

**Pandemic Influenza Preparedness and Response
Standard Operating Plan
Georgia Department of Human Resources, Division of Public Health**

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I. INTRODUCTION

A. Background

Pandemic influenza viruses are unique in their ability to cause infection in all age groups on a global scale. The importance of influenza viruses as biological threats is due to a number of factors, including the high transmissibility, the vast reservoir of novel variants (primarily aquatic birds), the unique properties of the viral genome, and their ability to cause severe disease and death. The infamous “Spanish flu” of 1918-19 was responsible for more than 40 million deaths worldwide, especially among young adults. Mortality rates associated with the more recent pandemics of 1957 (A/Asia [H2N2]) and 1968 (A/Hong Kong [H3N2]) were reduced, in part, by antibiotic therapy for secondary bacterial infections and more aggressive supportive care. However, both of these later pandemics were associated with high rates of morbidity and social disruption.

Pandemic influenza is a unique public health emergency and community disaster. Pandemic influenza is considered to be a relatively high probability event, even inevitable by many experts, yet no one knows when the next pandemic will occur; there may be very little warning. Outbreaks are expected to occur simultaneously throughout much of the U.S., preventing relocation of human and material resources. The effect of influenza on individual communities will be relatively prolonged – six to eight weeks – when compared to the minutes-to-hours observed in most other natural disasters.

The impact of the next pandemic could have a devastating effect on the health and well being of the American public. The Centers for Disease Control and Prevention (CDC) estimates that, in the United States alone, up to 200 million people will be infected, between 18 and 42 million people will require outpatient care, between 314,000 and 734,000 will be hospitalized, and between 89,000 and 207,000 will die. Effective preventive and therapeutic measures – including vaccines and antiviral agents – will likely be delayed and in short supply, as may some antibiotics to treat secondary infections. Health-care workers and other first responders will likely be at even higher risk of exposure and illness than the general population, further impeding the care of victims. Widespread illness in the community will also increase the likelihood of sudden and potentially significant shortages of personnel who provide other essential community services.

B. Purpose

The Influenza Pandemic Preparedness Standard Operating Plan (SOP) for the State of Georgia was written to address the threat of a possible future influenza pandemic affecting Georgia. This SOP represents an initial threat analysis and a broad series of guidelines for action in case the influenza pandemic threat is realized. Guidelines are divided into 6 phases, as designated by the World Health Organization (WHO) in Table 1.

In the face of a pandemic threat, or ongoing influenza pandemic, the need to vaccinate millions of persons as rapidly and safely as possible will pose a potentially overwhelming and

unworkable burden on the usual sites for annual influenza vaccination. As a result, responsible agencies must plan for the acquisition and distribution of additional resources. Efficient and targeted distribution of vaccine or antiviral medication to user sites is particularly important, especially in the event of a vaccine shortage.

This SOP is an annex to the Georgia Department of Human Resources, Division of Public Health (DPH) Emergency Operations Plan (PH EOP). Areas addressed in other plans (e.g. SNS, surge capacity, isolation and quarantine) may be relevant during a pandemic, but will not be addressed specifically in this plan. The following will address issues specific to pandemic influenza that may not be addressed in the PH EOP.

II. STATUTORY AUTHORITY
See PH EOP (VII.)

III. SITUATION AND ASSUMPTIONS

Situation: DPH is responding to an influenza pandemic that has the potential of overwhelming local resources. Activities will be directed as outlined in the Georgia PH EOP.

Estimated morbidity and mortality during a pandemic in the U.S. and Georgia (from CDC)

	U.S.	Georgia*
Infected	200 million	Up to 6 million
Clinically ill	20-47 million	0.6-1.14 million
Outpatient care	18-42 million	540,000-1.26 million
Hospitalization	314,000-734,000	9,420-21,990
Deaths	89,000-207,000	2,670-6,210

* Assuming Georgia makes up approximately 3% of the U.S. population

Assumptions:

An influenza pandemic will likely pose a significant threat to human infrastructure responsible for critical community services (in health and non-health sectors) due to widespread absenteeism. Effective preventive measures and therapeutic measures (vaccines and antiviral medications) will likely be delayed and in short supply. The annual influenza vaccination program, supplemented by pneumococcal vaccination when indicated, will remain a cornerstone of prevention. Critical factors that will affect the current system of vaccine distribution in Georgia include the following:

- The time period for the identification of vaccine strains, production, and distribution of vaccine to prevent influenza will be greatly shortened. This will place considerable burdens on all existing processes and procedures.
- Because the time frames for planned production, distribution, and administration may be shortened, significant shortages and delays in vaccine availability may arise. In view of the

likely vaccine shortage, CDC, in conjunction with various advisory committees and the public, is formulating draft recommendations for a rank-order list of high priority target groups for vaccination. Georgia will follow those recommendations.

- In all likelihood, the target population for vaccination coverage will be extended well beyond and may not include the typical high-risk populations, with the eventual goal of vaccinating the entire population.
- The influenza virus encountered during a pandemic will represent a new subtype, with new hemagglutinin (HA) and/or neuraminidase (NA) antigens. Thus, to maximize vaccine efficacy a second dose of vaccine, approximately 30 days after the first dose, or as determined by health officials, will be necessary.

There may be critical shortages of health care resources, such as staffed hospital beds, mechanical ventilators, morgue capacity, and temporary holding sites with refrigeration for storage of bodies and other resources.

The federal government is responsible for nationwide coordination of the pandemic influenza response. Specific areas of responsibility include the following:

- Surveillance in the U.S. and globally
- Epidemiologic investigation in the U.S. and globally
- Development and use of diagnostic laboratory tests and reagents
- Development of reference strains for vaccines
- Vaccine evaluation and licensure
- Determination of populations at highest risk and strategies for vaccination and antiviral use
- Assessment of measures to decrease transmission (e.g., travel restrictions, isolation, and quarantine)
- Deployment of federally purchased vaccine
- Deployment of antiviral agents that may be available as part of the Strategic National Stockpile
- Evaluation of the efficacy of response measures
- Evaluation of vaccine safety
- Deployment of the Commissioned Corps Readiness Force (CCRF) and Epidemic Intelligence Service (EIS) officers
- Medical and public health communications
- Activation and deployment of additional regional, federal and Department of Defense resources

Decisions regarding the role of the federal government remain to be made in 2 critical areas:

- Purchase and distribution of vaccine
- Stockpiling of antivirals

The federal government is currently pursuing mechanisms by which influenza vaccine can be made available more rapidly and in larger quantities prior to and during the next influenza pandemic.

Based on guidelines issued by the CDC it is understood that, in the event of an influenza pandemic, the total vaccine supply may be under the control of the federal government. This suggests Georgia will be assigned an “allotment” of vaccine and that all distribution efforts will be based on that allocation.

The federal government has limited resources allocated for state and local plan implementation, and therefore the state will be expected to provide supplementary resources in the event of a pandemic, which may include the redirection of personnel and financial resources from other programs.

IV. CONCEPT OF OPERATIONS

A. Planning and Coordination / Establish Command, Control, and Management Procedures

1. Background

During a public health emergency in the State of Georgia, public health activities will be coordinated as outlined in the PH EOP. Briefly, the plan provides guidance to DPH in its role as the lead in Office of Homeland Security-Georgia Emergency Management Agency (OHS-GEMA) GEMA Emergency Support Function (ESF) 8 (as designated by DHR) and its role supporting DHR in OHS-GEMA ESF 6.

2. Interpandemic period, phase 1

- Establish a state pandemic planning executive committee.
- Advocate the importance of pandemic planning to relevant decision-makers.
- Periodically update plan in close collaboration with relevant partners, including those outside the health sector, and with reference to current WHO and CDC guidelines.
- Ensure implementation of planning and preparedness activities at all levels of public authorities.
- Exercise influenza pandemic plans and use the results to improve and refine plan and preparedness.
- Identify crucial gaps in state and/or local infrastructure and resources, laws and/or statutes, which, if not corrected in advance, may interfere with an effective response.
- Develop and maintain lists, including contact information, of partners, resources, and facilities.
- Identify, brief regularly and train key personnel to be mobilized in case of the emergence of a new strain of influenza virus.
- Coordinate planning with bordering jurisdictions, including counties, states, and unique populations (such as Native American nations, new immigrant populations, and certain religious enclaves).
- Consider the development of a state stockpile (antivirals, personal protective equipment, vaccines, laboratory diagnostics, other technical support) for rapid deployment when needed.
- Ensure procedures for rapid sharing of specimens or isolates for virus characterization and development of diagnostics and vaccine.
- Develop surge capacity contingency plans for the internal management of state resources and essential workers during a pandemic.

3. Interpandemic period, phase 2, if Georgia is affected

- Convene executive committee and meet with partners and stakeholders to review plan.

4. Pandemic alert period, phase 3

- Convene executive committee and meet with partners and stakeholders to review plan.

- 5. Pandemic alert period, phase 4
 - Convene executive committee and meet with partners and stakeholders to review plan.
- 6. Pandemic alert period, phase 5
 - Convene executive committee and meet with partners and stakeholders to review plan.
- 7. Pandemic period, phase 6
 - Convene executive committee and meet with partners and stakeholders to activate plan.
 - Monitor staffing needs.
 - Document expenses of influenza pandemic response.
- 8. Postpandemic period
 - Convene executive committee and meet with partners and stakeholders to review activities.

B. Situation Monitoring and Assessment / Surveillance (ICS-Operations)

1. Background

Influenza surveillance in Georgia includes 6 major components:

- Surveillance for influenza-like illness: Sentinel health-care providers from private practices, clinics, hospitals, and university health services report the number of patient visits for influenza-like illness (ILI: defined as fever and sore throat or cough) by age group and the total number of patient visits each week. During the 2004-2005 season, 75 sentinel providers enrolled and approximately half reported regularly (≥ 26 weeks of the year). These providers also send specimens from patients with ILI to the state public health for viral isolation and typing. A sample of these isolates are sent to CDC for further strain characterization.
- Virologic surveillance: Georgia Public Health Laboratory (GPHL) is one of the U.S. World Health Organization collaborating laboratories that report the number of clinical specimens tested for influenza and the number of positive results by virus type and subtype. In addition, 3 hospital laboratories that are part of the National Respiratory and Enteric Viruses Surveillance System (NREVSS) also report the number of clinical specimens tested for influenza and the number of positive results by virus type and subtype. An additional 11 hospital laboratories report the number of clinical specimens tested for Respiratory Syncytial Virus (RSV) and the number of positive results.
- Surveillance for influenza and pneumonia-associated deaths: The Vital Statistics Offices of Atlanta and Savannah report the percentage of total deaths caused by influenza and pneumonia each week.
- Influenza-associated pediatric and adult hospitalizations: The Emerging Infections Program (EIP) will begin monitoring influenza-associated hospitalizations among children and adults in 7 hospitals in Health District 3 (Metropolitan Atlanta).
- Influenza-associated pediatric deaths: An influenza-associated death in a child <18 years of age is reportable in Georgia. Deaths are reported through the State Electronic Notifiable Disease Surveillance System (SENDSS: <https://sendss.state.ga.us>).
- State influenza activity level: Each week, the state epidemiologist or designee reports influenza activity as “widespread”, “regional”, “local”, “sporadic”, or “none” based on the surveillance systems described above and additional existing bioterrorism or syndromic surveillance systems available at the time.

In addition, we may receive passive reports from long-term care facilities, correctional facilities, childcare centers, and schools regarding influenza-associated outbreaks throughout the year.

Georgia also has a syndromic surveillance system that includes identification of influenza-like illness. This system includes:

- Hospital Emergency Departments: Several hospitals both in the metro-Atlanta area and outside transmit data (including age, sex, chief complaint) to SENDSS via secure FTP. Chief complaints are categorized into syndromes (e.g. gastrointestinal, rash, respiratory) and analyzed using the CDC Early Aberration Reporting System (EARS).

- Emergency Medical Services (EMS): Data from EMS calls are collected through “First Watch,” a web-based surveillance system.
- Schools Absenteeism: School enrollment and absenteeism data from one metro-Atlanta county school system are collected and analyzed on a weekly basis.
- Over-the-counter drug sales: Pharmacy data are collected through the University of Pittsburgh Real-time Outbreak and Disease Surveillance (RODS).
- Pneumonia surveillance: EIP conducts unexplained pneumonia surveillance, including information on health-care workers and international travelers.

a) **Interpandemic period, phase 1**

Surveillance is key to recognizing a new strain of influenza at its source, determining its potential for transmission, and tracking its spread.

DPH (unless otherwise noted, DPH, Epidemiology Branch will coordinate activities)

Current activities

Surveillance for ILI:

- Recruit sentinel providers through advertisements among the state professional organizations and through the district public health liaison program.
- Encourage providers to send specimens collected from patients with ILI at the beginning, middle, and end of the season to GPHL for viral culture.
- Monitor sentinel provider data weekly for completeness and/or errors.
- Share sentinel provider data with District health offices.

Virologic Surveillance:

- Maintain strong working relationship with GPHL.
- Enroll and maintain hospital laboratories reporting to NREVSS.

Surveillance for influenza and pneumonia-associated deaths:

- Office of Vital Records in Fulton and Chatham Counties report to CDC weekly.

Influenza-associated Pediatric and Adult Hospitalizations

- EIP reports data weekly to CDC.
- Monthly reports are sent to participating EIP sites from CDC.

Influenza-associated Pediatric Deaths

- Maintain communication with Georgia Bureau of Investigation, Medical Examiner's Office
- Provide specimen collection materials and testing at GPHL.
- Providers and District health offices report cases via SENDSS.
- Reports cases to CDC via Secure Data Network (SDN).

State influenza activity level:

- Report weekly influenza activity level to SENDSS by noon each Tuesday (during influenza season: week 40 through week 20).

Syndromic Surveillance :

- Recruit districts having cities meeting population criteria and within districts, recruit emergency departments meeting volume and catchment criteria.
- Monitor syndromic surveillance data on daily basis for indications of possible influenza activity.

- Share data with non-participating districts and CDC.

Surveillance Communication

- Notify providers of the start of the influenza season in the state (e.g. broadcast fax, email).
- Send influenza report to District health offices, Sentinel providers, and other interested parties (weekly during influenza season and as often as necessary after influenza season).
- Post updated influenza surveillance data on the Epidemiology Branch website.
- Advertise the availability of influenza surveillance information on the Epidemiology Branch website.
- Write annual summary in Georgia Epidemiology Report (GER).

The following are proposed improvements to routine influenza surveillance in Georgia, to make pandemic preparedness more feasible and effective.

Proposed improvements:

Sentinel ILI surveillance:

- Ensure that at least one sentinel provider for every 250,000 population reports regularly during the influenza season. Regular reporting indicates a weekly report more than half the weeks of the season/year.
- Improve the geographic representation of the sentinel provider sites.
- Encourage all providers to report via the internet.
- Make data available to Sentinel Providers and Districts in real-time in SENDSS

Virologic Surveillance:

- Evaluate private laboratory capacity to test for influenza. Based on findings, solicit laboratories to submit influenza isolates to the GPHL for subtyping and ensure that the total isolates submitted are representative of the state's population.

Surveillance for influenza and pneumonia-associated deaths:

- Share weekly influenza report with Vital Records

Influenza-associated Pediatric and Adult Hospitalizations:

- EIP provide DPH with data
- Analyze Georgia data
- Share influenza weekly report with EIP

Influenza-associated Pediatric Deaths:

- Place influenza kit in each medical examiner office.

State influenza activity level:

- Incorporate syndromic surveillance into level descriptions

Other surveillance systems:

- Expand syndromic surveillance activities to other districts using emergency department visit data as well as other data sources that possibility indicate influenza activities .
- Develop a hospital-based surveillance system for ILI.

Communication:

- Develop communication links between the State Public Health Veterinarian, the State Veterinarian, and the University of Georgia Veterinary Laboratory regarding animal and human influenza surveillance.
- Work with the district health offices to establish and maintain contact with the state's military hospitals. Standard, routine reporting systems should be established between these facilities and DPH.
- Request that the Office of Vital Records generate a dataset containing deaths coded as attributable to pneumonia and influenza (ICD 9 codes 480-487).
- As outlined in the PH EOP Airport Incident and the Isolation and Quarantine (under development) annexes, establish contact with quarantine stations at international airports and shipping ports in Georgia to develop plans for how to monitor for the possible importation of ILI in the event of the identification of a novel strain by educating those disembarking in Georgia. CDC Division of Global Migration and Quarantine would be the lead and is responsible for notifying the state of an ill passenger on flights coming into the State from overseas, other states and intra-state.
- Initiate contact with GHA, OHS-GEMA, and surrounding states.

GPHL

Current activities:

- GPHL is able to isolate and subtype influenza viruses year round. Testing capabilities include: direct fluorescent antibody (DFA), viral culture, and polymerase chain reaction (PCR). Influenza DFA and viral culture results are reported to CDC weekly via Public Health Laboratory Information System (PHLIS). In addition, GPHL reports other respiratory virus DFA and culture results weekly to CDC via NREVSS.
- Provides DFA, viral culture, and PCR free of charge to sentinel providers and District health offices.
- GPHL is currently conducting validation testing on the PCR H5 primer available from CDC. This testing is expected to take several months.

Proposed improvements:

- Provide data to CDC by following Tuesday

District

Current activities:

- Recruit sentinel providers
- Recruit school systems and emergency departments for syndromic surveillance.
- Follow-up on unusual reports, non-reporters.

Proposed improvements:

- Ensure that at least one sentinel provider for every 250,000 population reports regularly during the influenza season. Regular reporting indicates a weekly report more than half the weeks of the season/year.
- Improve the geographic representation of the sentinel provider sites.
- Encourage all providers to report via the internet.

b) Interpandemic period, Phase 2

Departments of Agriculture are the lead in surveillance of animals. GDCPH, Epidemiology Branch is the lead in surveillance of humans, including poultry workers.

If animals in Georgia affected:

- Response plan to highly pathogenic avian influenza (HPAI) among poultry in Georgia will be addressed outside of this plan. In short, that plan will focus on depopulation and containment, personal protective equipment and minimizing occupational exposures, and developing memorandums of understanding (MOU) modeled after other states. Monitoring of exposed workers for illness like illness will also be an important component of the plan. The plan will involve input from Georgia's poultry industry.

If animals in U.S., but Georgia not affected:

DPH

Proposed improvements

- Maintain communication with Department of Agriculture and poultry industry representatives.

Plan

- Distribute information to public and providers.

District

Proposed improvements

- Maintain communication with poultry industry representatives

Plan

- Distribute information to public and providers.

If animals in another country, but U.S. not affected

DPH

Proposed improvements

- Maintain communication with Department of Agriculture and poultry industry representatives.

Plan

- Monitor travelers who have traveled to an affected country.
- Distribute information to public and providers.

District

Proposed improvements

- Maintain communication with poultry industry representatives.

Plan

- Monitor travelers returning from affected countries.
- Distribute information to public and providers.

c) **Pandemic alert period, phase 3**

DPH will continue its normal influenza surveillance activities. During the 2002-2003 season, sentinel providers were asked to begin reporting all year long. In the past, sentinel providers had only reported during the influenza season, October through May. However, only a limited number of sentinel providers continued to report during the summer months. GDPH will continue to request that all sentinel providers report year round.

DPH

Current activities-Surveillance:

- Continue interpandemic influenza surveillance activities and syndromic surveillance
- Enhanced surveillance for human cases who present with clinical illness and who recently traveled to an affected area.
- Request appropriate specimens to be tested for influenza at GPHL.
- Notify hospital laboratories not to attempt virus isolation from possible patients to prevent culturing of highly pathogenic avian influenza (as occurred during 2004 H5N1 influenza virus outbreak in Asia).
- GDPH will notify laboratory directors, infection control practitioners, physicians, emergency rooms, and urgent care centers of the alert and request that patients presenting with ILI (and meeting other criteria specified at the time) submit a specimen for influenza testing. A split specimen should be obtained; one specimen will be submitted to the usual laboratory and one submitted directly to GPHL. The District Health Office and Epidemiology Branch will coordinate assistance for specimen transport, as appropriate. Each District Health Office should maintain specimen transport materials. If materials are used, replacement materials should be ordered through the Epidemiology Branch. For transport of specimens, the Epidemiology Branch FedEx account can be used. The Epidemiology Branch should be contacted for the appropriate account number.

Proposed improvements-Surveillance:

- Recruit additional sentinel providers to reach one regularly reporting provider for every 250,000 persons. DPH will work with health districts to develop a list of additional sentinel providers to begin reporting if enhanced sentinel ILI surveillance is needed.
- Recruit additional districts with cities having populations of over 100,000. Within those districts, recruit additional emergency departments with annual visits of over 17,250 as well as other data sources.
- Implement CDC recommendations as they become available
- As outlined in the PH EOP Airport Incident annex and the Isolation and Quarantine annex (under development), GDPH will partner with quarantine stations at international airports and shipping ports to facilitate detection of novel virus importation by people arriving from countries where the novel virus is known to be circulating by educating those disembarking in Georgia. CDC has the lead responsibility at these quarantine stations.

- If the novel strain is identified in North America, the appropriate surveillance partners and stakeholders will meet within two weeks of the alert to review major elements of enhanced surveillance activities and will modify and update surveillance as needed. There will be weekly meetings (in person or conference call) arranged at the time. Weekly meetings will continue until the State Health Officer organizes more frequent meetings or discontinues meetings.

Current activities-Communication

- Maintain regular communication with public health partners and external agencies
- Post updates to Epidemiology Branch website
- Continue to ensure District Health Offices are developing and maintaining a provider database for providers in their districts. This will allow for the rapid dissemination of updated information to providers.

Proposed improvements-Communication

- Develop DPH blastfax capabilities

GPHL

Current activities:

- Provide testing for potential cases with novel influenza virus
- Share results with DPH

Proposed improvements:

- Obtain reagents from CDC to detect and identify novel strain
- Ensure testing capabilities are available in regional laboratories
- Establish mechanism to report results from experimental testing (e.g. PCR)

District

Current activities

- Forward new information and updated recommendations to providers
- Maintain provider database
- Communicate with DPH if possible cases are identified
- Obtain patient information and exposure of possible cases
- Coordinate testing with DPH and GPHL
- Report results to provider

Proposed improvements

- Each district should have hospitals, private providers (including various practice types), and university health services on reserve for the purposes of enhanced surveillance.
- Maintain a current influenza kit for testing.

Plan

- Ask additional sentinel providers to report.
- Ensure presence of at least one current influenza kit for testing.

d) **Pandemic alert period, phase 4**

The goal of pandemic alert surveillance is to identify the novel influenza virus circulating in Georgia. DPH will continue statewide influenza surveillance as in previous phases, as well as monitoring of CDC and WHO national and global influenza activity reports, with the following modifications:

DPH

Proposed improvements:

- Work with federal Department of Defense (DoD) installations in Georgia to monitor ILI.
- Work with CDC BioSense in areas of Department of Defense outpatient and Veteran Administration facilities
- Maintain communication with quarantine officers at ports of entry.
- Add enhanced influenza surveillance screens into SENDSS.
- Maintain contact list of laboratories.

Plan:

- Assess completeness and timeliness of reports from laboratories and sentinel providers
- Health Districts will be notified to activate the additional sentinel providers. Additionally, DPH will inform all sentinel providers of the need to increase specimen collection for detection of the novel virus. If necessary, DPH will distribute additional specimen collection kits to District Health Offices (or to local designees by the District) to facilitate sending specimens to GPHL.
- As traveling military personnel represent a potential introduction of influenza into Georgia, DPH will request reports of ILI from federal DoD facilities located in the state.
- DPH will continue to work with quarantine stations at airports and shipping ports to detect ILI cases arriving from other countries by educating those disembarking in Georgia .
- Investigate epidemiology of early cases imported into the country or early U.S. cases (use CDC case report form or develop one based on 2004 H5N1 influenza virus surveillance). DPH will meet with surveillance partners to increase the amount of patient demographic information collected, in order to identify groups at increased risk. An enhanced case report form will be distributed to aid in the collection of this information. Use SENDSS as web-based platform so that data is accessible real-time
- Notify commercial, hospital, and other laboratories of CDC testing recommendations (e.g. use of rapid tests).

GPHL

Proposed improvements:

- Ensure capacity within Decatur lab and regional labs.

- Consider the role of rapid tests.

Plan:

- Institute plan for increase in testing.
- Report test results to State Influenza Coordinator and CDC daily.

District

Proposed improvements:

- Maintain list of additional sentinel providers (with various geographic, demographic, and practice types represented) on-call for enhanced sentinel ILI surveillance, if necessary.
- Maintain list of health-care provider contacts.

Plan:

- Contact non-reporters.
- Activate additional sentinel providers.
- Communicate new information and updated recommendations to providers.
- Investigate epidemiology of early cases imported into the country or early U.S. cases.

e) **Pandemic alert period, phase 5**

DPH will continue its enhanced statewide influenza surveillance and monitoring of CDC and WHO reports of influenza activity. DPH will also continue requesting reports of ILI in travelers.

DPH

Proposed improvements:

- Investigate methods to enhance death surveillance.
- Investigate methods to enhance hospitalization surveillance
- Investigate work absenteeism screens in SENDSS

Plan:

- If needed, DPH will analyze inpatient information to determine which population groups are at greatest risk and provide the information to the CDC and to those determining priority groups for vaccine allocation when the supply is limited.
- Monitor health impacts including deaths and hospitalizations.
 - Enhance existing systems
- Monitor community impacts.
 - Assess absenteeism in key industries and sectors

GPHL

Proposed improvements:

- Find out if resources are available at GPHL.
- Find out if CDC will offer reagents for this testing.

Plan:

District

Proposed improvements:

- Recruit industries to participate in influenza surveillance during the interpandemic or to be on-call during a pandemic.

Plan:

- Identify key industries and sectors

f) **Pandemic period, phase 6**

The goal of pandemic influenza surveillance is to describe the epidemiology of pandemic influenza in Georgia to assist in developing preventive action recommendations, allocating medical resources, and responding to public questions and concerns. This goal will be difficult to achieve, as health care providers and the surveillance system will likely become overwhelmed. At this stage,

- DPH will continue its enhanced statewide surveillance activities and monitor CDC and WHO influenza activity reports.

DPH

Proposed improvements:

- Address quality of interpandemic surveillance

Plan:

- Assess quality of surveillance
- Make recommendations for improvement

C. Prevention and containment

1. Vaccine

a) Background

The yearly influenza vaccine is a trivalent vaccine that includes three strains of influenza. The virus strains to be included in the influenza vaccine are selected in the spring. Two types of influenza vaccine are currently available. One is the injectable inactivated influenza vaccine made by 3 manufactures for the U.S. market. This vaccine is available for those at high-risk of complications from influenza and their contacts, as well as healthy individuals who want to prevent influenza infection. The other is a live, attenuated influenza vaccine that is administered via nasal spray produced by one U.S. manufacturer. This vaccine is targeted for healthy persons 5-49 years old. Three manufacturers produce approximately 80 million doses of influenza vaccine for the U.S. market over a six to eight month production period, with the supply ready for distribution the summer before the influenza vaccination period of October through March. Except for children under 9 years of age receiving vaccine for the first time, effective immunization is generally achieved with a single dose of vaccine. Nationally, a large majority of the vaccine is administered by the private sector and is directed toward high-risk individuals as defined by the Advisory Committee on Immunization Practice (ACIP).

Much of the annual influenza vaccine is purchased and administered in the private sector in Georgia and throughout the U.S. Public Health influenza vaccine procurement in Georgia is done at the county/district level. The only influenza vaccine purchased by the state is for the Vaccines for Children (VFC) Program. In 2003 federal funding was made available for influenza vaccine purchase for VFC-eligible children for the first time. This influenza vaccine was then distributed to all VFC providers in Georgia (private physicians, Public Health Districts, federally-qualified health center, community health centers, and juvenile detention centers). The Georgia Immunization Program does purchase certain vaccines for specific child and adult populations outside of the VFC program. For example, the Immunization Program purchases pneumococcal vaccine and places it at the county health departments. Vaccine eligibility include: any adult ≥ 65 years of age, adults < 65 years with high-risk conditions, and children or adolescents ≥ 2 years of age with high-risk conditions. Please see the Georgia Immunization Program Manual.

Under current manufacturing procedures, it may take 6-8 months to make large amounts of vaccine available for distribution during a pandemic. It is likely that there will be a shortage of vaccine once it does become available. It is also possible that no vaccine will be available. More than likely, vaccine will not arrive at one time. Vaccine may be distributed in limited quantities over a period of time. This situation would be more similar to the vaccine shortage during 2004-2005. Some areas may not receive enough vaccine to warrant a mass vaccination clinic and may have to consider other mechanisms. In addition, vaccination programs may need to be sustained over several months, as opposed to a mass vaccination clinic run over a few days. Once vaccine is available, it will have to be distributed and administered as rapidly as possible.

In addition, immunologic responses following vaccination of serologically negative individuals is poor, so the emergence of a pandemic strain with new HA and/or NA antigens will likely require a second dose of vaccine 30 days later. Decisions regarding the degree of federal vaccine purchase in the event of an influenza pandemic have not been made. This plan will address different scenarios, including complete federal purchase and minimal federal purchase.

Due to the unique conditions associated with vaccine availability and allocation during pandemic influenza, the State of Georgia must develop a strategic plan for the management of vaccine delivery and administration during a pandemic. This plan must ensure that the distribution and allocation of available vaccine is completed in an organized and coordinated manner so as to maximize the public's health and safety. This plan is based on the Public Health EOP Standard Operating Guidelines for Mass Vaccination/Dispensing Clinic, which identifies guidelines for all levels of public health to request, receive, store, transport, distribute, dispense/administer pharmaceuticals, vaccines, and certain medical supplies in response to such an event. However, during a pandemic, there will most likely not be an adequate supply of vaccine. In this case, we will have to establish priority groups based on recommendations from CDC. Most likely, CDC will make recommendations for priority groups to receive vaccination. It will up be up to the State Health Officer with input from State and District-level staff to institute these recommendations in Georgia. If CDC does not make recommendations for priority groups for vaccination, ultimately the State Health Officer in consultation with Epidemiology, Immunization, Pharmacy, Nursing, Emergency Preparedness, and District Health Offices will make the recommendations. In either case, the State Health Officer may choose to form an ad hoc committee, including representation from State and District Public Health, Georgia Hospital Association (GHA), private health-care provider sector, and ethicists. Regardless of priority groups, the amount of influenza vaccine allocated to the state will be distributed to District Health Offices based on priority group population estimates, vaccine received, and estimated need. Educating the public on these priority groups will be key. Actual distribution activities cannot begin until the CDC, in cooperation with manufacturers, can offer an expected date for delivery vaccine. The Immunization Program will maintain a data management system for distribution and delivery of vaccine.

Consider the following as target groups for vaccination: (Currently awaiting federal guidelines)

b) Interpandemic period, phase 1

DPH

Current activities:

- State funds are used to purchase influenza vaccine for VFC-eligible children only. Vaccine is sent at no cost to public health clinics and private providers.
- No influenza vaccine is purchased by DPH for adults or non-VFC-eligible children.
- Most vaccine is purchased and distributed in the private sector.
- GRITS includes influenza vaccine.
- Public Health clinic information is posted on the Georgia Adult Immunization Coalition website (<http://www.gaic.org>) through the Georgia Medical Care Foundation. Representatives from the Immunization Program, Epidemiology Branch, and Office of Communications participate in this coalition.
- Vaccine recommendations are posted on the DPH website.
- Vaccine coverage estimates are derived from the Behavioral Risk Factor Surveillance System (BRFSS).

Proposed improvements:

- Enhance influenza vaccination coverage levels in traditional “high-risk” groups, particularly among those groups with low rates of coverage.
- Enhance pneumococcal vaccination coverage levels in traditional “high-risk” groups to reduce the incidence and severity of secondary bacterial pneumonia.
- Define vaccine priority groups, considering state-specific modifications.
- Determine size of priority groups and define responsibility for vaccinating groups. (For example, will hospitals be responsible for vaccinating their own staff and who will be responsible for vaccinating essential community workers?)
- Adapt mass vaccination plans for mass vaccination of general public.
- Ensure appropriate legal authorities are in place and ensure all participating parties are informed.
- Ensure that contingency plans are considered for emergency distribution of unlicensed vaccines using emergency investigational new drug (IND) provisions, including strict inventory control and record-keeping, in addition to completion of signed consent forms.
- Coordinate plans with bordering jurisdictions.
- Enhance use of GRITS for pandemic influenza vaccine.

Plan:

- Identify mechanism to track administration of second dose of vaccine. Consider using GRITS. Information collected should include name, date of birth, address, and telephone number.

District

Current activities:

- District Health Offices purchase adult and pediatric influenza vaccine directly from the manufacturer/distributor for distribution in public health clinics and on-site clinics.
- Public health clinics receive VFC influenza vaccine from the Immunization Program.

Proposed improvements:

- Enhance influenza vaccination coverage levels in traditional “high-risk” groups, particularly among those groups with low rates of coverage.
- Enhance pneumococcal vaccination coverage levels in traditional “high-risk” groups to reduce the incidence and severity of secondary bacterial pneumonia.
- Begin plans for vaccination clinics

c) Interpandemic period, phase 2 (if animals in Georgia are affected)

- See DPH/Department of Agriculture Avian Influenza Plan (under development)
- Offer human epidemic influenza vaccine to those persons who may be exposed to affected animals to reduce the chance of mixing of human and avian influenza viruses.

d) Pandemic alert period, phase 3

Plan:

- Meet with appropriate partners and stakeholders and review major elements of the vaccine distribution plan
- Work with District Health Offices and state professional organizations to educate healthcare providers and public.
- Modify the plan as needed.

e) Pandemic alert period, phase 4

Plan:

- Ensure that human resources and logistics are in place to begin vaccination.
- Coordinate activities with bordering jurisdictions.

f) Pandemic alert period, phase 5

Plan:

- Fully activate the vaccination program if vaccine is available.

g) Pandemic period, phase 6

Plan:

- Continue vaccination program as necessary.

h) Postpandemic period

Plan:

- Review vaccination program.

2. Antivirals

a) Background

While the primary focus of the state's plan is on the distribution of vaccine for the prevention of influenza, the CDC anticipates that a limited amount of antivirals for the prevention and treatment of the disease will be available. Estimates suggest that nationally, adequate antiviral stock will be available to treat three million people or to provide prophylaxis to 500,000 people each month. Similar to planning for vaccine distribution, the state will have to consider planning for different scenarios, including federal purchase of all antiviral supplies and minimal federal purchase of antivirals. In addition, a stockpile of antivirals to be included in the SNS is still under consideration by federal authorities. In addition to the anticipated limited supply, the administration of antivirals as either a prophylaxis or treatment regimen is rigorous, requiring 60 doses per month for prophylaxis or ten doses per month for treatment of illness. Therefore distribution and use of Georgia's allocation of any antivirals will be controlled by the state pharmacy. The CDC should identify priority groups who shall be eligible to receive these agents. If CDC does not make recommendations for priority groups for antivirals, ultimately the State Health Officer in consultation with Epidemiology, Immunization, Pharmacy, Nursing, and District Health Offices will make the recommendations. In general, use of antivirals shall be reserved for the highest priority groups, with consideration given to maintaining the integrity of the healthcare community and the persons responsible for the safety and security of the communities most affected by the pandemic. Regardless of priority groups, the amount of influenza antivirals allocated to the state will be distributed to District Health Offices based on population estimates.

Options for Antiviral Acquisition.

Option 1: Purchase a small stockpile at the state level

- Purchase a supply of a selected product to be stored in the state warehouse for distribution to facilities.
- Considerations:
 - Need money for purchase.
 - Potential of having unused product.

If the product chosen is purchased at a government rate, then the sale of the product is limited to those facilities/entities eligible to receive that same government rate. For example, if a **for profit** long-term-care facility needed the medication in our warehouse, then Public Health could not sell the product to the entity because the facility doesn't qualify for Public Health pricing. Public Health could distribute the medication to each client and bill the client as other public health clients are billed for services.

Option 2: Receive apportionment from CDC purchase

- If CDC is able to purchase antivirals (outside of the SNS), Georgia will receive an apportionment as calculated by CDC.
 -

Option 3: The Strategic National Stockpile (SNS)

- The U.S. has a limited supply of influenza antiviral medications stored in the SNS for emergency situations. As of the writing of this plan, CDC is currently attempting to increase this supply.

The following options will only be useful if the federal government does NOT recall all antivirals during a pandemic.

Option 4: Provide a recommendation to facilities (Long Term Care Facilities (LTCF), assisted living, hospitals, large companies)

- Public Health would make a recommendation that facilities identify a pharmacy to service the facility during an outbreak or pandemic.
 - Establish an agreement with a local pharmacy that would meet the needs of the facility.
 - Cost and billing issues could possibly be worked out between the facility and the pharmacy in advance of a crisis.

Option 5: Public Health partners with a Pharmacy or Pharmacy organization

- Establish an agreement with a large pharmacy chain that may be able to mobilize needed quantities from several store sites to one or more identified locations at the request of public health.
 - Time delays may occur for mobilization of product.
 - Cost and billing issues that would be created with each facility that would have to be worked out possibly during the crisis.

Option 6: Place a reserve at the State Approved Pharmaceutical Distributor Warehouse

- Public Health could possibly develop a memorandum of understanding (MOU) with the distributor to maintain a reserve of product at the distributor's warehouse to be distributed to a facility identified by Public Health. The identified facility would purchase the product from the distributor.
- Considerations in an MOU:
 - Public Health would not own the product but a fee may be incurred from the distributor for warehouse space to hold the product. Questions regarding insurance on the product may arise. These fees would not be recouped.
 - An agreement with the distributor would need to be developed to include how the reserve would be requested and approved for distribution
 - The distributor would sell the product to the facility
 - If the facility is a current customer of the distributor, then this should work fine.
 - Facilities that are not customers of the distributor may not be able to purchase from Cardinal Health if they are bound to a contract that prohibits them from purchasing from someone other than their current drug distributor.

(1) Prophylaxis

Currently, the circulating H5N1 strain of avian influenza is resistant to the adamantanes, rimantidine and amantadine. However, in the case of a sensitive strain, the adamantanes may be considered for prophylaxis. The CNS side effects, although substantially less with rimantidine than amantadine, may preclude the use of these drugs for certain target groups (e.g. pilots, surgeons). The neuraminidase inhibitor oseltamivir is an alternative option.

Due to the limited supply of antivirals, most likely antivirals will be used for treatment only. It is possible a small percentage of the limited supply will be used for prophylaxis.

Consider the following priority groups for antiviral prophylaxis: (Currently awaiting federal guidelines)

*Short-term prophylaxis is indicated during an outbreak in an institution if long-term prophylaxis was not already used.

(2) Treatment

Currently, neuraminidase inhibitors should be used for therapy because of the potential for viral resistance when adamantanes are used for therapy. For epidemic influenza (the currently circulating strains of influenza), treatment must be initiated within the first two days after symptom onset in order to shorten the duration of illness. The effectiveness of the neuraminidase inhibitors against pandemic influenza is unknown.

Consider the following priority groups for antiviral treatment: (Currently awaiting federal guidelines)

Priority	Group

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b) Intperandemic period, phase 1

- Identify high priority groups for prophylaxis and develop drug distribution plans.
- Identify high priority groups for treatment and develop drug distribution plans.
- Educate medical community and public on high priority groups and appropriate prescribing information.

c) Interpandemic period, phase 2 (if animals in Georgia are affected)

- See Department of Agriculture (Avian influenza plan under development)

d) Pandemic alert period, phase 3

- Meet with partners and stakeholders to review plans.
- Modify plan as necessary.

Proposed improvements:

- Determine antiviral distribution sites.

e) Pandemic alert period, phase 4

- Monitor use of antivirals.
- Monitor adverse events.

Proposed improvements:

- Investigate methods to incorporate antivirals into GRITS.

f) Pandemic alert period, phase 5

- Monitor use of antivirals

g) Pandemic period, phase 6

- Monitor use of antivirals
- Continue use as necessary.

h) Postpandemic period

- Discontinue use of antivirals.
- Review antiviral distribution plan.

D. Communications (ICS-Operations)

1. Background (See Communications Plan Annex to the PH EOP)

Unknown: What materials will be available from CDC, in what languages.

Consider: The key planning activities are those related to preparing materials for use when needed, for example:

- Pandemic-focused Q & A's/fact sheets/video and audio clips, etc., on influenza, influenza vaccine, antiviral agents, etc., in various languages available in print and on-line.
- Prototype press kits, bulletins, newsletters, etc.
- General preventive measures/do's and don'ts for the general public
- Information/guidelines for healthcare providers
- Training modules (Web based, printed, video, etc.)
- "Canned" presentations, slide sets, videos, documentaries
- Symposia on surveillance, treatment, prophylaxis, etc.
- Posters

Because of anticipated shortages of both vaccine and antivirals, planning around messages informing the population about availability and addressing the rationale for priority groups and measures to be taken until such are available will be critical. Other important topics include: basic information about influenza (including symptoms and transmission); information about the course of the pandemic (geographic spread, case counts); information about which symptoms should prompt seeking medical assistance and which symptoms should be managed at home; information about school and business closures and suspended public meetings; information about quarantine laws.

2. Interpandemic period, phase 1

Current activities

- Educate public and providers on human influenza
 - Fact sheet and FAQ on website and in Notifiable Disease Manual
 - Influenza Outbreak Prevention and Control for LTCFs
 - Influenza Outbreak Prevention and Control for Schools
- Provide media with periodic press releases
- Post surveillance data to DPH website

Proposed improvements:

- Webcasts.
- Make web updates more timely.
- Expedite materials through approval process.

3. Interpandemic period, phase 2

Current activities

- Educate public and providers on avian influenza
 - Article in Office of Regulatory Services newsletter to laboratories
 - Information on GDPH website

4. Pandemic alert period, phase 3
5. Pandemic alert period, phase 4
6. Pandemic alert period, phase 5
7. Pandemic period, phase 6
8. Postpandemic period

E. Emergency Response (ICS-Planning)

1. Background
2. Guidelines and procedures for the state of Georgia in the event of an emergency such as pandemic influenza are described in the PH EOP. The federal Department of Homeland Security (DHS) and Georgia Department of Homeland Security – GEMA have an established threat condition level scheme. Threat conditions levels may change during a pandemic, but it is not mandatory the threat condition levels will correspond to a pandemic.

F. Other

1. Health System Response

Surge capacity in health-care facilities is addressed in the Georgia Integrated Surge Capacity Plan through the Health Resources Services and Administration (HRSA). This work will also include triage and stabilization, in-patient, and in-home hospital care capacities.

2. Isolation and Quarantine

Isolation and Quarantine are addressed in the draft Isolation and Quarantine rules and regulations (under development).

3. Special Needs Population Shelter (SNPS)

Shelters for special needs populations are addressed in the SNPS plan.

4. Mutual aid agreements with other organizations (e.g. GHA, MMRS).

A. GHA will assist by communication messages from GDPH to hospitals.

B. GHA may activate its influenza website to monitor hospital activity associated with influenza-like illness.

V. Plan Development and maintenance

The Georgia Pandemic Influenza Preparedness and Response Plan is the principal source of documentation for DPH pandemic influenza activities. Epidemiology is responsible for the overall coordination of the planning process and periodic updates of the plan.

Offices, Sections, and Branches within DPH and DHR participated in the planning and maintenance of the plan.

These Offices, Sections, and Branches include:

Division of Public Health:

Emergency Preparedness
Epidemiology
Immunization Program
Public Health Laboratories
Nursing
Pharmacy
Public Information Officer (PIO) (DPH)

Other DHR Coordinating Agencies:

Emergency Management
Legal Services
Public Information Officer (PIO)
Division of Mental Health, Developmental Disabilities and Addictive Diseases (MHDDAD).
Office of Regulatory Services
Division of Aging Services

VI. References

WHO Pandemic Influenza Plan:

http://www.who.int/csr/resources/publications/influenza/WHO_CDS_CSR_GIP_2005_5/en/

CDC Pandemic Influenza Preparedness and Response Plan:

<http://www.dhhs.gov/nvpo/pandemicplan/>

Annex 1:

For purposes of consistency, comparability and coordination of the national, State, and local response, identification and declaration of the following stages will be done at the national level:

TABLE 1. PANDEMIC INFLUENZA STAGE DEFINITIONS AND ACTIONS

Pandemic Phase (WHO)	Pandemic Phase (WHO, 1999)	PH EOP	WHO Definition	Goal	National Decision-Maker	State Decision-Maker	State Spokesperson	District /Local HD Actions	GDPH Actions	GEMA Actions
Interpandemic period, Phase 1, Phase 2	Phase 0, level 0 – Interpandemic Phase	Prevention /Preparedness	<i>Phase 1.</i> No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk ^a of human infection or disease is considered to be low. <i>Phase 2.</i> No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk ^a of human disease.	Phase 1. Strengthen influenza pandemic preparedness Phase 2. Minimize the risk of transmission to humans; detect and report such transmission rapidly if it occurs.						
Pandemic alert period, Phase 3, Phase 4	Phase 0, levels 1 and 2 – Novel influenza virus identified		<i>Phase 3.</i> Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact. ^b <i>Phase 4.</i> Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans. ^b	Phase 3. Ensure rapid characterization of the new virus subtype and early detection, notification and response to additional cases. Phase 4. Contain the new virus within limited foci or delay spread to gain time to implement preparedness measures, including vaccine development.	CDC and other relevant PHS Agencies	Division Director, GDPH	<ul style="list-style-type: none"> • Division Director, GDPH • State Epidemiologist, GDPH 	<ul style="list-style-type: none"> • conduct inventory of space & resources • review current emergency plans • educate staff • vaccine coverage 	<ul style="list-style-type: none"> • internal planning • notification • enhance surveillance (if identified in N. America) 	<ul style="list-style-type: none"> • advise key personnel • notification (if identified in N. America)

Pandemic Phase (WHO)	Pandemic Phase (WHO, 1999)	PH EOP	WHO Definition	Goal	National Decision-Maker	State Decision-Maker	State Spokesperson	District /Local HD Actions	GDPH Actions	GEMA Actions
Pandemic alert period, Phase 5	Phase 0, level 3 – Human-to-human transmission confirmed		<i>Phase 5.</i> Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).	Phase 5. Maximize efforts to contain or delay spread, to possibly avert a pandemic, and to gain time to implement pandemic response measures.	Secretary, HHS	Division Director, GDPH	<ul style="list-style-type: none"> • Division Director, GDPH • State Epidemiologist, GDPH 	<ul style="list-style-type: none"> • notify hospitals & local partners • notify local emergency management agency 	<ul style="list-style-type: none"> • internal planning • notification • coordination • enhance surveillance • EOC activation planning • vaccine delivery and administration 	<ul style="list-style-type: none"> • notification • EOC activation planning
Pandemic Period, Phase 6	Phases 1, 2, 3 – Confirmation of onset of a pandemic	Detection and Response	<i>Phase 6.</i> Pandemic: increased and sustained transmission in general population. ^b	Phase 6. Minimize the impact of the pandemic.	Secretary, HHS	Division Director, GDPH	<ul style="list-style-type: none"> • Division Director, GDPH • State Epidemiologist, GDPH 	<ul style="list-style-type: none"> • review plan for distribution of public sector vaccine • assist appropriate partners in administration of vaccine, if available 	<ul style="list-style-type: none"> • internal planning • notification • coordination • enhance surveillance • vaccine delivery and administration • develop disease control and prevention recommendations 	<ul style="list-style-type: none"> • notification • activate State EOC, as required
			<ul style="list-style-type: none"> • further spread with involvement of multiple hemispheres; formal declaration made 		President	Governor	Division Director, GDPH	<ul style="list-style-type: none"> • coordinate use of local resources • communicate with GDPH, OHS-GEMA • assist appropriate partners in administration of vaccine and antivirals, if available 	<ul style="list-style-type: none"> • internal planning • notification • coordination • surveillance • planning and assessment • vaccine delivery and administration • develop disease control and prevention recommendations • establish information hotline 	<ul style="list-style-type: none"> • notification • activate State EOC, as required • coordinate state agency responses • respond to needs of local emergency management • establish information hotline

Pandemic Phase (WHO)	Pandemic Phase	PH EOP	National Definition	Goal	National Decision-Maker	State Decision-Maker	State Spokesperson	District /Local HD Actions	GDPH Actions	GEMA Actions
	“Second Wave”		<ul style="list-style-type: none"> resurgence of epidemic activity within several months following the initial wave of infection 		CDC	Division Director, GDPH	<ul style="list-style-type: none"> Division Director, GDPH State Epidemiologist, GDPH 	<ul style="list-style-type: none"> coordinate use of local resources communicate with GDPH, OHS-GEMA assist appropriate partners in administration of vaccine and antivirals, if available 	<ul style="list-style-type: none"> internal planning notification coordination surveillance planning and assessment vaccine delivery and administration 	<ul style="list-style-type: none"> notification activate (fully) State EOC respond to needs of local emergency management continue information hotline
Postpandemic period	Pandemic Over (recovery)	Recovery and Mitigation	Return to interpandemic period <ul style="list-style-type: none"> cessation of successive pandemic “waves” accompanied by the return (in the U.S.) of the more typical wintertime “epidemic” cycle 		CDC	Division Director, GDPH	<ul style="list-style-type: none"> Division Director, GDPH State Epidemiologist, GDPH 	<ul style="list-style-type: none"> assess local capacity to resume normal public health functions/health care delivery assess local response 	<ul style="list-style-type: none"> internal planning notification retrospective studies evaluate response summarize 	<ul style="list-style-type: none"> notification deactivate State EOC evaluate response

a The distinction between *phase 1* and *phase 2* is based on the risk of human infection or disease resulting from circulating strains in animals. The distinction is based on various factors and their relative importance according to current scientific knowledge. Factors may include pathogenicity in animals and humans, occurrence in domesticated animals and livestock or only in wildlife, whether the virus is enzootic or epizootic, geographically localized or widespread, and/or other scientific parameters.

b The distinction between *phase 3*, *phase 4* and *phase 5* is based on an assessment of the risk of a pandemic. Various factors and their relative importance according to current scientific knowledge may be considered. Factors may include rate of transmission, geographical location and spread, severity of illness, presence of genes from human strains (if derived from an animal strain), and/or other scientific parameters.

Annex 2:

Vaccine Registry:

Vaccinations in Georgia are maintained in the Georgia Registry of Immunization Transactions and Services (GRITS). This system includes both vaccine administration and vaccine inventory for use by public health, private providers, and any other vaccine providers.

During interpandemic years and during a pandemic, vaccine administration and inventory, antiviral use, and adverse reactions may be maintained in GRITS.

(1) Costs

The CDC anticipates that national resources *may* be able to offset costs, although the exact level and nature of such resources is not yet determined. Federal resource assistance may include such items as federal contracts for the purchase of vaccine and/or grants or reimbursement activities to subsidize the costs associated with vaccine distribution. However, at a minimum, the state and its local public health communities should expect to absorb the costs associated with the redirection of personnel and should expect to use other financial resources to meet immunization objectives.

Tiered approach to Vaccine Purchase based on minimal to total federal purchase:

Payment	Option 1	Option 2	
State purchase of vaccine from manufacturer/distributor	The Division of Public Health will purchase vaccine using ???? funds.	Each District Health office will purchase vaccine.	
Federal purchase of vaccine. CDC will distribute vaccine allocated to each state. If payment to the federal government is expected:	The state will pay for all vaccine a) by sending a check or b) the federal government will subtract necessary funds from federal funding to be received.	Districts will pay CDC for vaccine	
Partial state and partial federal purchase of vaccine	Payment may be a combination of the options outlined above.		

(2) Liability

Any activity related to liability issues and concerns that may be associated with instances of adverse reactions to vaccine administration will be the responsibility of the federal government. For inclusion in this federal liability coverage, the medical provider must ensure there is adequate documentation regarding the vaccine administration process and be able to identify vaccine recipients.

Other considerations include: ensuring the ACIP and CDC recommendations are followed, mandatory vaccination and other issues outside of vaccination including worker's compensation, closing public facilities, and canceling events.

Liability protection to DHR volunteers is addressed in the PH EOP (VI.a.1.). The influenza vaccine is covered under the Vaccine Injury Compensation Plan.

(3) Infrastructure

As a base for disaster planning associated with vaccine delivery issues, Georgia intends to rely to a large extent on the strength of its current Vaccines for Children distribution system. That program's infrastructure is currently used to efficiently distribute childhood vaccine. In 1999, an average of 140,000 doses of childhood vaccine were distributed each month. This distribution program has the systems, policies, and procedures and these processes can be adapted to assist the state in its pandemic vaccine distribution goals and objectives. Specifically, the current distribution system includes:

- A central pharmacy for management of a state distribution system
- Adequate coolers and back-up power for proper storage of vaccine
- Adequate supplies for repackaging vaccine as necessary
- Established protocols and lines of communication
- An existing communications infrastructure including phone and fax accessibility

In 2005, a change was made to VFC distribution. Vaccine will no longer be sent to the central pharmacy. Instead, vaccine will be delivered directly to the end-user (e.g. public health clinic or private provider). Vaccine will continue to be ordered centrally through the VFC Vaccine Manager at the Georgia Immunization Program.

In addition, the infrastructure built in planning for mass vaccination of the population against smallpox (See Smallpox Plan) and in drafting the Standard Operating Guidelines for Mass Vaccination/Dispensing Clinics should be utilized.

If existing contracted commercial carriers are unable to provide the full extent of needed delivery services, and other commercial carriers cannot be found to provide the full extent of needed delivery services, emergency delivery assistance will be requested. This will include:

- Red Cross

- EMS
- GA State Patrol (404-624-6077)
- Georgia Department of Defense
- Other military personnel
- GDPH employees
- Volunteers from American Academy of Pediatrics (AAP), American Academy of Family Practitioners (AAFP), Georgia Association of Physician Assistants, Georgia Nursing Association, Georgia Nurse Alert System (GNAS), Georgia Pharmacy Alert System (GPHAS), Medical Association of Georgia (MAG), and Georgia Hospital Association (GHA)
- Managed care organizations
- District volunteer lists
- OHS-GEMA

Emphasis will be placed on security to assure vaccine theft and diversion does not hinder vaccination efforts.

State/District

- How to ensure security—use smallpox system?

(4) Vaccine Supplies

Decisions have yet to be made as to what other medical materials will be shipped with the influenza vaccine. This will depend on what supplies will be available from CDC.

During interpandemic influenza vaccination campaigns, vaccine is purchased either by the local provider (public or private) or through the Vaccines for Children (VFC) Program. Through VFC, only vaccine is sent to participating providers. VFC providers are expected to have the additional materials on hand to administer vaccine. Most likely, only vaccine will be supplied (through the various mechanisms below) during a pandemic. Therefore, the vaccine provider (either public health provider or private provider) will need to have other supplies on hand. DPH may help to facilitate purchase of additional supplies, but will not have funding to make the purchase. The following supplies are essential:

- Syringes
- Gloves
- Masks
- Alcohol swabs
- Carbon dioxide canisters (if bioinjectors used)
- Large coolers and coldpacks (can be obtained from Fisher Scientific, 3970 Johns Creek Court, Suwanee, GA 30024, 770-871-4500)
- Biohazard disposal containers
- Emergency kits and protocols
- Temperature logs (Fisher Scientific)
- Usage reports

Vaccine inventory should be maintained in the Georgia Registry for Immunization Transactions (GRITS).

(5) Storage and Distribution Needs

Delivery

Some of the following may be addressed in State and District Strategic National Stockpile (SNS) plans and the Standard Operating Guidelines for Mass Vaccination/Dispensing Clinics.

The Division of Public Health will facilitate the delivery of Georgia's vaccine purchase to the 18 health districts. The apportionment for each district will be based on a CDC apportionment formula, including the population at risk, known epidemiology of the virus, and vaccine received so far.

DPH Delivery Plans

The Immunization Program (or directly from CDC, distributor, or manufacturer) will continue shipments of vaccine to district health departments and other identified community sites as necessary to address community needs. Shipments may occur weekly to monthly depending on vaccine supply and usage. It is expected that 40% of the population will contract influenza; therefore all GDPH staff will be utilized to answer telephones, contact health departments/agencies and other duties as needed. If additional staff is needed to manage excessively large shipments or to continue vaccine management and shipping activity for extended hours or over non-traditional workdays, staff from all state offices will be recruited. This staff, regardless of primary duties and authority, will be responsive to the Immunization Program and be held responsible for vaccine distribution and management.

In some districts, where large provider groups can accept direct shipment of large amounts of vaccine, additional local distribution sites may be added. These additional sites should be identified and included in the district health department's plan. Examples of sites that local communities should consider for direct shipment from the central pharmacy include:

- Tertiary care centers with extensive outreach clinics and services
- Large provider practices serving over 1000 persons per month
- Large residential facilities with over 500 beds serving elderly, disabled, or other dependent populations
- Large businesses.

District Delivery Plans

Given any of the options from above, each district health department will be responsible for implementing their district SNS plans to receive, store and stage the vaccine.

(6) General Considerations

During an influenza pandemic, both the public and private sectors may be mobilized to administer whatever vaccine will be available. The exact proportion of vaccine to be purchased and administered through the public versus private sector is yet to be established. The organization of the vaccination program, in both the public and private sectors, will have to be customized for each community and target group and will depend on the extent and availability of the available infrastructure and resources. The success of the pandemic vaccination program will be determined in large part by public confidence in the benefits of influenza vaccination and the strength of state and local planning. During a pandemic, vaccine and antiviral distribution should be based on the State and District SNS plans. However, special consideration will have to be made regarding priority groups in the event that vaccine is limited.

APPENDIX B: ACRONYMS USED

ACIP	Advisory Committee on Immunization Practice
CDC	Centers for Disease Control and Prevention
DHR	Department of Human Resources
DHS	Department of Homeland Security
DoD	Department of Defense
EARS	Early Aberration Reporting System
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ESF	Emergency Support Functions
EMS	Emergency Medical Services
EIP	Emerging Infections Program
DPH	Division of Public Health
GHA	Georgia Hospital Association
IP	Georgia Immunization Program
GPHL	Georgia Public Health Laboratory
GRITS	Georgia Registry for Immunization Transactions and Services
HD	health department(s)
HEART	Health Emergency Assistance Resource Team
HHS	Health and Human Services
HRSA	Health Resources Services and Administration
HPAI	Highly pathogenic avian influenza
ILI	influenza-like illness(es)
IOP	Internal Operating Procedures
MOU	Memorandums of understanding
OHS-GEMA	Office of Homeland Security-Georgia Emergency Management Agency
PH EOP	Division of Public Health Emergency Operations Plan
PHS	Public Health Service
SNPS	Special Needs Population Shelter
SOC	State Operations Center
SNS	Strategic National Stockpile
WHO	World Health Organization