

GUAM

PANDEMIC INFLUENZA PLAN

DIVISION OF PUBLIC HEALTH
DEPARTMENT OF PUBLIC HEALTH AND SOCIAL SERVICES

TABLE OF CONTENTS

	Page
I. Purpose	4
II. Policies	4
III. Background	4
IV. Assumptions	5
V. Responsibilities	6
VI. Concept of Operations	7
VII. Emergency Management Plan.....	8
VIII. Pandemic Phase Chart	8
IX. Pandemic Phases	10
A. Phase 1.....	10
B. Phase 2.....	11
C. Phase 3.....	12
D. Phase 4	13
E. Phase 5A.....	14
F. Phase 5B.....	15
G. Phase 6A.....	16
H. Phase 6B.....	17
I. Phase 6C.....	18
J. Phase 6D.....	19
K. Phase 6E.....	20
L. Postpandemic.....	21
X. Statutory Authority	21
XI. Components	22
A. Surveillance	22
B. Vaccine Delivery	27
C. Laboratory Plan.....	33
D. Antiviral Agents	34
E. Communications and Education.....	37
F. Emergency Response.....	48

XII. Appendices 51

- Appendix A: Definitions and Acronyms**
- Appendix B: Available Personnel within DPHSS and Other Resources to Assist in the Pandemic Influenza Response**
- Appendix C: Coordination of the Guam Pandemic Influenza Preparedness with other Government, Federal and International Agencies**
- Appendix D: Infection Control Recommendations**
- Appendix E: WHO Guidelines for the Collection of Human Specimens for Laboratory Diagnosis of Avian Influenza Infection**
- Appendix F: Algorithm for Laboratory Screening and Confirmation**
- Appendix G: Travel Advisory Distribution List**
- Appendix H: Public Health Emergency Response ICS Organizational Tree**

Draft

I. PURPOSE

The purpose of this plan is to provide a guide for the Guam Department of Public Health and Social Services (DPHSS) and other Territorial agencies for detecting and responding to an influenza pandemic. The plan describes disease surveillance, emergency management, vaccine and antiviral delivery, laboratory and communications activities, as well as how multiple agencies should work together to respond to such an event.

If confronted with pandemic influenza, the priorities of the DPHSS will be to assure the continuation and delivery of essential public health services while providing assistance to meet emergency needs of the affected population. This plan establishes the framework and guidelines for ensuring that an effective system of health and medically related emergency management is in place to contain adverse outcomes of an influenza pandemic.

The Guam Pandemic Influenza Plan represents an evolutionary process that must be periodically reviewed and updated when new information and guidelines from the World Health Organization (WHO) or the U.S. Centers for Disease Control and Prevention (CDC) are available to ensure that its assumptions, resources, priorities, and plans are consistent with current knowledge and changing infrastructure. In addition, in the event of a pandemic, the judgments of the public health leadership, based on the epidemiology of the current virus, and the extent of its spread within the population of Guam and the region, may alter or override anticipated strategies and plan.

II. POLICIES

1. Employees will have a working knowledge of this plan and identified roles.
2. Appropriate information will be shared with the public.
3. Information will be shared with health and medical organizations, physicians and emergency management agencies at appropriate levels.
4. DPHSS resources will be utilized before requesting assistance from other sources.
5. DPHSS will adhere to appropriate medical ethics/practice when allocating scarce resources.

III. BACKGROUND

Influenza viruses are unique in their ability to cause infection in all age groups on a global scale. In addition to the highly transmissible nature of influenza, the virus can change its antigenic structure, resulting in novel sub-types that have never occurred in humans before. Major shifts in the viral sub-types are associated with influenza pandemics. The 1918 influenza pandemic caused more than 20 million deaths worldwide and caused the death of approximately 5% of Guam's population (this would be equivalent to approximately 8,400 deaths on Guam today). The pandemics of 1957 and 1968 resulted in lower mortality rates due in part to antibiotic therapy for secondary bacterial infections and more aggressive supportive care. They both, however, were associated with high rates of morbidity and social disruption.

Pandemic influenza is a unique public health emergency and community disaster. It is considered a highly probable, if not inevitable, event but no one can predict when it will occur.

There may be little warning, but most experts agree that there will be one to six months between identification of a novel virus and widespread outbreaks in the United States. Outbreaks will occur simultaneously throughout the United States, and the effect on individual communities will last from six to eight weeks or more. Depending on where the pandemic starts, Guam may be affected sooner or later than the continental United States.

Pandemic influenza has the potential of affecting all elements of society. A large number of cases will add burden to hospitals and other health care systems already stressed with the normal day to day crises. Mortality is usually markedly increased. Health and medical personnel as well as other infrastructure workers, i.e. law enforcement, fire, public works, will not be immune. The effects on our communities could be staggering.

IV. ASSUMPTIONS

For planning purposes, the worst-case scenario is being projected. If the situation does not fully develop, the response can be adjusted. The following assumptions are made:

1. Pandemic influenza has occurred every 11 to 39 years in the 20th century. Based on history of the 20th century, we would expect an influenza pandemic within the next few years.
2. A novel influenza virus strain will likely emerge in a country other than the United States, but a novel strain could emerge first in the U.S.
3. With the emergence of a novel influenza virus strain, it is likely that all persons will need two doses of vaccine, with 30-day intervals between doses, to achieve optimal antibody response.
4. Although there may be isolated unaffected pockets, the pandemic is likely to affect all geographic areas of Guam.
5. The emergency response element will require the substantial interaction of agencies beyond DPHSS.
6. During the 2004 flu season, approximately 4,354 doses of influenza vaccine were distributed and administered by the DPHSS Immunization Program (2.9% of Guam's civilian population), which will not necessarily provide the specific type of protection needed.
7. Guam's tourists and other visitors will create a potential vaccination target population of nearly one-third more than that of the island's permanent resident population.
8. When the pandemic occurs, vaccines and medicines will be in short supply and will have to be allocated on a priority basis. Current vaccine manufacturing procedures dictate that a minimum of 6-8 months would elapse before tens of millions of doses would become available for distribution; thus, it is possible that no vaccine will be available during the early course of the pandemic.

9. According to CDC guidelines, total vaccine supply will be under the control of the federal government, with states and territories receiving an allotment.
10. The federal government has assumed responsibility for devising a liability program for vaccine manufacturers and persons administering the vaccine.
11. Response to the demand for services will require non-standard approaches, including:
 - a. Discharge of all but critically ill hospital patients
 - b. Expansion of hospital “capacity” by using all available space and “less than code compliance beds”
 - c. Increase of patient ratio to hospital staff
 - d. Recruitment of volunteers who can provide non-medical services under the general supervision of health and medical workers
 - e. Relaxation of practitioner licensure requirements as deemed appropriate, and
 - f. Utilization of general purpose and special needs shelters as temporary health facilities.
12. The federal government has assumed responsibility for developing “generic” guidelines and information templates, including fact sheets, triage and treatment of influenza patient’s protocols, and guidelines for the distribution and use of vaccines and antiviral agents that can be modified at the state and local level. Until these are developed and available, the state has the responsibility to develop such guidelines for its citizens.
13. Secondary bacterial infections following influenza illness may stress antibiotic supplies.

In addition to the above assumptions, it is felt that there may be as little as one to six months warning before outbreaks begin in the U.S. and Guam, if the pandemic emerges in another country. The pandemic may occur during time periods not normally associated with our usual influenza season, and the pandemic strain may attack categories of people at different rates than those which normally occur during typical influenza seasons.

V. RESPONSIBILITIES

1. DPHSS will seek an Executive Order from the Governor in order to activate state/local resources for the pandemic response.
2. DPHSS Director will assume the role of Incident Command at the Emergency Operations Center (EOC) and provide leadership to other agencies and resources in the management of this type of event.
3. DPHSS will assist in the identification and the coordination of provision of resources needed by local health and medical systems to cope with the emergency.
4. The Division of Public Health will identify and coordinate planning with key stakeholders through the Pandemic Influenza Coordinating Committee (PICC) made up of representatives from the Chief Public Health Office, Bureau of Communicable Disease

Control (BCDC), Bureau of Family Health and Nursing Services (BFHNS), Bureau of Professional Support Services (BPSS), and Bureau of Primary Care Services (BPCS). Other key stakeholders for involvement in planning include the Guam Memorial Hospital Authority (GMHA), Guam Office of Homeland Security/Office of Civil Defense, Guam Public School System (GPSS), Guam Medical Society (GMS), Guam Nurses Association (GNA), Department of Mental Health and Substance Abuse (DMHSA), Guam International Airport Authority (GIAA), Guam Customs and Quarantine Agency, U.S. Customs and Border Protection, etc.

5. DPHSS will be responsible for developing plans to assess existing health care resources, coordinate responses with key stakeholders, and develop contingencies for anticipated shortages of essential services.
6. DPHSS will also be responsible for promoting inter-pandemic routine influenza and pneumococcal vaccination to designated high-risk groups.
7. The DPHSS Central Laboratory will provide expertise in early identification of the presence and type of influenza, and inform physicians of procedures for requesting laboratory confirmation of suspected influenza cases.
8. The DPHSS Epidemiologist will conduct surveillance of influenza and related disease activity and provide continuous information of its course and impact upon the population.
9. The DPHSS Communications Office, in collaboration with the Joint Information Center (JIC) at Guam Homeland Security/Office of Civil Defense, will keep the public informed during all phases of the pandemic.

VI. CONCEPT OF OPERATIONS

The DPHSS Director shall assume command for directing the response to the influenza pandemic. At the point where resources outside DPHSS are needed or the provision of essential community services are being affected as a result of the pandemic, the DPHSS Director with the guidance and assistance of the Pandemic Influenza Committee (PIC) will recommend to the Governor the activation of the EOC.

The EOC shall be utilized to track missions, acquire resources, document costs and coordinate response activities among the major territorial agencies/organizations. The general methods of operation shall be undertaken as provided in this plan and the Guam Emergency Response Plan. In responding to the influenza pandemic, the DPHSS will have lead responsibility and the Office of Civil Defense (the Emergency Management Agency) will have a support role.

If emergency powers are needed, the DPHSS Director in consultation with the PIC, shall draft a Governor's Executive Order declaring that a state of emergency exists and specifying the emergency powers that are necessary or appropriate to cope with the emergency. If it appears that significant expenditures will be required to respond to this emergency, the

DPHSS Director and the Guam Homeland Security Advisor will jointly recommend, and the Governor will request, a presidential disaster declaration. If granted, this declaration may make federal funding available.

In addition to public health, the general strategy of the plan is to protect the infrastructure so to ensure that the health and medical community, as well as government and business, will continue to function. This decision will require allocation and redirection of scarce resources where needed to maintain optimal functioning and health of society.

VII. EMERGENCY MANAGEMENT PLAN

The Guam Office of Homeland Security/Office of Civil Defense prepares and maintains a comprehensive Guam Emergency Response Plan, which provides for an emergency management system that includes a broad range of preparedness, response, recovery, and mitigation responsibilities. The primary focus of this document is to outline roles, responsibilities, and appropriate actions taken as a result of an emergency or disaster.

The Office of Civil Defense (OCD) coordinates with local and federal elected officials and liaises with agency heads and cabinet officers, providing a key link with the Governor and staff. When an emergency or a disaster overwhelms local governmental resources, assistance may be requested from federal resources through the OCD, which then activates the Response Activity Coordinators (RAC).

The RAC consist of representatives of core Government of Guam agencies, voluntary organizations, and the military organizations on island.

The EOC, in almost all disasters, maintains direction and control while serving as the central clearinghouse for disaster-related information and requests for assistance from local government. After an area has been impacted by a major disaster, the state continues to provide support to local communities through response and recovery operations. Recovery assistance includes community relations teams and coordination with unmet needs committees and other state and local agencies. In the case of presidential declared disasters, federal and local governments jointly coordinate recovery efforts from a Disaster Field Office.

VIII. PANDEMIC PHASE CHART

Pandemic planning is divided into several phases, from early identification of a novel virus to resolution of pandemic cycling. These phases are determined and announced by CDC in collaboration with the WHO. The Guam Pandemic Influenza Plan follows the same phase guidelines, prescribing necessary activities and identifying responsible parties by pandemic phase. These declared and defined phases will help ensure a consistent and coordinated response by national, state, and local agencies in the event of an influenza pandemic event.

The intent is for all activities listed in this document to be initiated during the assigned pandemic phase. Some activities will, of course, continue during subsequent phases.

The pandemic phase table below is based on the phases outlined in the World Health Organization’s “Global Influenza Preparedness Plan”, Geneva, Switzerland, 2005.

WHO PANDEMIC PHASE	PERIOD	DEFINITION
PHASE 1	Interpandemic Period	No indication of any new virus types.
PHASE 2	Interpandemic Period	New virus type detected in animals but not in man.
PHASE 3	Pandemic Alert Period	New influenza strain in a human but no (or rare) human-to-human spread.
PHASE 4	Pandemic Alert Period	Small cluster(s) with limited human-to-human transmission anywhere.
PHASE 5(A)	Pandemic Alert Period	Larger cluster(s) of human-to-human transmission but still localized to a single country/region without direct flights to Guam.
PHASE 5(B)	Pandemic Alert Period	Larger cluster(s) of human-to-human transmission but still localized to a single country with direct flights to Guam.
PHASE 6 (A)	Pandemic Period	Increased and sustained human-to-human transmission in multiple countries/regions near Guam (Philippines, Hawaii, Indonesia, Japan, Taiwan) but not Guam
PHASE 6 (B)	Pandemic Period	Pandemic reaches Guam
PHASE 6 (C)	Pandemic Period	<i>End of First Wave.</i> Activity in initially affected regions/countries stopped; cases still occurring elsewhere and on Guam
PHASE 6 (D)	Pandemic Period	<i>End of First Wave.</i> Activity in initially infected regions/countries stopped; cases much decreased or absent on Guam based on local surveillance data.
PHASE 6 (E)	Pandemic Period	<i>Second Wave.</i> Second outbreak in a region, 3-9 months after first wave.
	Postpandemic Period	Pandemic transmission over, likely 2-3 years after onset; immunity to new virus type is widespread in the population.

IX. PANDEMIC PHASES

A. PHASE 1. (Interpandemic Period. No indication of any new virus types)

During “normal” influenza seasons, influenza viruses antigenically related to recently circulating viruses continue to evolve and cause disease during annual epidemics at the level of local community, state, nation or continent. Activities during this phase are directed at maintaining the infrastructure of health and medical resources and strengthening those resources where possible to prepare for years of higher incidence of influenza. Activities that should be pursued, or considered, and will ultimately enhance the health system’s ability to handle a pandemic influenza are as follows:

Surveillance

1. Routine collection of morbidity data from health care providers, including military providers.
2. Weekly summary of syndromic surveillance data from the Guam Memorial Hospital Authority-Emergency Department (GMHA-ED) Patient Log Book.
3. Routine collection of animal morbidity and mortality data by Territorial Veterinarian.
4. Routine inspection by Guam Customs & Quarantine Agency staff at ports of entry (Airport and Commercial Port).

Vaccine Delivery

1. Maintain a system for distribution of vaccines through the DPHSS Immunization Program.
2. Develop a strategic plan through the DPHSS Immunization Program, community health centers (CHC - Northern Regional Community Health Center (NRCHC) and Southern Regional Community Health Center (SRCHC)), and Vaccines for Children (VFC) Providers for management of vaccine delivery and administration during an influenza pandemic.
3. Develop a plan for prioritized administration of influenza vaccine in the event of inadequate supplies through the DPHSS Immunization Program.
4. Identify existing vaccine storage capability through the DPHSS Immunization Program and CHCs.
5. Identify partners, such as CHCs and Guam Memorial Hospital Authority (GMHA), which will assist with short-term emergency storage needs.
6. Identify partners in the community that can assist with mass immunizations.
7. Promote increased influenza and pneumococcal vaccine coverage levels in traditional high-risk groups through local associations with assistance from DPHSS Immunization Program and Health Education.
8. Encourage the GMS and other physicians and healthcare professionals, associations and organizations to promote increased influenza and pneumococcal vaccine coverage levels in high-risk groups.
9. Ensure that adverse events following vaccination are reported through the Vaccine Adverse Events Reporting System (VAERS).

Laboratory Plan

1. Maintain inventory of laboratory supplies.
2. Maintenance of laboratory equipment.
3. Establish guidelines for collection and transport of human specimens for the laboratory diagnosis of pandemic influenza infection.
4. Establish guidelines to notify physicians of laboratory testing and criteria for submitting specimens.
5. a) Purchase at least 4 kits (25 tests per kit) of influenza A & B.
b) Maintain 1 kit at all times.
6. Establish a list of reference laboratories for the confirmation of H5N1 strain.

Antiviral Agents

1. Keep track of updates in the development, evaluation, production, and availability of antiviral agents in the U.S.
2. Maintain list of vendor sources of antiviral agents.
3. Make planning decisions for acquisition and procurement of antiviral agents.
4. Develop a strategic plan through the DPHSS Central Pharmacy for the management, use and rapid distribution of antiviral drugs, in accordance with CDC guidelines.
5. Identify existing storage capability through the DPHSS Central Pharmacy and CHCs.
6. Establish list of priority populations involved in pandemic response activities and maintenance of critical services and health infrastructure for antiviral prophylaxis.
7. Update and maintain treatment and prophylactic guidelines in the use of antiviral agents as recommended by CDC.

Communications and Education

1. Provide educational information on pandemic influenza and the significance of such an event on the island;
2. Establish a means of rapid communication between CHCs and local health providers;
3. Develop templates for news releases in event of pandemic; and
4. Maintain an updated list of media representatives.

Emergency Operations

Maintain a state of preparedness.

B. PHASE 2. (Interpandemic Period. New virus type detected in animals but not man)

Surveillance

1. Routine collection of morbidity data from health care providers.
2. Weekly summary of syndromic surveillance data from GMHA-ED Patient Log Book.
3. Routine collection of animal morbidity and mortality data by Territorial

Veterinarian, and laboratory testing of unusual mortalities among reservoir species.

4. Routine inspection by Guam Customs and Quarantine Agency staff at ports of entry (Airport and Commercial Port).
5. Coordinate with the DPHSS Communications Office; provide education and recommendations to health care facilities, health care providers, and the general public regarding the prevention, detection, and control of influenza.

Vaccine Delivery

Continue activities in preparedness stage Phase 1.

Laboratory Plan

1. Local physicians notified of laboratory testing available and criteria for submitting specimens.
2. Laboratory testing for influenza A and B of human patients with symptoms of the flu and history of contact to infected animals.
3. If positive for influenza A or B specimen will be sent to CDC for pandemic influenza testing.

Antiviral Agents

1. Review options for procurement of antiviral agents.
2. Review current information on the use, effectiveness, safety, and the development of drug resistance of antiviral agents.
3. Initiate order of antiviral agents for stockpile, if available.

Communications and Education

1. Prepare public information releases in conjunction with the Office of Epidemiology and Research.
2. Prepare and keep ready a list of potential questions, with available answers.
3. Review and revise, as needed, drafts of public information documents.
4. Meet with media representatives to devise a plan for collaborative dissemination of regular, relevant and timely surveillance data.
5. Post weekly summary data to the DPHSS web site for information dissemination.
6. Review current electronic and telecommunications capabilities for rapidly compiling, transmitting and disseminating data.

Emergency Operations

Continue preparedness stage.

C. PHASE 3. (Pandemic Alert Period. New influenza strain in a human but no (or rare) human-to-human spread)

Surveillance

1. Routine collection of morbidity data.
2. Weekly summary of syndromic surveillance data from GMHA-ED Patient Log Book.

3. Routine collection of animal morbidity and mortality data by Territorial Veterinarian, and laboratory testing of unusual mortalities among reservoir species.
4. Coordinate with Guam Customs & Quarantine Agency and airlines to provide current health information to travelers who visit countries where avian or animal influenza strains that can infect humans (e.g. avian influenza A [H5N1]) with pandemic potential have been reported.
5. Continued coordination with the DPHSS Communications Office, to provide education and recommendations to health care facilities, health care providers, and the general public regarding the prevention, detection, and control of influenza.

Vaccine Delivery

Follow progress in development of effective vaccine for new virus.

Laboratory Plan

1. Laboratory testing for influenza A and B of human patients with symptoms of the flu and history of contact to infected animals.
2. If positive for Flu A – specimen will be sent to CDC for pandemic Influenza testing.

Antiviral Agents

1. Continue to assess status of available antiviral agents and strategies for use.
2. Follow-up procurement of antiviral drugs.
3. Develop a tracking system to report and monitor adverse events in persons who will be given antiviral therapies.

Communications and Education

1. Establish contact with media representatives.
2. Communicate to the community the influenza disease potential and local plan of action.
3. Provide updates for the public in conjunction with the surveillance and vaccine delivery functions.

Emergency Operations

1. Continue preparedness stage.
2. Identify and develop communication with agencies required to mobilize in the event of pandemic activity.

D. PHASE 4. (Small cluster(s) with limited human-to-human transmission anywhere)

Surveillance

- b. Routine collection of morbidity data from health care providers.
- c. Weekly summary of syndromic surveillance data from GMHA-ED Patient Log Book.
- d. **Enhanced surveillance by assigning** personnel to assist in the daily collection and

review of absenteeism data from:

- a. Schools
 - b. Childcare Centers and Pre-Schools
 - c. Private clinics of their healthcare workers
 - d. Government of Guam departments and agencies
 - e. Facilities catering to senior population (Senior Citizen Centers, Adult Daycare, St. Dominic's, etc.).
- e. Inform physicians of procedures and begin laboratory testing for suspect local cases meeting CDC/WHO case definition.
 - f. Continue to coordinate with Guam Customs & Quarantine Agency to enhance surveillance at ports of entry including investigation of illness among travelers returning from affected areas and implementing isolation and quarantine measures as needed.

Vaccine Delivery

Follow progress in development of effective vaccine for new virus.

Laboratory Plan

1. Continue laboratory testing for local cases meeting CDC/WHO case definition.
2. Review inventory of laboratory supplies and procure as needed.

Antiviral Agents

1. Inventory supply of antiviral drugs and ensure adequate supply.
2. Review and revise, as needed, priority groups and strategies for antiviral drug use.
3. Monitor current information on antiviral resistance of the pandemic strain.
4. Maintain updates of treatment guidelines as recommended by CDC.

Communications and Education

1. Frequently update the situation to the JIC with guidance and specification of actions as well as information to public.
2. Report collected data to all participating facilities and post information on the DPHSS website, and DPHSS health care listserv.
3. **In coordination with the DPHSS Communications Office, the issuance of general travel advisories (i.e., posters at airport, public service announcements, and press releases) to individuals traveling to affected destinations will be initiated.**

Emergency Operations

Continue preparedness stage.

E. PHASE 5(A). (Larger cluster(s) of human-to-human transmission but still localized to a single country/region without direct flights to Guam)

Surveillance

1. Routine collection of morbidity data from health care providers.
2. Weekly summary of syndromic surveillance data from GMHA-ED Patient Log

Book.

3. Continue **enhanced surveillance through** the daily collection and review of absenteeism data from:
 - a. Schools
 - b. Childcare Centers and Pre-Schools
 - c. Private clinics of their healthcare workers
 - d. Government of Guam departments and agencies
 - e. Facilities catering to senior population (Senior Citizen Centers, Adult Daycare, St. Dominic's, etc.).
4. Continue to inform physicians of procedures and continue laboratory testing for suspect local cases meeting CDC/WHO case definition.
5. Continue enhanced surveillance at ports of entry in coordination with Guam Customs & Quarantine Agency (same as phase 4).

Vaccine Delivery

1. Prepare DPHSS Immunization Program for quick distribution of the vaccine, once available.
2. Determine other possible community vaccine redistribution sites.

Laboratory Plan

1. Continue laboratory testing for local cases meeting CDC/WHO case definition.
2. Review inventory of laboratory supplies and procure as needed.

Antiviral Agents

1. Prepare DPHSS Central Pharmacy for rapid distribution of antiviral drugs, once available.
2. Maintain and ensure adequate supply of antiviral drugs.
3. Maintain registry of individuals in priority populations receiving antiviral drugs.
4. Monitor adverse events in persons receiving antiviral drugs.

Communications and Education

1. Coordinate communications with JIC once EOC opens.
2. Provide frequent updates of situation to JIC, as well as information to public, with guidance and specification of actions.
3. Hold daily news conferences.
4. **Continue the issuance of general travel advisories (include FAQs) to individuals traveling to affected destinations.**

Emergency Operations

1. Continue preparedness stage.
2. Begin identifying response personnel, equipment, and supplies.
3. In coordination with DPHSS Communications Office, develop contingency plans to provide medical care information for people sick at home.
4. In coordination with the Office of Civil Defense, develop contingency plans to maintain other essential community services.

F. PHASE 5(B). (Larger cluster(s) of human-to-human transmission but still localized to a single country/region with direct flights to Guam)

Surveillance

Immediately enter “WHO Phase 6(A)”.

Vaccine Delivery

1. Prepare DPHSS Immunization Program for quick distribution of the vaccine, once available.
2. Determine other possible community vaccine redistribution sites.

Laboratory Plan

1. Continue laboratory testing for local cases meeting CDC/WHO case definition.
2. Review inventory of laboratory supplies and procure as needed.

Antiviral Agents

1. Continue to distribute antiviral drugs to priority groups.
2. Review inventory of antiviral drug supply and procure as needed.
3. Maintain registry of individuals in priority populations receiving antiviral drugs.
4. Monitor adverse events in persons receiving antiviral drugs.

Communication and Education

1. Continue to provide frequent updates of situation to JIC, as well as information to public, with guidance and specification of actions.
2. Hold daily news conferences.

Emergency Operations

Alert DPHSS Director of potential event.

G. PHASE 6(A). (Pandemic Period. Increased and sustained human-to-human transmission in multiple countries/regions near Guam-Philippines, Hawaii, Indonesia, Japan, or Taiwan) but not Guam.

Surveillance

1. **Routine** collection of morbidity data from health care providers.
2. Weekly summary of syndromic surveillance data from GMHA-ED Patient Log Book.
3. Office of Vital Statistics begins to report influenza deaths.
4. Continue **enhanced surveillance through** the daily collection and review of absenteeism data from:
 - a. Schools
 - b. Childcare Centers and Pre-Schools
 - c. Private clinics of their healthcare workers
 - d. Government of Guam departments and agencies
 - e. Facilities catering to senior population (Senior Citizen Centers, Adult Daycare, St. Dominic’s, etc.)

5. Continue to inform physicians of procedures and continue laboratory testing for suspect local cases meeting CDC/WHO case definition.
6. In coordination with Customs and Quarantine, initiate airport surveillance for fevers, apparent illness (transported to hospital), and distribute “yellow arrival advisories” (based on SARS advisory) to passengers on flights from affected countries with direct flights to Guam.

Vaccine Delivery

1. Begin distribution of pandemic vaccine, if available, and immunization of target groups.
2. Deliver vaccine to CHCs, VFC Providers and other community sites or have them pick-up vaccine at DPHSS Immunization Program.
3. Begin active coordination through the DPHSS Immunization Program and CHCs with local partners to establish massive immunization efforts directed at high priority target groups.

Laboratory Plan

1. Continue laboratory testing for local cases meeting CDC/WHO case definition.
2. Review inventory of laboratory supplies and procure as needed.

Antiviral Agents

Continue activities in 5(B).

Communications and Education

1. Continue to provide frequent updates of situation to JIC, as well as information to public, with guidance and specification of actions.
2. Hold daily news conferences.
3. Continue the issuance of travel advisories, and seek recommendation for the Governor’s endorsement to include travel restrictions to affected destinations and the institution of “Fit for Travel”, or equivalent, policy by the airlines.

Emergency Operations

1. Alert DPHSS Director of potential event.
2. Plan for activation of the Emergency Operations Center (EOC) for those Emergency Support Functions (ESFs) needed for pandemic response.
3. Monitor actions of partners within DPHSS.

H. PHASE 6(B). (Pandemic reaches Guam)

Surveillance

1. Routine collection of morbidity data from health care providers.
2. Daily summary of syndromic surveillance data from GMHA-ED Patient Log Book.
3. Office of Vital Statistics continues to report influenza deaths.
4. Continue enhanced surveillance through the daily collection and review of

absenteeism data from:

- a. Schools
 - b. Childcare Centers and Pre-Schools
 - c. Private clinics of their healthcare workers
 - d. Government of Guam departments and agencies
 - e. Facilities catering to senior population (Senior Citizen Centers, Adult Daycare, St. Dominic's, etc.)
5. Investigate initial cases and outbreaks and implement interventions to decrease spread of disease.
 6. Most lab testing discontinued when local transmission is confirmed.
 7. Initiate "crowd avoidance" advisories and discourage gatherings with possible closure of schools, etc. Trigger points: ≥ 2 standard deviations in GMHA-ED ARD census, and absenteeism data.
 8. In coordination with the DPHSS Communications Office and JIC, issuance of advisory on voluntary home isolation of sick persons and encouraging employers/supervisors to send ill employees home. -**Quarantine/Isolation Section?**
 9. In coordination with Customs and Quarantine, continue intensified joint airport surveillance for fevers, apparent illness (transported to hospital), and distribution of "yellow arrival advisories".
 10. Identify risk factors for infection and adverse health outcomes.
 11. Assess effectiveness of public health measures and outbreak control strategies.

Vaccine Delivery

1. Continue to distribute (DPHSS Immunization Program) and control use of vaccines.
2. Modify distribution system (DPHSS Immunization Program) as needed to ensure optimal coverage.
3. Determine other possible community vaccine redistribution sites.

Laboratory Plan

1. Local physicians notified of laboratory testing available, criteria for submitting specimens may be altered to avoid laboratory overload, most testing discontinued when local transmission is confirmed.

Antiviral Agents

1. Monitor antiviral drug distribution and adverse events.
2. Assess availability of antiviral drug stockpile and request for replenishment.

Communications and Education

1. Continue to provide frequent updates of situation to JIC, as well as information to public, with guidance and specification of actions.
2. Hold daily news conferences.
3. **Continue travel advisories (including recommended travel restrictions and the institution of "Fit for Travel", or equivalent, policy).**

Emergency Operation:

1. Response activities initiated.
 2. Assume responsibilities at the EOC as the Operations Section Chief for direction and implementation of all response to the event.
- I. PHASE 6 (C).** (End of First Wave. Activity in initially affected regions/countries stopped; cases still occurring elsewhere and on Guam)

Surveillance

1. **Continue routine and enhanced** collection of morbidity data from health care providers.
2. Daily summary of syndromic surveillance data from GMHA-ED Patient Log Book.
3. Office of Vital Statistics continues to report influenza deaths.
4. Review results of laboratory testing, and change criteria for submitting specimens, if advisable.
5. Continuance of “crowd avoidance” advisories.
6. Continuance of advisories for voluntary home isolation of sick persons.
7. Continue joint airport surveillance for fevers, apparent illness (transported to hospital) and distribution of “yellow arrival advisories”. Continue travel advisories.
8. Continue to assess effectiveness of public health measures and outbreak control strategies.

Vaccine Delivery

1. Continue distribution (DPHSS Immunization Program) and control use of vaccines.
2. Modify distribution system (DPHSS Immunization Program) as needed to ensure optimal coverage.
3. Assess vaccine coverage, effectiveness of targeting to priority groups, and efficiency of distribution and administration; determine number of persons who remain unprotected.
4. Monitor continued administration of vaccine to persons not previously protected.

Laboratory Plan

Review results of laboratory testing; change criteria for submitting specimens if necessary.

Antiviral Agents

Assess antiviral drug effectiveness and safety.

Communications and Education

1. Continue to provide frequent updates of situation to JIC, as well as information to public, with guidance and specification of actions.
2. Hold daily news conferences.

Emergency Operations

1. Continue response activities.
2. Maintain EOC operations.

J. PHASE 6 (D). (End of First Wave. Activity in initially affected regions/countries stopped; cases much decreased or absent on Guam based on local surveillance data)

Surveillance

1. **Resume** Routine collection of morbidity data from health care providers.
2. Weekly summary of syndromic surveillance data from GMHA-ED Patient Log Book.
3. Office of Vital Statistics continues to report influenza deaths.
4. Daily collection and review of absenteeism data continues.
5. Discontinue routine laboratory testing; only test specimens from patients with appropriate travel history, new syndrome, etc.
6. Discontinue “crowd avoidance” advisories, permit opening of schools, public gatherings, etc.
7. Continuance of advisories for voluntary home isolation of sick persons. – **Quarantine/Isolation Section?**
8. Discontinue joint airport surveillance for fevers and apparent illness should be transported to hospital; continue to pass out “yellow arrival advisories” to passengers arriving from affected countries.
10. Continue to assess and estimate overall pandemic influenza impact including morbidity and mortality.
11. Continue to enhance surveillance to detect further pandemic waves.

Vaccine Delivery

1. Continue to distribution (DPHSS Immunization Program) and control use of vaccines.
2. Modify distribution system (DPHSS Immunization Program) as needed to ensure optimal coverage.
3. Monitor continued administration of vaccine to persons not previously protected.

Laboratory Plan

Discontinue routine laboratory testing, only test specimens from patients with appropriate travel history, new syndrome, etc.

Antiviral Agents

1. Evaluate needs for antiviral drug use.
2. Continue to monitor adverse events and report to CDC, if any.

Communications and Education

1. Continue to provide frequent updates of situation to JIC, as well as information to public, with guidance and specification of actions.
2. Hold daily news conferences.
3. **Modify travel advisories/restrictions based on countries of lower flu incidence.**

Emergency Operations

1. Continue response activities, but gradually return to normal operational levels.
2. Maintain EOC operations but transition Operations Section Chief responsibilities back to the Office of Civil Defense.

K. PHASE 6 (E). (Second Wave. Second outbreak in a region, 3-9 months after first wave)

Surveillance

1. Repeat Phases 4-6 as appropriate.

Vaccine Delivery

1. Continue to distribute (DPHSS Immunization Program) and control use of vaccines.
2. Modify distribution system (DPHSS Immunization Program) as needed to ensure optimal coverage.

Laboratory Plan

Repeat Phases 4-6 as appropriate.

Antiviral Agents

1. Continue to evaluate needs for antiviral drug use.
2. Continue to monitor adverse events and report to CDC, if any.

Communications and Education

1. Continue to provide frequent updates of situation to JIC, as well as information to public, with guidance and specification of actions.
2. Hold daily news conferences.

Emergency Operations

Repeat pandemic phases 4-6 activities as appropriate.

L. Postpandemic Period. (Pandemic transmission over, likely 2-3 years after onset; immunity to new virus type is widespread in the population)

Surveillance

1. Revert to interpandemic surveillance and control activities.

Vaccine Delivery

1. Assess supply status and any imminent needs.
2. Prepare report assessing vaccine delivery response.

Laboratory Plan

Revert to interpandemic surveillance and control activities.

Antiviral Agents

1. Assess antiviral effectiveness and safety.

2. Prepare report of antiviral drug use and efficacy.

Communications and Education

1. Continue to provide frequent updates of situation to JIC, as well as information to public, with guidance and specification of actions.
2. Hold daily news conferences.

Emergency Operations

1. Return to normal operation.
2. Transition Operations Section Chief responsibility back to the Office of Civil Defense.

X. STATUTORY AUTHORITY

Statute	Agency	Authority
Chapter 68. Title 42	Federal Government	provides authority to declare and respond to emergencies and provide assistance to protect public health; implemented by the Federal Emergency Management Agency.
Section 361(b) of the Public Health Service Act (42 U.S.C. 264 (b))	Federal Government	<input type="checkbox"/> control of communicable diseases as determined by the Secretary of Health, in consultation with the Surgeon General.
10 GCA, Chapter 19, <i>Emergency Health Powers Act</i> , Article 4, Section 19401	Governor	allows Governor to declare a state of Public Health Emergency.
10 GCA, Chapter 3, Article 3, <i>Disease Control</i> , and Chapter 19, <i>Emergency Health Powers Act</i> , Article 3, Section 19301	Department of Public Health and Social Services	authorizes the department to administer and enforce laws and rules relating to control of communicable diseases.
10 GCA, Chapter 19, <i>Emergency Health Powers Act</i> , Article 5	Department of Public Health and Social Services	special powers during a State of Public Health Emergency: Management of Property.
10 GCA, Chapter 19, <i>Emergency Health Powers Act</i> , Article 6	Department of Public Health and Social Services	special powers during a State of Public Health Emergency: protection of persons, including isolation and quarantine.
10 GCA, Chapter 19, <i>Emergency Health Powers Act</i>	Department of Public Health and Social Services	public information regarding Public Health Emergency.

Act, Article 7		
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XI. COMPONENTS

A. SURVEILLANCE

The DPHSS Director is responsible for the overall direction and control of health-related personnel and resources committed to the control of an influenza pandemic, including surveillance and related activities.

Guam Surveillance - Routine surveillance activities in Guam are also part of the national monitoring system (items 1 and 2 below). Current on-going activities include:

1. A sentinel syndromic surveillance network system which reports daily and weekly ARD and total number of patient ER visits to the GMHA.
2. Voluntary reporting through the DPHSS of ARD outbreaks in institutional settings, such as long-term care facilities, schools and prisons. As part of the regional laboratory network, DPHSS central lab has the capacity to perform rapid testing for Influenza A and B.

National surveillance - In the US, national influenza surveillance is coordinated by the CDC, with state and county health departments assuming responsibility for virologic, mortality and morbidity components. These activities consist of:

1. WHO Collaborating Laboratory Surveillance – approximately 70 labs report the number and type of influenza viruses isolated each week, as well as submit representative and unusual viral specimens to CDC for antigenic analysis.
2. State and Territorial Epidemiologist Report – the level of influenza in their jurisdiction each week as “no activity,” “sporadic,” “regional,” or “widespread” is reported based on incoming information from the field.
3. 121 Cities Influenza and Pneumonia Mortality System – Vital Statistics Offices of 121 US cities report on a weekly basis the percentage of total deaths caused by influenza and pneumonia.
4. Sentinel Physicians ILI Surveillance System – a voluntary national network of physicians and clinics that report number of patients presenting with ILI and total number of patient visits by age group each week.

International surveillance - These activities are coordinated at the CDC by the WHO Collaborating Center for Influenza Reference and Research. WHO’s global influenza network includes approximately 110 national laboratories in over 80 countries and four international reference centers. The CDC maintains frequent communication with this network concerning the numbers and types/subtypes of influenza viruses isolated, including the extent of influenza-like disease occurring at the time of virus isolation.

Phase 1. Interpandemic Period. No indication of any new virus types.

Surveillance Activities:

1. Routine collection of morbidity data from health care providers, including

- military providers.
- 2. **Routine laboratory surveillance of influenza like illness (ILI) to determine circulating virus types.**
- 3. Weekly summary of syndromic surveillance data from the Guam Memorial Hospital-Emergency Department (GMHA-ED) Patient Log Book.
- 4. Routine collection of animal morbidity and mortality data by Territorial Veterinarian.

Phase 2. Interpandemic Period. New virus type detected in animals but not in man.

Surveillance Activities:

- 1. Routine collection of morbidity data from health care providers.
- 2. Weekly summary of syndromic surveillance data from GMHA-ED Patient Log Book.
- 3. Routine collection of animal morbidity and mortality data by Territorial Veterinarian, and laboratory testing of unusual mortalities among reservoir species.
- 4. Coordinate with the DPHSS Communications Office; provide education and recommendations to health care facilities, health care providers, and the general public regarding the prevention, detection, and control of influenza.
- 5. **Routine laboratory surveillance of ILI.**

Phase 3. Pandemic Alert Period. New influenza strain in a human but no (or rare) human-to-human spread.

Surveillance Activities:

- 1. Routine collection of morbidity data.
- 2. Weekly summary of syndromic surveillance data from GMHA-ED Patient Log Book.
- 3. Routine collection of animal morbidity and mortality data by Territorial Veterinarian, and laboratory testing of unusual mortalities among reservoir species.
- 4. Continued coordination with the DPHSS Communications Office, to provide education and recommendations to healthcare facilities, health care providers, and the general public regarding the prevention, detection, and control of influenza.
- 5. **Routine laboratory surveillance of ILI.**

Phase 4. Small cluster(s) with limited human-to-human transmission anywhere.

Surveillance Activities:

- 1. Routine collection of morbidity data from health care providers.
- 2. Weekly summary of syndromic surveillance data from GMHA-ED Patient Log Book.
- 3. **Enhanced surveillance by assigning** personnel to assist in the daily collection and review of absenteeism data from:
 - a. Schools
 - b. Childcare Centers and Pre-Schools
 - c. Private clinics of their healthcare workers

- d. Government of Guam departments and agencies
- e. Facilities catering to senior population (Senior Citizen Centers, Adult Daycare, St. Dominic's, etc.).
4. In coordination with the DPHSS Communications Office, the issuance of general travel advisories (i.e., posters at airport, public service announcements, and press releases) to individuals traveling to affected destinations will be initiated. – **Move to Communication and Education**
5. **Routine laboratory surveillance of ILI.**
6. Inform physicians of procedures and begin laboratory testing for suspect local cases meeting CDC/WHO case definition.

Phase 5 (A). Larger cluster(s) of human-to-human transmission but still localized to a single country/region without direct flights to Guam.

Surveillance Activities:

1. **Routine** collection of morbidity data from health care providers.
2. Weekly summary of syndromic surveillance data from GMHA-ED Patient Log Book.
3. Continue **enhanced surveillance through** the daily collection and review of absenteeism data from:
 - a. Schools
 - b. Childcare Centers and Pre-Schools
 - c. Private clinics of their healthcare workers
 - d. Government of Guam departments and agencies
 - e. Facilities catering to senior population (Senior Citizen Centers, Adult Daycare, St. Dominic's, etc.).
4. Continue the issuance of general travel advisories (include FAQs) to individuals traveling to affected destinations. **Move to Communication and Education**
4. Continue to inform physicians of procedures and continue laboratory testing for suspect local cases meeting CDC/WHO case definition.
5. **Intensified laboratory surveillance of ILI, particularly those with a history of travel.**

Phase 5 (B). Larger cluster(s) of human-to-human transmission but still localized to a single country with direct flights to Guam.

Surveillance Activity:

Immediately enter "WHO Phase 6(A)"

Phase 6 (A). Pandemic period. Increased and sustained human-to-human transmission in multiple countries/regions near Guam (Philippines, Hawaii, Indonesia, Japan, or Taiwan) but not Guam.

Surveillance Activities:

1. **Routine** collection of morbidity data from health care providers.
2. Weekly summary of syndromic surveillance data from GMHA-ED Patient Log Book.
3. Office of Vital Statistics begins to report influenza **or ILI** deaths.

4. Continue **enhanced surveillance through** the daily collection and review of absenteeism data from:
 - a. Schools
 - b. Childcare Centers and Pre-Schools
 - c. Private clinics of their healthcare workers
 - d. Government of Guam departments and agencies
 - e. Facilities catering to senior population (Senior Citizen Centers, Adult Daycare, St. Dominic's, etc.)
5. Continue to inform physicians of procedures and continue laboratory testing for suspect local cases meeting CDC/WHO case definition.
6. In coordination with Customs and Quarantine, initiate airport surveillance for fevers, apparent illness (transported to hospital), and distribute "yellow arrival advisories" (based on SARS advisory) to passengers on flights from affected countries with direct flights to Guam.
7. Continue the issuance of travel advisories, and seek recommendation for the Governor's endorsement to include travel restrictions to affected destinations and the institution of "Fit for Travel", or equivalent, policy by the airlines. – **Move to Communication and Education**
8. **Using WHO/CDC definition of the pandemic illness, make it a reportable disease.**

Phase 6 (B). Pandemic reaches Guam.

Surveillance Activities:

1. Enhanced collection of morbidity data from health care providers.
2. Daily summary of syndromic surveillance data from GMHA-ED Patient Log Book.
3. Office of Vital Statistics continues to report influenza deaths (**useful for recording impact of pandemic**).
4. Continue the daily collection and review of absenteeism data from:
 - a. Schools
 - b. Childcare Centers and Pre-Schools
 - c. Private clinics of their healthcare workers
 - d. Government of Guam departments and agencies
 - e. Facilities catering to senior population (Senior Citizen Centers, Adult Daycare, St. Dominic's, etc.)
5. Most lab testing discontinued when local transmission is confirmed (**for treatment guidance only**).
6. Initiate "crowd avoidance" advisories and discourage gatherings with possible closure of schools, etc. Trigger points: ≥ 2 standard deviations in GMHA-ED ARD census, and absenteeism data.
7. In coordination with the DPHSS Communications Office and JIC, issuance of advisory on voluntary home isolation of sick persons and encouraging employers/supervisors to send ill employees home. – **Quarantine/Isolation ?**
8. In coordination with Customs and Quarantine, continue intensified joint airport surveillance for fevers, apparent illness (transported to hospital), and distribution of "yellow arrival advisories".
9. Continue travel advisories (including recommended travel restrictions and the

institution of “Fit for Travel”, or equivalent, policy).

Phase 6 (C). End of First Wave. Activity in initially affected regions/countries stopped; cases still occurring elsewhere and on Guam.

Surveillance Activities:

1. Enhanced collection of morbidity data from health care providers.
2. Daily summary of syndromic surveillance data from GMHA-ED Patient Log Book.
3. Office of Vital Statistics continues to report influenza deaths.
4. Review results of laboratory testing, and change criteria for submitting specimens, if advisable.
5. Continuance of “crowd avoidance” advisories.
6. Continuance of advisories for voluntary home isolation of sick persons.
7. Continue joint airport surveillance for fevers, apparent illness (transported to hospital) and distribution of “yellow arrival advisories”. Continue travel advisories.
8. **Laboratory testing of ILI for treatment guidance only.**

Phase 6 (D). End of First Wave. Activity in initially affected regions/countries stopped; cases much decreased or absent on Guam based on local surveillance data.

Surveillance Activities:

1. Routine collection of morbidity data from health care providers.
2. Weekly summary of syndromic surveillance data from GMHA-ED Patient Log Book.
3. Office of Vital Statistics continues to report influenza deaths.
4. Daily collection and review of absenteeism data continues. – **Delete this**
5. Discontinue routine laboratory testing; only test specimens from patients with appropriate travel history, new syndrome, etc.
6. Discontinue “crowd avoidance” advisories, permit opening of schools, public gatherings, etc.
7. Continuance of advisories for voluntary home isolation of sick persons.
8. Discontinue joint airport surveillance for fevers and apparent illness should be transported to hospital; continue to pass out “yellow arrival advisories” to passengers arriving from affected countries.
9. Modify travel advisories/restrictions based on countries of lower flu incidence.

Phase 6 (E). Second Wave. Second outbreak in a region, 3-9 months after first wave.

Surveillance Activity:

Repeat Phases 4 – 6 as appropriate

Post-pandemic Period. Pandemic transmission over, likely 2-3 years after onset; immunity to new virus type is widespread in the population.

Surveillance Activity:

Revert to inter-pandemic surveillance and control activities.

B. VACCINE DELIVERY

1. Introduction

The annual distribution and administration of vaccine for each winter's predicted strain of influenza is an "institutionalized" process involving both the public and private sectors. For this annual vaccination effort, the vaccine type is predicted by the CDC approximately 18 months before the anticipated influenza season. Two U.S. and one English manufacturer produce approximately 70 to 80 million doses over a six to eight month production period, with the supply ready for distribution during October and through the influenza immunization period of October through February.

Except for some children under 8 years of age, effective immunization is generally achieved with a single dose of vaccine. Approximately 90 percent 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).

The next influenza pandemic will pose a number of threats to this existing vaccine delivery and immunization process. Critical factors that will affect the current system of vaccine distribution include the following:

- a. The time period for the identification, production, and distribution of vaccine to prevent influenza will be greatly shortened, placing considerable burdens on all existing processes and procedures.
- b. Because time frames for planned production, distribution, and administration may be shortened, significant shortages and delays in vaccine availability will likely arise.
- c. In all likelihood, the target population for vaccination coverage will be extended well beyond the typical high-risk populations, with a potential goal of vaccinating the entire population.
- d. The influenza virus encountered during a pandemic will represent a new strain, with new hemagglutinin (HA) and/or neuraminidase (NA) antigens. Thus, to maximize vaccine efficacy, a second dose of vaccine given approximately 30 days after the initial administration may be necessary.

As a result of these concerns and considerations, local public health providers must develop a strategic plan for the management of vaccine delivery and administration during a pandemic. That plan must ensure that the distribution and allocation of available vaccine is completed in an organized and coordinated manner in order to maximize the public's health and safety.

The resources of local and the federal governments are utilized in sequential order to ensure a rapid and efficient response. Each level of government, upon requesting assistance from the next level of government, must ensure that local requirements

have exceeded local resources before requesting assistance from the next higher level.

2. Assumptions

When considering the challenges that must be addressed to ensure a smooth and efficient distribution of available vaccine, Guam has accepted CDC guidance and has based its plan for making vaccine available on the following assumptions:

a. Supply

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

b. Distribution Activity

Actual distribution activities cannot begin until the CDC, in cooperation with manufacturers, can offer an expected date for delivery of vaccine.

c. Shortages

The vaccine allotment may not be adequate to meet Guam’s entire need for vaccine. That is, vaccine shortages are expected. These shortages may be so extensive that the vaccine supply would not be adequate to protect all individuals even identified as having a critical role in managing the crisis.

d. Costs

Guam will need to absorb the “up-front” costs associated with the purchase, delivery, and administration of vaccine. 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, grants, or reimbursement activities to subsidize the costs associated with vaccine distribution. However, at a minimum, the territory should expect to absorb the costs associated with the redirection of personnel and should expect to use other financial resources to meet immunization objectives.

e. 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 and accurate documentation regarding the vaccine administration process and be able to identify vaccine recipients.

f. Centralized Control

Activity to properly manage the distribution and allocation of available vaccine will begin as soon as is reasonably possible. However, excessively short implementation periods, limited supply, or the emergence of a highly

incapacitated infrastructure may require Guam's executive leadership to issue a state of emergency. An Executive Order from the Governor will be needed for the deployment and use of personnel, supplies, equipment, materials, and facilities: this intervention would facilitate access to and use of expanded resources to meet vaccination objectives.

3. Interpandemic Infrastructure

As a base for disaster planning associated with vaccine delivery issues, Guam intends to rely to a large extent on the strength of its current distribution system, which is based in the DPHSS Immunization Program and the DPHSS Central Pharmacy. That infrastructure is currently used to efficiently distribute childhood vaccines. This distribution program has the systems, policies, and procedures, and these processes can be adapted to assist the territory in its pandemic vaccine distribution goals and objectives. Specifically, the current distribution system includes:

- a. DPHSS Immunization Program for management of an island wide distribution system.
- b. Adequate coolers and back-up power for proper storage of vaccine.
- c. Adequate supplies for repackaging vaccine as necessary.
- d. Established protocols and lines of communication.
- e. An existing communications infrastructure, which includes phone and fax accessibility for the community.
- f. An existing computer system for tracking inventory receipt and distribution.
- g. Trained professional and support staff, who are capable of preparing vaccine orders.
- h. Experience with providing rapid, accurate service with the ability to complete vaccine orders within the same day.

4. Pandemic Vaccine Supply and Distribution

a. Supply Needs versus Allocation

Guam had 154,805 residents in the year 2000. Guam's estimated population in 2005 is 168,564. If faced with a novel influenza virus, current estimates suggest that Guam could need over 110,000 doses of vaccine for the civilian population (including tourists) and 30,000 for the military population, with adequate lead-time, to fully immunize its population. This number may vary by season due to tourists and other visitors. However, due to anticipated shortages and delays in acquiring vaccine, the actual distribution will, in most likelihood, be substantially less than the amount needed for full population immunization.

b. Ordering and Distribution

Assuming that the need will exceed vaccine availability, Guam will submit its order to the CDC for the maximum allocation of vaccine. The CDC will assume responsibility for ensuring that the manufacturer ships the vaccine to

DPHSS Immunization Program. The DPHSS Immunization Program will be responsible for ordering the vaccines and distributing them to other sites.

The DPHSS (Immunization Program, Central Pharmacy and Laboratory, BPCS and BFHNS) estimate they would be able to store 104,000 (10 dose vial) doses of influenza if other vaccines and biologicals currently in storage were temporarily relocated.

5. DPHSS Activities

The local vaccine storage site will be based at the DPHSS central facility in Mangilao. The DPHSS Immunization Program has the experience and resources to properly store and secure vaccine as well as track its receipt and redistribution. DPHSS will be required to:

- a. Educate the local community in advance of a pandemic.
- b. Identify the maximum amount of vaccine that can be accepted under emergency conditions for short-term storage.
- c. Augment standard procedures to assure the biological safety and physical security of the vaccine within the health department.
- d. Identify the community partners who will work with the health department to administer vaccine to targeted populations.
- e. Adhere to procedures to accurately document the receipt and re-distribution of vaccine. This documentation should, at a minimum, indicate the amount and date the vaccine is received, as well as the amount, date, and method of redistribution to the identified community partner.
- f. Modify as necessary the system for notifying community partners. Notice will include timing for the local availability of vaccine for delivery.
- g. Assure that the redistribution of vaccine will occur prior to receiving the next capacity shipment so that no vaccine is lost because of storage shortages.

The DPHSS Immunization Program will continue shipments of vaccine to DPHSS. Shipments may occur weekly to monthly depending on vaccine supply and usage. 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 DPHSS will be detailed. These staff, regardless of primary duties and authority, will be responsive to Immunization Program staff responsible for vaccine distribution and management. Other DPHSS staff participating in the Guam Strategic National Stockpile Program will be activated to assist with operations as well.

The redistribution plan, includes the following provider groups as potential partners for vaccine redistribution and administration:

Vaccine redistribution <i>and</i> Administration	Administration Only
BFHNS/BPCSS (NRCHC and SRCHC)	School Health Counselors
Guam Memorial Hospital Authority	EMT-I or EMT-Paramedic
Military Personnel (Physicians and Nurses)	Department of Mental Health

	and Substance Abuse Nurses
Private Medical Providers, as appropriate	Guam Nurses Association Registered Volunteers
Nursing Homes and Assisted Living Facilities	Certified Medical Assistants
Urgent Care Centers and Walk-in Clinics	
Home Health Care Providers	
UOG College of Nursing and Health Sciences (Junior and Senior Nursing Students under Faculty supervision)	
GCC and UOG Student Health Center	
Pharmacists	

The recruitment of community partners will depend on the resources available to the community. In addition, the actual coordination with community partners may be further refined based on the populations that are targeted for actual disease management during a pandemic.

In working with community partners that will administer vaccine during a pandemic, DPHSS must ensure that these partners understand their roles and the expectations associated with this partnership. Specifically, the community partner must be prepared to accept and store their allotment of vaccine and must ensure that vaccine administration is properly documented for accountability purposes, and in the event that reimbursement becomes available. Finally, the personnel resources devoted by community partners should be considered a public health contribution to the community, rather than a cost-reimbursable or profit-making activity.

During an influenza pandemic, clinics and organizations that believe they are not receiving their fair share of vaccine will be directed to contact the DPHSS Bureau of Communicable Disease Control’s Immunization Program. That office will assume responsibility for managing calls and requests from the community to consider amendments to the allocation and distribution sites.

6. Targeted Recipient Groups

a. Establishing Target Recipient Groups

In view of the likely vaccine shortage, the United States Public Health Service, in conjunction with various advisory committees (CDC, WHO, ACIP, AAP, etc.) has formulated draft recommendations for a rank-order list of high priority target groups for vaccination. The order of these groups is based on a number of factors including the need to maintain those elements of community infrastructure that are essential to carrying out the pandemic response plan. Other factors include limiting mortality among high-risk groups, the reduction of morbidity in the general population, and the minimization of social disruption and economic losses. **The draft rank-order list is subject to change - potentially on short notice -depending on the epidemiological and clinical features exhibited by the actual pandemic**

strain. Plans based on these draft recommendations should contain a great deal of flexibility in order to be responsive both to the final recommendations and changing conditions during the pandemic.

b. Rank-Order List of High-Risk Groups

- 1) Healthcare workers and public health personnel involved in the distribution of vaccine.
- 2) Persons responsible for community safety and security, e.g., police, firefighters, EMTs, Customs and Quarantine Officers, military personnel, Guam Army National Guard, Guam Air National Guard, Park Rangers and “local responders” not included in first priority group.
- 3) Other highly skilled persons who provide essential community services whose absence would either pose a significant hazard to public safety or severely disrupt the pandemic response effort (e.g., persons who operated telecommunications or electric utility grids). Members of these groups are likely to vary widely and are highly influenced by local circumstances.
- 4) Persons traditionally considered being at increased risk of severe influenza illness and mortality, as currently defined by the Advisory Committee on Immunization Practices:

Tier	Priority Group
1A	Persons aged \geq 65 years with high-risk medical conditions Residents of nursing homes and long-term care facilities
1B	Persons 2-64 of age with high-risk medical conditions Persons aged \geq 65 years without high-risk medical conditions Children aged 6-23 months Pregnant women (past first trimester)
1C	Household contacts and out-of-home caregivers of children aged < 6 months.
2	Household contacts of persons with high-risk medical conditions and household contacts of persons in the first three groups Healthy persons aged 50-64 years
3	Persons aged 2-49 years without high-risk conditions

Note: Based on vaccine availability, immediate household members of high-risk groups 1 through 3 will be vaccinated concurrently.

c. General Considerations

Both the public and private sector will be mobilized to administer whatever vaccine is available. The actual organization of the vaccination program, in both the public and private sectors, will have to be customized for the community and target group and will depend on the extent and availability of the available infrastructure and resources. 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 the plan.

C. LABORATORY PLAN

Phase 1 and 2: Interpandemic Phase Actions.

Laboratory Activities:

1. Maintain inventory of laboratory supplies
2. Maintenance of laboratory equipment.
3. Establish guidelines for collection and transport of human specimens for the laboratory diagnosis of pandemic influenza infection.
4. Establish guidelines to notify physicians of laboratory testing and criteria for submitting specimens.
5. a) Purchase at least 4 kits (25 tests per kit) of influenza A & B.
b) Maintain 1 kit at all times.
6. Establish a list of reference laboratories for the confirmation of H5N1 strain.

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Phase 3: Pandemic Alert Period. New influenza strain in a human, but no (or rare) human-to-human spread.

Laboratory Activities:

1. Local physicians notified of laboratory testing available and criteria for submitting specimens.
2. Laboratory testing for influenza A and B of human patients with symptoms of the flu and history of contact to infected animals.
3. If positive for influenza A or B specimen will be sent to CDC for pandemic influenza testing.

Phase 4: Small cluster(s) with limited human-to-human transmission anywhere.

Laboratory Activities:

1. Continue laboratory testing for local cases meeting CDC/WHO case definition.
2. Review inventory of laboratory supplies and procure as needed.

Phase 5: Larger cluster of human-to-human transmission, but still localized to single country/region without direct flights to Guam.

Laboratory Activities:

1. Continue laboratory testing for local cases meeting CDC/WHO case definition.
2. Review inventory of laboratory supplies and procure as needed.

Phase 6(A): Pandemic period. Increased and sustained human-to-human transmission in multiple countries/regions near Guam (Philippines, China, Indonesia, Japan, Taiwan, Hawaii), but not Guam.

Laboratory Activities:

1. Continue laboratory testing for local cases meeting CDC/WHO case definition.
2. Review inventory of laboratory supplies and procure as needed.

Phase 6(B): Pandemic reaches Guam.

Laboratory Activity:

Local physicians notified of laboratory testing available, criteria for submitting specimens may be altered to avoid laboratory overload, most testing discontinued when local transmission is confirmed.

Phase 6(C): End of First Wave. Activity in initially affected regions/countries stopped; cases still occurring elsewhere and on Guam.

Laboratory Activity:

Review results of laboratory testing; change criteria for submitting specimens if necessary.

Phase 6(D): End of First Wave. Activity in initially affected regions/countries stopped; cases much decreased or absent on Guam based on local surveillance data.

Laboratory Activity:

Discontinue routine laboratory testing, only test specimens from patients with appropriate travel history, new syndrome, etc.

Phase 6(E): Second Wave. Second outbreak in a region, 3-9 months after initial wave.

Laboratory Activity:

Repeat Phases 4-6 as appropriate.

Postpandemic Period: Pandemic transmission over, likely 2-3 years after onset; immunity to new virus type is widespread in the population.

Laboratory Activity:

Revert to interpandemic surveillance and control activities.

D. ANTIVIRAL AGENTS

1. Introduction

In recent years, new antiviral agents to prevent or treat influenza infections have been developed. Two classes of drugs are available (the M2 inhibitors such as amantadine and rimantadine and the neuraminidase inhibitors such as oseltamivir and zanimirvir). These drugs have been licensed for the prevention and treatment of human seasonal influenza in some countries.

However, initial analysis of viruses isolated from the recent human cases of A/H5N1 indicates that many of these viruses currently are resistant to the M2

inhibitors. In addition, only the neuraminidase inhibitors have been shown, in animal laboratory tests, to be effective against influenza virus A/H5N1. At this time, there is extremely little real world clinical experience with use or effectiveness of antiviral drugs against H5N1 viral infections in humans. Among the neuraminidase inhibitors, the only drug easily deliverable (orally in capsules) is oseltamivir, known in its only commercial form as *Tamiflu*®.

Other antivirals, such as amantadine, have not shown effectiveness against A/H5N1 in laboratory settings, but could potentially have some effectiveness against another new emerging strain.

Prophylaxis

Antiviral drugs used for prophylaxis are given to people who are not infected and who are not ill. The purpose of prophylaxis is to try and prevent the development of severe pandemic disease in people who are potentially exposed to pandemic influenza.

Tamiflu® can be offered to selected staff who are needed by an organization to maintain its essential functions. The current prophylactic regimen is **one tablet of 75mg per day**. The upper limits for safe use of *Tamiflu*® as prophylaxis is unknown. However, it is assumed that based on past pandemics and epidemics that in local areas, the duration of elevated risk of exposure to the pandemic virus in an area would be 6 weeks. Use of antiviral agents for prophylaxis is extremely resource consuming. Therefore, pre-exposure prophylaxis should be limited to maintenance of essential functions of an organization. Since pandemic influenza is an infection transmitted primarily by respiratory droplets, during a pandemic, the risk of infection will be relatively similar for most people except persons such as medical workers, who will be at highest risk because of their frequent contact with many ill persons.

Tamiflu® is licensed for up to six weeks of continuous use for prophylaxis.

As an alternative to daily prophylaxis, antiviral agents could be reserved for treatment of persons if fever or other symptoms of infection develop. This approach could stretch the supply of available antiviral agents, but also is more complicated logistically to implement and might be less effective theoretically in preserving maintenance of essential functions. Nonetheless because supplies of antivirals during a pandemic situation are expected to be very limited, in many situations this use of *Tamiflu*® may be the most feasible option.

Treatment

a) Of all persons: In symptomatic patients suspected of having pandemic influenza, *Tamiflu*® can be administered as treatment. Current recommendations for treatment, based on treatment against seasonal influenza, is two **75mg capsules a day** (total of 150mg per day) for 5 days. There are no data for use for children below the age of 1 year. Oral suspension for children could be administered up to

40kg by and which adult dosage can be used. **For maximum effect, the drug should be started within 48 hours of onset of symptoms.** During a pandemic situation the possibility to test an individual patient for influenza infection will be extremely limited and therefore decisions about whether to treat or not will depend upon clinical findings. Moreover, current recommendations on the amount and duration of treatment may change as more information becomes available about the effectiveness of dosages of antiviral agents against pandemic influenza.

b) Post-exposure treatment: Theoretically if the local supply is considered adequate, then Tamiflu® could be provided to a person who does not have symptoms but who has had close and unprotected contact with another person who is suspected or confirmed to have pandemic influenza. In this situation, it will not be clear if the exposed person is infected. However, giving that person an antiviral agent theoretically could potentially protect the person from infection or reduce the severity and duration of the disease if the person has become infected. The drug would be administered in treatment doses as stated above. The effectiveness or efficiency of this approach in preventing illness is theoretical, however, and has not been demonstrated. Moreover, for most people it will not be know if they were “exposed” to pandemic influenza and **during a widespread pandemic, it will not be feasible to give post-exposure treatment to most non-ill contacts. In most situations, it is expected that most Tamiflu® will be used for treatment of persons with febrile or respiratory illnesses rather than prophylaxis.**

2. Assumptions

A sufficient quantity of these agents would have to be available to the DPHSS Central Pharmacy in order for any planned effectual use of these medications to take place.

3. Infrastructure and Distribution

A similar method to that described in the vaccine delivery part of this plan would be used to distribute antiviral medications. Key to any distribution plan in determining where the priorities are for places to distribute the medications would be specifics as to the exact ways the antivirals are recommended for use.

While the primary focus of the plan is on the distribution of vaccine for the prevention of a novel influenza virus, the CDC anticipates that a limited amount of antivirals will be available for the treatment of the disease. Their estimates suggest that nationally, adequate antiviral stock will be available to treat from 500,000 to 3 million persons per month. In addition to the anticipated limited supply, the administration of antivirals as either a prophylaxis or treatment regimen is rigorous, requiring approximately 60 doses per month to prevent illness and approximately 10 doses for therapeutic intervention. Therefore, the DPHSS Central Pharmacy will control distribution and use of any antivirals. The DPHSS and the PIC involved in implementing this plan identify those individuals and groups of individuals who shall be eligible to receive these agents. 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 leadership and persons responsible for the safety and security of the communities most affected by the novel virus.

4. General Issues

Other considerations for antivirals include use in areas where there is a relative vaccine shortage and sufficient supplies of antiviral agents are available to ameliorate this until adequate vaccine supplies could become available. Antivirals could also serve to treat health care workers and other critical classes of individuals between vaccine doses. Again, these uses are predicated on adequate supply of antivirals. Because no assumption can be made of adequate resources in this regard, there is no provision for use of antivirals in a prophylactic way because of the increased consumption of supplies compared to treatment. This will remain so unless more information concerning cost effectiveness shows an alteration in this balance or unless supplies become so very adequate that this higher rate of usage can be entertained with some prospect of efficacy. Even in the scenario of adequate supplies and the ability to provide these agents widely, there is the specter of emergence of viral resistance and the transmission of resistant strains. It cannot be overemphasized that antivirals, no matter how well supplied and distributed, can never be assumed to be a substitute for proper vaccine protection.

E. COMMUNICATIONS AND EDUCATION

The goal of the Communications and Education section is to ensure efficient flow of accurate and consistent information during a pandemic. It is designed to facilitate communications among local, federal and international agencies about influenza activity and circulating strains of influenza virus, and about recommendations for and availability of, vaccines and antivirals, and other recommended health measures. This plan also describes the system for providing information to the general public through the media and other information outlets.

1. Assumptions

- a. Dissemination and sharing of timely and accurate information among DPHSS and government officials, medical care providers, the media and the general public will be one of the most important facets of the pandemic response.
- b. Different types of information will have to be communicated, often to different audiences.
- c. There will be widespread circulation of conflicting information, misinformation, and rumors. Communication must be coordinated among all relevant agencies to ensure consistent messages to the general public.
- d. There will be a great demand for accurate and timely information regarding:
 - 1) Circulation of a pandemic strain
 - 2) Disease burden (incidence, prevalence, hospital admissions)
 - 3) Disease complications and mortality
 - 4) Disease control efforts, availability and use of vaccines, antivirals and other preventive and treatment measures
 - 5) “Do’s and Don’ts” for the general public

- 6) Maintenance of essential community services
- e. There will be a special need for information for the general public about how and why a Priority Group List for receipt of vaccine was developed.
 - 1) Public education will be an important part of the immunization campaign.
- f. Certain groups will be hard to reach, including people whose primary language is not English, people who are homeless, people who are hearing and visually impaired, etc.
- g. Demand for information by health care providers will be so great that existing materials for educating health care providers will have to be expanded during the interpandemic period.

2. DPHSS Crisis and Emergency Risk Communications

During a pandemic, the DPHSS Director's Communications Office will be responsible for informing the public through the media using the Guam Department of Public Health and Social Services Crisis and Emergency Risk Communications Manual.

The DPHSS Crisis and Emergency Risk Communications Guidelines are contained in a working document that describes the means, organization and process by which the DPHSS Communications Office will provide timely, accurate and useful information and instructions to the public before, during and after a public health threat or emergency.

These guidelines cover two areas of crisis and emergency risk communications with the DPHSS:

- a. Direct communication from the DPHSS through the news media; and
- b. Information dissemination to educate the public regarding exposure risks and effective public response.

One of the goals of the Guam Pandemic Influenza Plan is to educate the public, health care professionals, policy makers, partner organizations and the media about influenza viruses; their unique ability to cause sudden, pervasive illness in all age groups on a global scale; and the need for strategies by which influenza-related morbidity, mortality and social disruption might be reduced. This goal is carried out through:

- a. Providing accurate, comprehensive, consistent and easily accessible information to the public, health care providers, policy makers and the media;
- b. Rapidly addressing the public's questions;
- c. Helping to minimize false rumors and misinformation;
- d. Reassuring the public that the public health system can respond and manage effectively
- e. Coordinating communication efforts with federal, regional, and local partners.

3. Responsibilities for Communication during a pandemic

During the initial phases of the pandemic, the DPHSS Communications Office will be briefing the Governor's Communications Office, and once the EOC is activated, they will be working with the JIC to effectively communicate to the public.

All media inquiries are to come to the DPHSS Communications Office. The Risk Communication Officer will identify the appropriate subject matter expert to answer questions. Chief spokespersons for the DPHSS in relation to pandemic influenza are:

- a. The Director
- b. The Chief Public Health Officer
- c. The Epidemiologist
- d. BCDC Administrator
- e. DPHSS Medical Director

News release template will be prepared, whereby the latest bits of information can be filled-in and the releases can be sent out quickly. The DPHSS Communications Office will also have members readily available to work to prepare talking points for the DPHSS Director and the Governor during the pandemic.

4. Pandemic Phases

Phases 1 & 2 – Interpandemic period

1. *No new influenza virus subtypes have been detected in humans. Influenza virus subtype that has caused human infection may be present in animals; if so, the risk of human infection or disease is considered to be low.*
2. *No new influenza virus subtypes have been detected in humans. However, circulating animal influenza virus subtype poses substantial risk of human disease.*

Objectives:

- a. To ensure that mechanisms exist for routine emergency communications between health authorities, within and between government agencies, with other organizations likely to be involved in a pandemic response, and with the public.
- b. To maintain an appropriate level of awareness among government and other essential agencies.

- c. To ensure collaborative working relationships with the media regarding epidemics, including the roles, responsibilities and operating practices of public health authorities.
- d. To ensure that appropriate information is shared rapidly among health authorities, other partners and the public.
- e. To ensure that mechanisms exist for coordinating communications with the animal health and public health sector.

Activities:

a. Public Information Dissemination:

DPHSS Communications Office staff will:

- 1) Meet with BCDC staff and the Epidemiologist to maintain a proficient level of understanding of the unfolding influenza pandemic.
- 2) Assess readiness to meet communication needs in preparation for pandemic influenza.
 - a) Regular review and if necessary, updates to the Crisis and Emergency Risk Communication Plan.
 - b) Check availability of cell phones, laptops, copiers, fax machines, phone lines, pagers, radios, staff, etc.
 - c) Deficiencies will be given priority for correction.
- 3) Identify appropriate contacts to be notified of pandemic influenza activity:
 - a) Government agencies Public Information Officer (PIO's) or other designated contacts.
 - b) All healthcare agencies (hospital, long-term care facilities, health clinics, etc.)
 - c) Other appropriate organizations (Red Cross, etc.)
 - d) Media
 - e) Guam Homeland Security Office/Office of Civil Defense
- 4) Consult with BCDC staff and the Epidemiologist to identify and maintain a list of target audiences for messages that pertain to pandemic influenza.
- 5) Issue cautionary announcements and share relevant information. Such information shall include, but not be limited to, what is known about pandemic influenza, how DPHSS is monitoring influenza activity, and what steps are being or will be taken to prevent or slow the spread of the influenza and minimize its impact.

- 6) Develop materials and messages for the general public, including rationale for priority groups for vaccines and antivirals, and measures to be taken until vaccine and antivirals are developed.
- 7) Identify and develop relationships with public and private sector stakeholders including healthcare providers who are able to reach special populations and provide them information regarding pandemic influenza.
- 8) Work with subject matter experts to develop key messages, communication products, and other resources to be used in the event of influenza pandemic.
- 9) Develop public information policy and information clearance protocols specific to pandemic influenza.
- 10) Assure that public information dissemination is part of any exercise or training for pandemic influenza response.

b. Communication with Healthcare Professionals:

- 1) Issue Identification: Health issues and concerns that will or may need to be addressed for healthcare professionals regarding pandemic influenza will be identified by the DPHSS Communications Office staff.
- 2) DPHSS Communications Office staff will consult with BCDC staff and the Epidemiologist to develop and maintain messages appropriate to specific audiences. A separate “package” of issues and messages will be developed as needed on issues particular to the group. Information may include:
 - a) Vaccine development and supply
 - b) Isolation and quarantine recommendations
 - c) Antiviral use
 - d) Prevention and infection control methods
 - e) Contact investigation
- 3) The Distance Learning Section will be utilized to conduct training of health care and public health personnel who would be involved in a pandemic should it occur.

Phase 3 – Pandemic Alert

Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.

Objectives:

- a. To communicate openly with the public regarding possible outbreak progression and contingencies to be expected.
- b. To ensure rapid sharing of appropriate information among healthcare providers, other relevant government departments, stakeholders and other partners, including what is known and what is unknown.

Activities:**a. Public Information Dissemination:**

Continue activities initiated in previous phases. DPHSS Communications Office staff will:

- 1) Identify spokespersons and subject matter experts; provide training in media relations, crisis and emergency risk communications, spokesperson skills.
- 2) Provide regular updates and offer opportunities to address questions (e.g., in partnership with the news media, community forums, via DPHSS website, through meetings with communication partners, etc.).
- 3) Educate the general public on other control measures that can be taken by individuals until such time when vaccine is available for everyone (e.g., avoiding crowds staying home when sick). Many of these measures should also be encouraged even after an individual has been vaccinated. If the vaccine will not be able to be used in certain individuals (e.g. children younger than 6 months of age, persons with absolute medical contraindications), special emphasis will be given on how to prevent influenza in these individuals.
- 4) Remain cognizant that individuals often believe events that occur after vaccinations are due to the vaccine. DPHSS Communications Office staff will include this concept in the education efforts, emphasizing the fact that events following vaccination are not necessarily caused by the vaccine.

- 5) Prepare the public, through education, for the development of post-vaccination cases of respiratory illness which are likely to be viewed as vaccine failure.
- 6) Distribute practical information as it becomes relevant, such as travel advisories, infection control measures, and information about potential rationing of antiviral agents and first-generation vaccines; disseminate advisories people traveling to affected areas, recommending they avoid contact with live (or dead) poultry.
- 7) Reinforce and verify ways to help people protect themselves, their families and others.
- 8) Formalize and communicate public information policy and information clearance protocols specific to pandemic influenza.
- 9) Pre-clear as much information as possible, including key messages, talking points, backgrounders, fact sheets, FAQs, news release templates.
- 10) Monitor news media reports and public inquiries to anticipate and address public information needs, including information to counter misconceptions of specific populations.
- 11) Help to incorporate information regarding pandemic influenza into the DPHSS website.
- 12) Identify languages used on Guam and arrange for translation services.
- 13) Monitor information from CDC Communications Office to assess national response.

Note: CDC has committed to the preparation of press materials, including bulletins and newsletters; however, pursuing the preparation of similar material might be prudent and would provide material in a timelier manner at the onset of such an event.

Phase 4 & 5 – Pandemic Alert

- 4. Small cluster(s) with limited human-to human transmission.*
- 5. Larger cluster(s) but human-to-human spread is still localized to a single country/region.*

Objectives:

- a. To ensure rapid sharing of appropriate information among health authorities, other relevant government departments, stakeholders and other partners.
- b. To prepare the public stakeholders and partners for a possible rapid progression of events and possible contingency measures, and possible disruptions to normal life.

Activities:**a. Public Information Dissemination:**

Continue activities initiated in previous phases. DPHSS Communications Office staff will:

- 1) Emphasize in public briefing statements and written materials how People can protect themselves, including hand washing and respiratory etiquette.
- 2) Continue to monitor news media reports and public inquiries to anticipate and address public information needs.
- 3) Identify special communication needs populations (defined as those people who will not or cannot receive messages via mass media), prepare and translate appropriate messages, and disseminate information through appropriate communication channels.
- 4) Prepare messages for news conferences or briefings as needed to effectively communicate with the media and the public.
- 5) Issue a Travel Advisory if warranted. Notify GIAA, Guam Customs and Quarantine Agency, U.S. Customs and Border Protection, Guam Visitors Bureau, Guam Hotel and Restaurant Association, Chamber of Commerce and others to ensure widespread notification. Assist communication efforts with travel and tourism organizations to ensure messages on influenza precautions are understood (see Appendix F).

b. Communication with Healthcare Professionals:

- 1) Communication efforts will continue as described in Phases 1 and 2. Modification will be made as appropriate.
- 2) Coordinate the notification of all appropriate agencies, and healthcare professionals that the virus has been identified in human-to-human transmission. Phones, pagers, faxes, email or other redundant communication systems will be used as alternative forms of notification.
- 3) DPHSS Communications Office staff will work with BCDC staff and the Epidemiologist to keep the public, healthcare providers and key stakeholders fully informed as the threat of a pandemic nears. If the Health EOC is partially activated, the Risk Communication Officer or his/her designees joins the health command staff in ICS as lead, directing communication activities.
- 4) DPHSS Communications Office staff will ensure that communication messages are available for health care providers and health care facilities regarding the rationale for priority groups for vaccine and antivirals, and measures to be taken until such are available (if the current situation warrants this).
- 5) Distance Learning Delivery: It is expected that the CDC will call for national satellite broadcasts dealing with the emergency. The Distance Learning Coordinator (DLC) with the assistance of partners (UOG PEACESAT) will assure that appropriate communication assets are employed to receive the programming, record it and deliver it to responders across Guam.

Phase 6 – Pandemic Period

6.(a) Increase and sustained human-to-human transmission in multiple countries/regions near Guam (but not Guam).

6.(b) Pandemic reaches Guam.

Objectives:

- a. To ensure public access to regularly updated official national sources and focal points for credible, consistent information related to the pandemic.

- b. To maintain open and accessible channels for advice to the public on specific subjects (e.g., travel, social gatherings, etc.).
- c. To achieve public acceptance and support for national responses and contingency measures.
- d. To ensure rapid sharing of information regarding progress of the pandemic among health authorities, other relevant government departments, stakeholders and other partners.

Activities:

a. Public Information Dissemination:

- 1) The Office of Civil Defense, with the DPHSS and the Governors Communications Office will set up the JIC to efficiently provide and disseminate accurate and consistent information to the general public.
- 2) The JIC will begin to hold necessary news conferences each day. News conference participants may include:
 - a) Governor or Lt. Governor
 - b) DPHSS Director
 - c) Administrator of the Office of Civil Defense
 - d) Guam Homeland Security Advisor
 - e) Other Cabinet officials, congressional delegation or legislative leadership
- 3) The JIC will interface with appropriate federal agencies.
- 4) DPHSS Communications Office staff will prepare to obtain and track information daily on the numbers and location of new cases, hospitals with pandemic influenza cases, etc. for the JIC.
- 5) DPHSS Communications Office staff will tailor messages to special communication needs populations (defines as those people who will not or cannot receive messages via mass media), prepare and translate appropriate messages, and disseminate through appropriate communication channels for the JIC.
- 6) DPHSS Communications Office staff will continue to monitor news media reports and public inquiries to anticipate and address public information needs.

b. Communication with Healthcare Professionals:

- 1) Human-to-Human transmission confirmed: DPHSS Communications Office will be responsible to communicate pandemic response updates and recommendations to targeted health professionals or agencies that serve healthcare professionals.
- 2) Distance Learning Delivery: It is expected that the CDC will call for national satellite broadcasts dealing with the emergency. The Distance Learning Coordinator (DLC) with the assistance of partners (UOG PEACESAT) will assure that appropriate communication assets are employed to receive the programming, record it and deliver it to responders across Guam.

*Post pandemic period**Return to Interpandemic period.***a. Public Information Dissemination:**

DPHSS Communications Office staff will:

- 1) Assess effectiveness of public information (i.e. surveys) messages.
- 2) Assess effectiveness of information provided to healthcare providers.
- 3) Update the public through regular news releases and news updates as needed about the current situation.
- 4) Update messages about the current pandemic influenza aftermath in coordination with the CDC information.
- 5) Update fact sheets, flyers and frequently asked questions in coordination with CDC information.
- 6) Update DPHSS web page as necessary.

b. Communication with Healthcare Professionals:

- 1) Distance Learning Delivery: An after action analysis of the effectiveness of distance learning programming and delivery will be conducted by the DLC in order to improve delivery of services.

- 2) Communication efforts will continue to inform healthcare professionals about the end of pandemic.
- 3) DPHSS Communications Office staff will convene a meeting with healthcare partners to discuss communications strategy and conduct a process review. Modifications will be made as necessary.

E. EMERGENCY RESPONSE

The Guam Office of Homeland Security/Office of Civil Defense prepares and maintains a comprehensive Guam Emergency Response Plan, which provides for an emergency management system that includes a broad range of preparedness, response, recovery and mitigation responsibilities. However, pandemic influenza is likely to pose unique challenges that may not be addressed in current emergency management plans. Due to this unique situation, emergency management plans should incorporate a pandemic influenza plan as an appendix to the existing plan.

Thus, the Emergency Response section describes the systems that will be used to ensure maintenance of essential medical and other community services in the event of a pandemic.

DURING THE INTERPANDEMIC AND PANDEMIC ALERT PERIODS (Phase 1 through 4):

A. Estimate the Need for Health Care Services:

1. Determine existing capacity.
2. Determine the reserve capacity
3. Estimate the potential impact on Guam of an Influenza Pandemic, using *Flu Aid*, *Flu Surge*, or other computer programs.
4. Determine high-risk groups.
5. Develop preventive action recommendations.
6. Develop a list of health related needs during a pandemic.
7. Develop a contingency plan to address inadequacies in the infrastructure.

B. DPHSS Response

1. Existing Healthcare Infrastructure

The DPHSS will update and/or inventory medical supplies, facilities and services. DPHSS will collaborate with appropriate agencies to identify and rapidly disseminate the island-wide inventory. The Chief Public Health Office will have inventory of the following services/items:

- a. Medical Personnel – including but not limited to:
 - 1) Currently licensed physicians
 - 2) Physician Assistants
 - 3) Advanced Practice Nurses
 - 4) Registered Nurses, including school nurses
 - 5) Licensed Practical Nurses, including school nurses
 - 6) Respiratory Therapists
 - 7) Radiology Technicians
 - 8) Certified Nurse Assistants
 - 9) Nursing and technical students
 - 10.) Medical Assistants
 - 11.) Dentists and Dental Assistants (for identification of victims in a mass fatality situation)
 - b. Number of beds (GMHA, SNU, alternative care sites (CHCs))
 - c. Number of ICU beds
 - d. Number of isolation beds in negative air pressure rooms
 - e. Number of ventilators
 - f. Pharmacies, pharmacists, pharmacy technicians
 - 1) Contingency supply of antibiotics
 - 2) Contingency supply of antivirals
 - g. Contingency medical care facilities (i.e. group housing facilities, unused hotels)
 - h. Personal protective equipment (PPE)
 - i. Specimen collection and transport materials
 - j. Mortuary/funeral services
 - k. Social Services/Mental Health Services/Faith Services
 - l. Sources of medical supplies (syringes, gauze, bandages)
2. In coordination with the DPHSS Communications Office, develop contingency plans to provide medical care information for people sick at home.

A hotline will need to be established for families who will need information about how to take care of sick family members at home and guidelines regarding when to seek professional medical care.

3. In coordination with the Office of Civil Defense, develop contingency plans to maintain other essential community services DPHSS will develop lists of essential personnel based on national guidelines and local needs. These lists will be used to develop priority lists for vaccinations and/or antivirals if they are available. DPHSS will also maintain a list of essential community services along with contact personnel. In addition, DPHSS will prepare a list of back up personnel/replacements to these personnel in order for essential community services to continue.

DURING THE PANDEMIC PERIOD (Phase 5 through 6D)

1. Attend regular meetings of the Pandemic Influenza Coordinating Committee.
2. When the EOC at the Office of Civil Defense is activated, assume duties as Operations Section Chief to coordinate response activities (see Incident Command System organizational chart in Appendix).

INTERWAVE AND POSTPANDEMIC PERIODS (Phase 6D and post 6E)

1. Return to normal operational levels and transition Operations Section Chief responsibility back to the Office of Civil Defense.

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Appendix B

AVAILABLE PERSONNEL WITHIN DPHSS AND OTHER RESOURCES TO ASSIST IN THE PANDEMIC INFLUENZA RESPONSE

Personnel

Chief Public Health Office

- Chief Public Health Officer
- Epidemiologist
- Planner
- Bioterrorism Coordinator
- EMS Administrator
- MCH Coordinator
- Vital Statistics staff (death certificate and burial/transport permit assistance)
- Clerical and support staff

Bureau of Communicable Disease Control

- BCDC Administrator
- CDC I, II, and IIIs
- Health Educator
- Community Program Aides
- Computer Programmer
- Support Staff

Bureau of Family Health and Nursing Services

- Nursing Administrator
- Nurse Practitioners
- Registered Nurses
- Nurse Aides
- Support Staff

Bureau of Primary Care Services

- Health Services Administrator
- Staff physicians
- Registered Nurses
- Nurse Practitioner
- Nurse Midwife
- Nurse Aides
- Pharmacist
- Pharmacist Technicians
- Laboratory staff
- Support staff

Bureau of Professional Support Services Staff

- Health Services Administrator
- Chief Pharmacist
- Pharmacy Technicians
- Laboratory Medical Pathologist
- Laboratory Supervisor
- Laboratory staff
- Medical Social Workers
- Medical Records staff
- Clerical and support staff

Other DPHSS Staff:

- Division of Environmental Health
- Facilities and Maintenance
- Health Professional Licensing Office
- Division of Senior Citizens
- Division of Social Services and Welfare

Other Resources

American Red Cross

Citizens Corp Committee

Guam Hotel and Restaurant Association

Guam Medical Society

Guam Nurses Association

Guam Association of Social Workers

Appendix C

COORDINATION OF GUAM PANDEMIC INFLUENZA PREPAREDNESS WITH OTHER GOVERNMENT, FEDERAL AND INTERNATIONAL AGENCIES

Government

Department of Administration
Department of Agriculture
Department of Mental Health and Substance Abuse
Guam Community College
Guam Customs and Quarantine Agency
Guam Fire Department/EMTs
Guam International Airport Authority
Guam Memorial Hospital Authority
Guam Police Department
Guam Public School System
Guam Visitors Bureau
Office of Civil Defense/Homeland Security
Office of the Governor
University of Guam

Federal

U.S. Centers for Disease Control and Prevention (CDC)
Department of Health and Human Services (DHHS)
Department of Homeland Security
Federal Emergency Management Agency (FEMA)
Food and Drug Administration (FDA)
United States Department of Agriculture (USDA)
U.S. Customs and Border Protection
Honolulu Quarantine Station

International

Secretariat of the Pacific Community (SPC)
World Health Organization (WHO)

Appendix D

INFECTION CONTROL RECOMMENDATIONS

Healthcare Facilities:

1. Place suspect cases on droplet and standard precautions (see CDC Guidelines on Prevention of Nosocomial Pneumonia at http://www.cdc.gov/ncidod/hip/pneumonia/pneu_mmw.htm.)
2. All persons entering isolation rooms should wear a surgical mask and practice good hand hygiene (see CDC guidelines for hand hygiene in healthcare settings at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5116a1.htm>.)
3. Healthcare workers displaying influenza-like symptoms should be removed from direct patient care when possible.
4. Visitors with febrile respiratory illnesses should be restricted from visitation as much as possible.
5. Patients and staff should cover their mouths and noses with tissue when coughing or sneezing, dispose of used tissues immediately after use and wash hands after using tissues.
6. Restrict elective admissions in hospitals.
7. Isolation should be initiated at symptom onset and continue for duration of illness (usually 4 to 5 days).

At Home:

1. Persons should remain at home during their illness (usually until 4 to 5 days after symptoms appear).
2. Restrict visitors to the home as much as possible.
3. Persons entering homes of suspect influenza cases should wear a surgical mask when within 3 feet of the patient, and should wash hands after patient contact and before leaving the home.
4. Patients should cover their mouths and noses with tissue when coughing or sneezing, dispose of used tissues immediately after use and wash hands after using tissues.
5. Family members should wash hands after contact with the patient.

APPENDIX E

WHO Guidelines for the Collection of Human Specimens for Laboratory Diagnosis of Avian Influenza Infection (12 January 2005)

1. General information

Respiratory virus diagnosis depends on the collection of high-quality specimens, their rapid transport to the laboratory and appropriate storage before laboratory testing. Virus is best detected in specimens containing infected cells and secretions. Specimens for the direct detection of viral antigens or nucleic acids and virus isolation in cell cultures should be taken preferably during the first 3 days after onset of clinical symptoms.

2. Type of specimens

A variety of specimens are suitable for the diagnosis of virus infections of the **upper respiratory tract**.

- Nasal swab
- Nasopharyngeal swab
- Nasopharyngeal aspirate
- Nasal wash
- Throat swab

In addition to swabs from the upper respiratory tract, invasive procedures can be performed for the diagnosis of virus infections of the lower respiratory tract where clinically indicated:

- Transtracheal aspirate
- Bronchoalveolar lavage
- Lung biopsy
- Post-mortem lung or tracheal tissue.

Specimens for the laboratory diagnosis of avian influenza A should be collected in the following order of priority.

- Nasopharyngeal aspirate
- Acute serum
- Convalescent serum.

Specimens for direct detection of viral antigens by immunofluorescence staining of infected cells should be refrigerated and processed within 1-2 hours. Specimens for use with commercial near-patient tests should be stored in accordance with the manufacturer's instructions. Specimens for virus isolation should be refrigerated

immediately after collection and inoculated into susceptible cell cultures as soon as possible. If specimens cannot be processed within 48-72 hours, they should be kept frozen at or below -70°C .

Respiratory specimens should be collected and transported in virus transport media. A number of media that are satisfactory for the recovery of a wide variety of viruses are commercially available.

3. Procedures for specimen collection

a. Materials required

- Sputum/mucus trap
- Polyester fiber-tipped applicator
- Plastic vials
- Tongue depressor
- 15-ml conical centrifuge tubes
- Specimen collection cup or Petri dishes
- Transfer pipettes

b. Virus transport Medium

(1) Virus transportation medium for use in collecting throat and nasal swabs.

- Add 10 g veal infusion broth and 2 g bovine albumin fraction V to sterile distilled water (to 400 ml).
- Add 0.8 gentamicin sulfate solution (50 mg/ml) and 3.2 ml amphotericin B (250ug/ml)
- Sterilize by filtration

(2) Nasal wash medium

- Sterile saline (0.85% NaCl)

c. Preparing to collect specimens

Clinical specimens should be collected as described below and added to transport medium. Nasal or nasopharyngeal swabs can be combined in the same vial of virus transport medium. When possible, the following information should be recorded on the Field Data Collection Form: general patient information, type of specimens, date of collection, and contact information of person completing the form, etc.

Standard precautions should always be followed, and barrier protections applied whenever samples are obtained from patients.

Nasal swab

A dry polyester swab is inserted into the nostril, parallel to the palate, and left in place for a few seconds. It is then slowly withdrawn with a rotating motion. Specimens from both nostrils are obtained with the same swab. The tip of the swab is put into a plastic vial containing 2-3 ml of virus transport medium and the applicator stick is broken off.

Nasopharyngeal swab

A flexible, fine-shafted polyester swab is inserted into the nostril and back to the nasopharynx and left in place for a few seconds. It is slowly withdrawn with a rotating motion. A second swab should be used for the second nostril. The tip of the swab is put into a vial containing 2-3 ml of virus transport medium and the shaft cut.

Nasopharyngeal aspirate

Nasopharyngeal secretions are aspirated through a catheter connected to a mucus trap and fitted to a vacuum source. The catheter is inserted into the nostril parallel to the palate. The vacuum is applied and the catheter is slowly withdrawn with a rotating motion. Mucus from the other nostril is collected with the same catheter in a similar manner. After mucus has been collected from both nostrils, the catheter is flushed with 3 ml of transport medium.

The patient sits in a comfortable position with the head slightly tilted backward and is advised to keep the pharynx closed by saying “K” while the washing fluid (usually physiological saline) is applied to the nostril. With a transfer pipette, 1-1.5 ml of washing fluid is instilled into one nostril at a time. The patient then tilts the head forward and lets the washing fluid flow into a specimen cup or a Petri dish. The process is repeated with alternate nostrils until a total of 10-15 ml of washing fluid has been used. Dilute approximately 3 ml of washing fluid 1:2 in transport medium.

Throat swab

Both tonsils and the posterior pharynx are swabbed vigorously, and the swab is placed in transport medium as described above.

4. Sera collection for influenza diagnosis

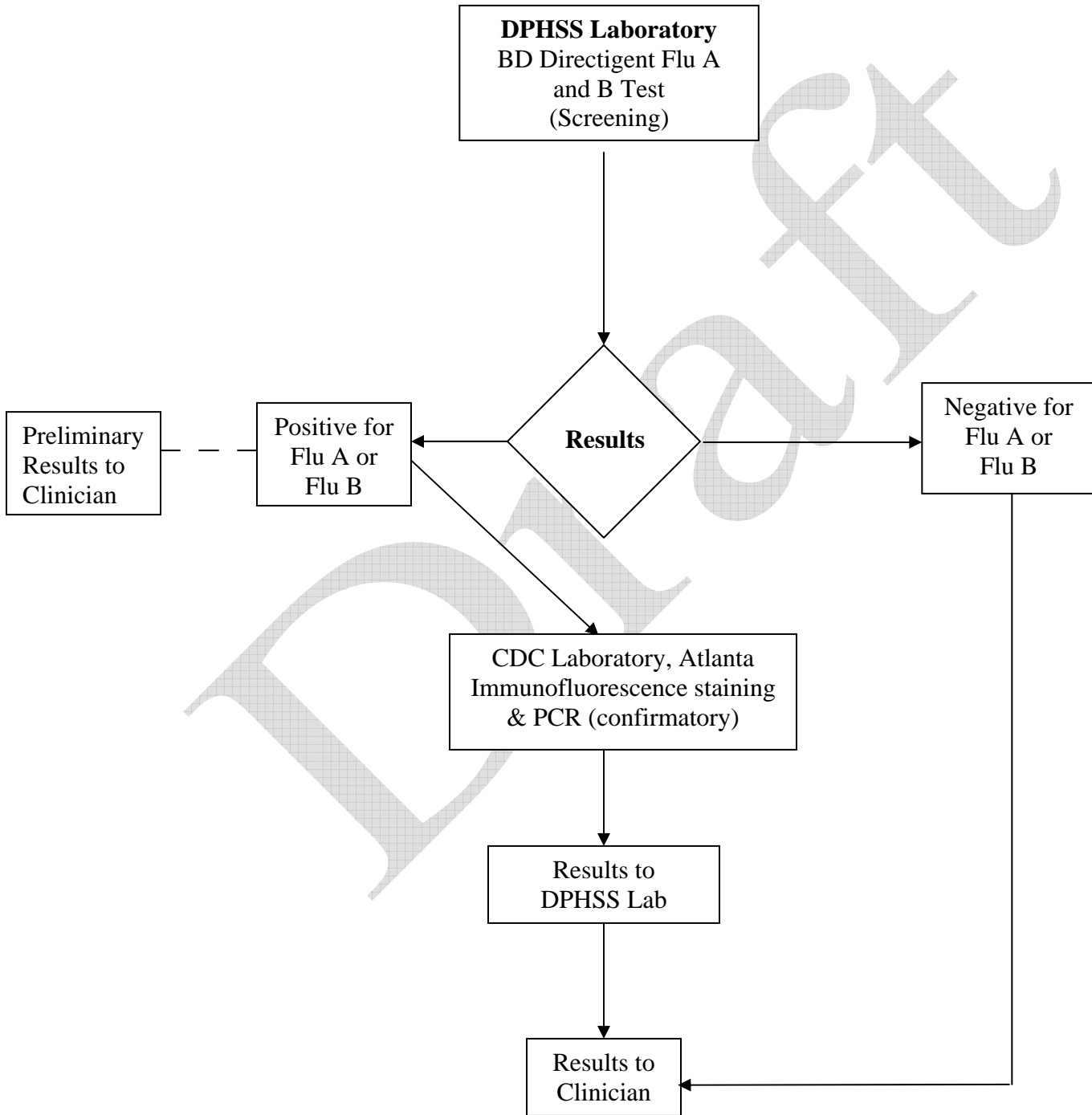
An acute-phase serum specimen (3-5 ml of whole blood) should be taken soon after onset of clinical symptoms and not later than 7 days after onset. A convalescent-phase serum specimen should be collected 14 days after the onset of symptoms. Where patients are near death, a second ante-mortem specimen should be collected.

Although single serum specimens may not provide conclusive evidence in support of an individual diagnosis, when taken more than 2 weeks after the onset of symptoms they can be useful for detecting antibodies against avian influenza viruses in a neutralization test.

APPENDIX F

Department of Public Health and Social Services Laboratory

Algorithm for Laboratory Screening and Confirmation of Pandemic Influenza in Humans



APPENDIX G

TRAVEL ADVISORY DISTRIBUTION LIST

1. Guam International Airport Authority
2. Guam Customs & Quarantine Agency
3. Association of Terminal Operators
4. U.S. Customs and Border Protection, U.S. Department of Homeland Security
5. Guam Visitors Bureau
6. Guam Hotel and Restaurant Association
7. Port Authority of Guam
8. Chamber of Commerce
9. Continental Airlines
10. China Airlines
11. Northwest Airlines
12. Korean Airlines
13. Philippine Airlines
14. Japan Airlines
15. Guam Fire Department/Emergency Medical Services
16. Aircraft Rescue Fire Fighting Unit
17. Office of Civil Defense/Office of Homeland Security
18. Guam Police Department
19. Guam Medical Society
20. Continental Micronesia Inc., Family Medical Clinic

APPENDIX H

**Public Health
Emergency Response
ICS Organizational Tree**

Command Level

