability of antivirals.

The prioritization of respirator use during a pandemic remains unchanged: N-95 (or higher) respirators should be worn during medical activities that have a high

likelihood of generating infectious respiratory aerosols, for which respirators (not surgical masks) offer the most appropriate protection for health care personnel. Use of N-95 respirators is also prudent for health care personnel during other direct patient care activities (e.g., examination, bathing, feeding) and for support staff who may have direct contact with pandemic influenza patients. If N-95 or other types of respirators are not available, surgical masks provide benefit against large-droplet exposure and should be worn for all health care activities involving patients with confirmed or suspected pandemic influenza. Measures should be employed to minimize the number of personnel required to come in contact with suspected or confirmed pandemic influenza patients.

References

A link to CDC's Interim Guidance on Planning for the Use of Surgical Masks and Respirators in Health Care Settings during an Influenza Pandemic, from which this section was derived, can be found in the References section, beginning on page 18. The use of surgical masks by hospitalized patients and other symptomatic persons ("source control") is covered in the CDC's Interim Guidance for the Use of Masks to Control Influenza Transmission, also included in the Reference section.

The World Health Organization (WHO) publication, *Infection Control Recommendations for Avian Influenza in Health-Care Facilities*, has been reproduced on the next pages. You can check for the most up-to-date version at http://www.who.int/csr/disease/avian_influenza/guidelines/EPR_AM_final.pdf

More detailed infection control guidance can be found on the websites of the World Health Organization (WHO), the Centers for Disease Control and Prevention (CDC), and the Department of Health and Human Services (DHHS). Links to these websites are provided in the References section. As the epidemiologic characteristics of the pandemic virus are more clearly defined, CDC will provide updated infection control guidance, as needed.

Health Care System Surge Capacity

An Overview of Georgia's Statewide Integrated Surge Capacity Plan is included as Appendix A. The plan addresses inpatient care, emergent and ambulatory care, and patient transportation. Surge capacity for each of these three components consists of surge capacity within existing organizations, and temporary capacity that can be set up when needed, but must be planned in advance.

Hospitals completed their surge capacity planning kits during 2005. The Division of Public Health is providing funding to each hospital to purchase supplies and equipment to be stockpiled for use when surge capacity is activated in an emergency. **All** of the state's 150 acute care hospitals completed the Surge Capacity Planning Kit for Hospitals, reporting a total of:

- 2,276 ISC1 beds (equipped, but NOT staffed),
- 4,357 ISC2 beds (in day treatment and procedure units), and
- 6,952 ISC3 beds (spaces in hallways, classrooms).

These 13,585 beds represent a surge capacity of 77% over and above the approximately 17,642 normally equipped and staffed beds in Georgia's acute care hospitals.

Stockpiles of supplies and pharmaceuticals have been placed in individual hospitals to support the ISC1 and ISC2 capacity they reported. Public Health District stockpiles to support ISC3 beds include 7,000 disaster hospital beds, other equipment, supplies, and pharmaceuticals. The ISC beds, and the stockpiles to support them, give Georgia a surge capacity of 332% of the federal requirement.

The final component of Georgia's Integrated Surge Capacity Plan will be extremely important during a pandemic: Home Patient Care Management. The goal of this program is to keep people at home as long as they can be safely cared for by family or friends. The benefits of home management of patients include:

- Hospitals can concentrate on, and provide better care to, the sickest patients.
- Reduction in the exposure of flu patients to other infections that they would not be exposed to at home.
- Limiting the number of people with whom flu patients come in contact.

We will be asking people to stay at home and away from others as long as anyone in their household is sick with the flu (voluntary quarantine).

Home Patient Care Management (HPCM) will include:

- ▶ Information on how to care for a flu patient will be available in brochures, videos, and television broadcasts. These materials will also include information on how to protect the caregiver and other family members.
- ▶ An 800 number for people to call when someone in their family gets the flu. Public health nurses will coach them in how to care for their loved one, and will continue to follow-up with them until everyone in their family is well again. They will also help them to decide when they do need to go to a doctor's office or the hospital. Households with influenza patients will be enrolled in the Home Patient Care Management system, and provided with support services.
- ▶ Kits of medical supplies not normally found in homes will be delivered to patients' homes.
- ▶ Health care workers may visit homes if the nurse managing the patient's care feels that she needs an evaluation by a trained health care worker.
- ▶ Support services such as grocery, medication, and prepared meal delivery are being organized to help facilitate the voluntary quarantine.

We are hoping that outpatient providers will choose to integrate their own telephone triage efforts with the Home Patient Care Management System. Your nurses will be able to access the HPCM triage protocols online, and enroll your patients in the HPCM so that they can receive support services and supplies. Your staff can continue to manage your patients, while making the services of the HPCM available to them.

Planning for the HPCM is taking place at the state, public health district, and community level. The State Division of Public Health is developing the care management protocols based on CDC guidelines. Planning kits are being developed for each public health district to use in developing the Home Patient Care Management System in its district, and for Community Organizations that are willing to help provide support services to affected households.

The Role of Outpatient Providers in Georgia's Pandemic Influenza and Health Care System Surge Capacity Planning

If every outpatient provider in the state plans in advance what they will do when an influenza pandemic strikes, we will be better prepared to meet the needs of the people of Georgia. If those plans are coordinated within each community and across communities, and between the health care system and public health, we will be as prepared as we can be when the time comes. The purpose of this planning kit is to facilitate this planning process.

Outpatient providers can help to prepare for a pandemic in the following ways:

1. Participate in the Sentinel Provider network. Data from sentinel providers are critical for monitoring the impact of influenza and are used to help guide prevention and control activities, vaccine strain selection, and patient care (see box on the Sentinel Provider network).
2. If you are a primary care provider or are in a specialty that treats influenza patients, plan for surge capacity in your own practice to meet the substantial increase in the demand for health care services that will occur in a pandemic,

OR

If you are in a specialty that treats patients with chronic diseases, provide management of influenza for these patients to reduce the burden on primary care providers and ensure that the specialized needs of your patients are not overlooked in care environments stretched to accommodate higher than normal volumes,

OR

If you are in a specialty that will likely experience a decrease in volume during a pandemic, support the surge capacity plans of other providers and your community by offering your services and those of your staff for phone triage, staffing of temporary facilities, etc.

Our model for handling the increased demand for outpatient care during a pandemic can be briefly described as follows:

- ❑ Outpatient providers who can will increase the number of staff fielding phone calls. As many patients as possible will be provided with phone support in caring for their loved ones at home.
- ❑ Information on how to care for a patient at home will be provided via continuous television broadcasts, the internet, and print materials.
- ❑ Patients being managed at home that need support services will be enrolled in the public health Home Patient Care Management system.
- ❑ Patients that need to be seen will visit their own physicians, who will have modified patient flow patterns to segregate flu patients and will have instituted procedures to limit transmission.

Planning Your Surge Capacity

As discussed in more detail in the Integrated Surge Capacity Plan in the Appendix, three types of resources are necessary in order to implement surge capacity: Physical facilities and equipment, personnel, and training. As you think about how you can increase your capacity during an influenza pandemic, you should address each of these types of resources.

Surge capacity planning for **physical facilities and equipment** involves identifying how you can modify patient flow or use space differently to increase capacity. This may include converting non-patient care space for patient care in an emergency. It also involves evaluating equipment and supply needs and increasing inventory or establishing stockpiles for critical items.

In a health emergency that affects only a limited geographic area (e.g., explosion, natural disaster, or localized bioterrorist attack), health care **personnel** can be moved to the affected area from other areas of the state, and even from other parts of the country. Planning to accomplish this movement of personnel efficiently is a key component of our emergency staffing plan. However, in a pandemic, the increased demand for health care personnel will be universal, and each community will have to manage with the personnel resources it can muster from within its own borders.

In the 8 to 12 weeks that the first wave of an influenza pandemic is expected to last, the demand for some health care services will likely decrease. Elective procedures will not take place, and patients will likely not seek specialist care for non-urgent conditions. Health care personnel involved in these areas of reduced demand can be reassigned to assist with the care of flu patients.

Retired staff may be asked to return to work in some capacity. Clinical staff who normally work in an administrative capacity may also be able to assist in the care of flu patients.

Part of your planning for a pandemic should be to think about how you can increase your staff in these ways, how you might best use staff in areas outside of their primary expertise, and how you might use retired staff whose skills may have gotten a little rusty.

Training is the third resource required in creating health care surge capacity. In the case of outpatient care in an influenza pandemic, this training will need to be focused on providing refresher courses for retired health care personnel, and influenza-focused primary care refreshers for personnel normally working in specialty care or administrative areas. The GDPH will be making this type of training available.

Coordination of Medical Resources

In a pandemic, the expected demand on the healthcare system will challenge even the most prepared facilities, and will likely overwhelm the medical care system in some areas. It will be the job of public health to coordinate resources in short supply, and facilitate the deployment of resources from federal and state stockpiles.

GDPH has been working for four years with the Georgia Hospital Association (GHA) on hospital surge capacity planning. A statewide Mutual Aid Group that includes all hospitals in the state, and is coordinated by GHA, has been planning and developing systems of cooperation to be used in any emergency that puts unusual demands on the healthcare system. Discussion at meetings of the Mutual Aid Group led to the designation of thirteen Regional Coordinating Hospitals who have volunteered to assist with the coordination of resources and movement of patients in an emergency. The overview of Georgia's Statewide Integrated Surge Capacity Plan in Appendix A includes an Emergency Response Model that elaborates on the role of the Regional Coordinating Hospitals.

Individual providers can help to develop plans for their community by participating in the Health Care Task Force of your County Pandemic Influenza Planning Committee. You can get more information on the specific plans for your community by contacting your local hospital's emergency preparedness coordinator, your county health department or your district public health office. It is especially important that you know how important information will be communicated to providers during a pandemic, and how you can communicate your issues and resource needs to the emergency medical command structure.

Planning Steps:

We are asking every outpatient provider in the state to develop a pandemic flu plan. Planning steps vary somewhat depending on whether you are a primary care provider or are in a specialty that treats influenza patients (e.g., infectious diseases or pulmonology), or whether you are in a specialty that will likely experience a decrease in volume during a pandemic.

Primary Care and Specialties that treat influenza patients:

- 1) Estimate the increase in demand. (An Excel worksheet is provided that will automatically calculate the demand over an 8 week pandemic once you enter the number of active patients in your practice. The case fatality rate, a projected admission rate, and a projected ratio of outpatient visits to the number sick is provided for each Pandemic Severity.)
- 2) Develop a staffing plan that includes:
 - a) Monitoring of staff for signs of illness and assigning staff with minor symptoms to areas that do not involve contact with patients who may not have the pandemic strain.
 - b) Contacting retired staff in advance to determine their willingness to assist in a pandemic and helping them to obtain refresher training.
 - c) Asking specialists and their staffs to assist in treating flu patients during a pandemic.
- 3) Develop a triage/patient flow plan that includes:
 - a) Pre-screening patients before an appointment is given to reduce visits by the “worried well”, reducing their exposure to flu patients and the demand for office visits. Providing some basic education and referral to additional sources of information will help to minimize their seeking care elsewhere (e.g., the emergency room).
 - b) Triage incoming patients at the entrance to your office and separating patients with respiratory symptoms from other patients (e.g., separate waiting areas). You may also want to consider the use of guest pagers to allow patients to wait in their cars (weather permitting).
 - c) Offering a mask to patients who are coughing or sneezing.
 - d) Planning how to use non-patient care space.

Specialties that treat patients with chronic diseases:

- 1) Estimate the increase in demand. (An Excel worksheet is provided that will automatically calculate the demand over an 8 week pandemic once you enter the number of active patients in your practice. The case fatality rate, a projected admission rate, and a projected ratio of outpatient visits to the number sick is provided for each Pandemic Severity. These projections are for the general population, not for individuals with chronic diseases, so you may want to modify them somewhat.)
- 2) Develop a staffing plan that includes:
 - a) Monitoring of staff for signs of illness and assigning staff with minor symptoms to areas that do not involve contact with patients who may not have the pandemic strain,
 - b) Contacting retired staff in advance to determine their willingness to assist in a pandemic and helping them to obtain refresher training,
 - c) Asking other specialists and their staffs to assist in treating flu patients during a pandemic.
- 3) Develop a triage/patient flow plan that includes:
 - a) Ongoing management of patients with chronic conditions, including influenza care (coordinate in advance with their primary care providers),
 - b) Pre-screening patients before an appointment is given to reduce visits by the “worried well”, reducing their exposure to flu patients and the demand for office visits. Providing some basic education and referral to additional sources of information will help to minimize their seeking care elsewhere (e.g., their primary care physician or the emergency room).
 - c) Triage incoming patients at the entrance to your office and separating patients with respiratory symptoms from other patients (e.g., separate waiting areas). You may also want to consider the use of guest pagers to allow patients to wait in their cars (weather permitting).
 - d) Offering a mask to patients who are coughing or sneezing.
 - e) Planning how you might use non-patient care space.

Specialties that will likely experience a decrease in volume during a pandemic:

- 1) Estimate the effect of a pandemic on demand.
- 2) Develop a staffing plan that includes:
 - a) Estimating the effect of any decrease in demand on your staffing needs.
 - b) Monitoring of staff for signs of illness and assigning staff with minor symptoms to areas that do not involve contact with patients who may not have the pandemic strain.
 - c) Identifying staff that are willing to support the community response by assisting primary care providers or by working at temporary facilities.
 - d) Contacting retired staff in advance to determine their willingness to assist in a pandemic and helping them to obtain refresher training.
- 3) Develop a triage/patient flow plan that includes:
 - a) Pre-screening patients before appointments to reduce visits by patients with symptoms of influenza like illness.
 - b) Triage incoming patients at the entrance to your office and separating patients with respiratory

symptoms from other patients (e.g., separate waiting areas). You may also want to consider the use of guest pagers to allow patients to wait in their cars (weather permitting).

- c) Offering a mask to patients who are coughing or sneezing.
- d) Planning how you might use non-patient care space.

Ideally, all health care providers in a community will work together on this planning. Once you have estimated your increased demand, and developed staffing and triage plans, you will be able to assess, as a community, how well you can meet the demand for the various pandemic scenarios. This will help public health officials plan for temporary capacity during a pandemic and identify community-wide and statewide resource needs.

The Centers for Disease Control and Prevention (CDC) have developed a Medical Offices and Clinics Pandemic Influenza Planning Checklist which you may find useful as an adjunct to this planning kit. It is reproduced on page 18 of this kit. You can check for the most up-to-date version at www.pandemicflu.gov/plan/medical.html.

Projections Spreadsheet for Outpatient Providers (An electronic version of this excel file can be downloaded at <http://www.health.state.ga.us/pandemicflu/index.asp>.)

Projected Effect of an Influenza Pandemic on Your Practice								
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> Fill in the best estimate you have of the number of active patients in your panel. The rest of the calculations will be done for you. You can test assumptions that differ from CDC's by changing the numbers in the green boxes. </div>		Total number of your patients who will get sick assuming an illness rate of		Pandemic Severity	Case Fatality Rate	Projected Admissions Rate	Projected Ratio OP Visits/Sick	
				1	(up to) 0.1%	0.5%	0.4	
				2	0.1 - < 0.5%	1.0%	0.76	
				3	0.5 - < 1.0%	3.0%	1.8	
				4	1.0 - < 2.0%	5.0%	2.5	
				5	> 2%	7.0%	3.8	
	Active Patients	30%						
	1,000	300						
Distribution over an 8 week wave (CDC projection) for a pandemic								
Week	1	2	3	4	5	6	7	8
Percent of the total	6%	10%	15%	19%	19%	15%	10%	6%
Number who will get sick								
Assuming the illness rate in the blue box above	18	30	45	57	57	45	30	18
Number of outpatient visits								
Assuming 3.8 ratio of visits : number sick (Not all of the sick will seek health care, but those that do may have more than one visit.)	68	114	171	217	217	171	114	68
Number of hospitalizations								
Assuming 7% of those who get sick will require hospitalization	1	2	3	4	4	3	2	1
Number who will die								
Assuming 2% of those who get sick will die	0	1	1	1	1	1	1	0
<small>CDC assumes a 30% illness rate for all pandemic severities. The case fatality rate varies by Pandemic Severity Index (PSI) as shown in the box above. The projected admissions rate and the projected ratio of outpatient visits to the number sick were derived from the default data in CDC's FluAid 2.0.</small>								

Outpatient Provider Projections
1/18/2009

References by Topic

General avian/pandemic influenza information

www.health.state.ga.us/pandemicflu
www.health.state.ga.us/epi/flu/whatyouknow.asp
www.health.state.ga.us/epi/flu/recommendations.asp
www.health.state.ga.us/epi/flu/flu-diabetes.asp
www.pandemicflu.gov
www.hhs.gov/flu/
www.dhhs.gov/nvpo/pandemics/
www.cdc.gov/flu/
www.cdc.gov/flu/avian/
www.cdc.gov/flu/avian/gen-info/pandemics.htm
www.who.int/topics/influenza/en/
www.who.int/csr/resources/publications/influenza/WHO_CDS_CSR_GIP_2005_5

Plans and Planning

World Health Organization (WHO), Responding to the Avian Influenza Pandemic Threat: Recommended Strategic Actions, 2005. www.who.int/csr/resources/publications/influenza/WHO_CDS_CSR_GIP_05_8-EN.pdf
www.cdc.gov/flu/pandemic/healthprofessional.htm
www.pandemicflu.gov/plan/medical.html
Public Health Guidance Supplements to the HHS Pandemic Influenza Plan:
Surveillance: www.hhs.gov/pandemicflu/plan/pdf/S01.pdf
Laboratory: www.hhs.gov/pandemicflu/plan/pdf/S02.pdf
Healthcare Planning: www.hhs.gov/pandemicflu/plan/pdf/S03.pdf
Infection Control: www.hhs.gov/pandemicflu/plan/pdf/S04.pdf
Clinical Guidelines: www.hhs.gov/pandemicflu/plan/pdf/S05.pdf
Vaccine Distribution and Use: www.hhs.gov/pandemicflu/plan/pdf/S06.pdf
Antiviral Drug Distribution and Use: www.hhs.gov/pandemicflu/plan/pdf/S07.pdf
Community Disease Control and Prevention: www.hhs.gov/pandemicflu/plan/pdf/S08.pdf
Managing Travel-Related Risk of Transmission: www.hhs.gov/pandemicflu/plan/pdf/S09.pdf
Public Health Communications: www.hhs.gov/pandemicflu/plan/pdf/S10.pdf
Workforce Support: www.hhs.gov/pandemicflu/plan/pdf/S11.pdf

Clinical Management

www.who.int/csr/disease/avian_influenza/guidelines/pharmamanagement/en/index.html WHO Rapid Advice Guidelines on pharmacological management of humans infected with avian influenza A (H5N1) virus

Vaccines and Antivirals

www.who.int/csr/disease/avian_influenza/guidelinestopics/en/index5.html
www.pandemicflu.gov/vaccine/index.html
Joint working group of the Advisory Committee on Immunization Practices (ACIP) and the National Vaccine Advisory Committee (NVAC) regarding priorities for vaccine and anti-viral distribution during a pandemic when these resources are in short supply can be found at NVAC/ACIP Recommendations on Use of Vaccines and NVAC Recommendations on Pandemic Antiviral Drug Use.

Infection Control

www.hhs.gov/pandemicflu/plan/#part2 Interim Guidance on Planning for the Use of Surgical Masks and Respirators in Health Care Settings during an Influenza Pandemic, augments and supersedes recommendations provided in Part 2 of the HHS Pandemic Influenza Plan
www.cdc.gov/flu/professionals/infectioncontrol/ Infection control recommendations related to seasonal influenza
www.cdc.gov/flu/avian/professional/infect-control.htm Infection control recommendations related to avian influenza A (H5N1)
www.cdc.gov/flu/professionals/infectioncontrol/mask-guidance.htm The use of surgical masks by hospitalized patients and other symptomatic persons
http://www.who.int/csr/disease/avian_influenza/guidelines/EPR_AM_final.pdf World Health Organization (WHO), Infection Control Recommendations for avian influenza in health-care facilities, 2006

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