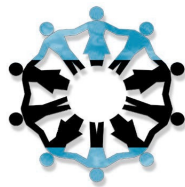




**Hertford County Emergency Operation Plan
Appendix G-Pandemic Influenza
Appendix H-Bioterrorism and Emerging Health Threats**

Hertford County Public Health Authority



Hertford County Pandemic Influenza Response Plan

Version 3.2

09/20/07 Version 2.1 Draft
03/03/08 Version 2.2 Draft
05/31/08 Version 3.1 Draft
11/18/08 Version 3.2 Draft



HERTFORD COUNTY PANDEMIC INFLUENZA RESPONSE PLAN

TABLE OF CONTENTS

- I. Introduction 5**
 - Purpose (6)
 - Assumptions (7)
 - Phases of a Pandemic (9)
 - Impact in Hertford County (11)
 - Planning Committee Overview (14)

- II. Command and Control.....15**
 - All Hazards Plan/Influenza Plan (15)
 - State vs. County roles and responsibility (15)
 - Legal authority for isolation/quarantine (18)
 - Incident command structure for HCPHA (18)

- III. Surveillance..... 20**
 - Definitions (20)
 - Sentinel surveillance (20)
 - Enhanced surveillance (20)
 - Reporting Procedures (23)
 - to the local health department
 - to the state
 - Investigation/Collecting epidemiological data (24)

- IV. Lab Diagnostics.....24**
 - NC State Laboratory of Public Health Pandemic Influenza Plan (24)
 - Laboratory Submission Form NC DHHS 3431 (24)

- V. Vaccine.....26**
 - Priority groups (26)
 - Estimated doses needed (26)
 - Storage and distribution (31)

- VI. Antivirals..... 31**
 - Priority groups (31)
 - Estimated doses needed (32)
 - Storage and distribution (33)
 - Private sector supplies (34)

09/20/07 Version 2.1 Draft
03/03/08 Version 2.2 Draft
05/31/08 Version 3.1 Draft
11/18/08 Version 3.2 Draft



VII. Disease Containment.....35

- Community Containment Measures (35)
- Individuals in isolation/quarantine (38)
- Support for vulnerable populations (44)
- Stockpiling of masks/PPE (39)

VIII. Emergency Response..... 41

- Medical surge (41)
- Support for vulnerable populations (44)
- Mass fatality planning (46)
- Psychosocial support (48)
- Security/Public safety (49)

IX. Communications..... 50

- Dissemination of public information (50)
- Communication to healthcare providers (50)
- Updates to HCPHA (52)

X. Continuity of Operations..... 52

- Hertford County Public Health Authority (52)
- Hertford County Government Agencies (52)
- Continuity of operations plans by businesses (52)

XI School System Response.....53

- Leadership and Key Contacts (53)
- MOU between HCPHA and HCPS (53)
- Emergency Plans (54)
- Dismissal of Students and Triggers (54)
- Communication (55)
- Maintenance of School-based Services (56)
- Infection control practices (56)
- Seasonal Influenza Vaccination Program (56)

XII Childcare Facility Response.....57

- Leadership and Key Contacts (57)
- Emergency Plans (57)
- Dismissal of Students and Triggers (57)
- Communication (58)
- Infection control practices (58)

09/20/07 Version 2.1 Draft
 03/03/08 Version 2.2 Draft
 05/31/08 Version 3.1 Draft
 11/18/08 Version 3.2 Draft



XIII. Appendices

- A - Planning Committee/Local Emergency Preparedness Council
- B - HCPHA ICS Structure/Assignments
- C - Pandemic Influenza Case Definition
- D - NC State Lab Pandemic Flu Plan
- E -Laboratory Submission Form NC DHHS 3431
- F - Influenza Vaccine Estimations Worksheet
- G - Antiviral Estimation Worksheet
- H- Statues Related to Isolation and Quarantine
- I -Hertford County Isolation Order
- J -Hertford County Quarantine Order
- K-School Contact Information
- L - HCPHA/HCPS MOU
- M- Childcare Services Contact Information

09/20/07 Version 2.1 Draft
03/03/08 Version 2.2 Draft
05/31/08 Version 3.1 Draft
11/18/08 Version 3.2 Draft



• INTRODUCTION

Severe influenza pandemics represent one of the greatest potential threats to the public's health. Pandemics are distinct from seasonal influenza epidemics that happen nearly every year, causing an average of 36,000 deaths annually in the United States. Seasonal influenza epidemics are caused by influenza viruses which circulate around the world. Over time, people develop some degree of immunity to these viruses, and vaccines are developed annually to protect people from serious illness. Pandemic influenza refers to a worldwide epidemic due to a new, dramatically different strain of influenza virus. A pandemic virus strain can spread rapidly from person to person and, if severe, can cause high levels of disease and death around the world.

Pandemic viruses develop in two main ways. First, wild birds are the reservoir for all influenza viruses. Most avian influenza viruses do not infect or cause significant disease in humans. However, new pandemic influenza viruses can arise when avian influenza viruses acquire the ability to infect and cause disease in humans, and then spread rapidly from person to person. Second, all influenza viruses experience frequent, slight changes to their genetic structure over time. This necessitates a change in annual vaccines to protect against seasonal influenza. Occasionally, however, influenza viruses undergo a major change in genetic composition through the combination of an avian and human virus. This reassorted virus is the other way in which an influenza pandemic can rise.

The creation of a novel virus means that most, if not all, people in the world will have never been exposed to the new strain and have no immunity to the disease. It also means that new vaccines must be developed and therefore are not likely to be available for months, during which time many people could become infected and seriously ill.

During the 20th century, three pandemics occurred that spread worldwide within a year. The influenza pandemic of 1918 was especially virulent, killing a large number of young, otherwise healthy adults. It is now known that this pandemic was caused by an avian influenza virus that suddenly developed the ability to infect humans and to easily spread from person to person. The pandemic caused more than 500,000 deaths in the United States and more than 40 million deaths around the world. Subsequent pandemics in 1957-58 and 1968-69 caused far fewer fatalities in the U.S., 70,000 and 34,000 deaths respectively, but caused significant morbidity and mortality around the world. These two pandemics were caused by an influenza virus that arose from genetic reassortment between human and avian viruses.

The Centers for Disease Control and Prevention (CDC) estimates that in the U.S. alone, an influenza pandemic could infect up to 200 million people and cause between 200,000 and 1,900,000 deaths. The worldwide public health and scientific community is increasingly concerned about the potential for a pandemic to arise from the widespread and growing avian influenza A (H5N1) outbreak across several continents. Although many officials believe it is inevitable that future influenza pandemics will occur, it is impossible to predict the exact timing of these outbreaks.

09/20/07 Version 2.1 Draft
03/03/08 Version 2.2 Draft
05/31/08 Version 3.1 Draft
11/18/08 Version 3.2 Draft

• **PURPOSE OF THE PLAN**

The Pandemic Influenza Response Plan for Hertford County (Plan) provides guidance to Public Health – Hertford County (HCPHA) and local partners regarding detection, response and recovery from an influenza pandemic. The Plan describes the unique challenges posed by a pandemic that may necessitate specific leadership decisions, response actions, and communications mechanisms. Specifically, the purpose of the plan is to:

- Define preparedness activities that should be undertaken before a pandemic occurs that will enhance the effectiveness of response measures.
- Describe the response, coordination and decision making structure that will incorporate HCPHA, the health care system in Hertford County, other local response agencies, and state and federal agencies during a pandemic.
- Define roles and responsibilities for HCPHA, local health care partners and local response agencies during all phases of a pandemic.
- Describe public health interventions in a pandemic response and the timing of such interventions.
- Serve as a guide for local health care system partners, response agencies and businesses in the development of pandemic influenza response plans.
- Provide technical support and information on which preparedness and response actions are based.

During an influenza pandemic, HCPHA and local partners will utilize the plan to achieve the following goals:

- Limit the number of illnesses and deaths
- Preserve continuity of essential government functions
- Minimize social disruption
- Minimize economic losses

The plan will be coordinated with other HCPHA preparedness plans and activities, and will be coordinated with the plans of county, state and federal partners.

This plan currently does not address measures that would be taken to contain an outbreak of the avian influenza virus in birds or other animal populations occurring in Hertford County. Federal and state departments of agriculture are primarily responsible for surveillance and control of influenza outbreaks in domestic animals, although agricultural control measures interface with public health actions to prevent transmission into humans.

- **PLANNING ASSUMPTIONS**

1. An influenza pandemic will result in the rapid spread of the infection with outbreaks throughout the world. Communities across the state and the country may be impacted simultaneously.
2. There will be a need for heightened global, national and local surveillance.
3. Birds with an avian influenza strain may arrive and cause avian outbreaks in Hertford County prior to the onset of a pandemic, significantly impacting domestic poultry, wild and exotic birds, and other species.
4. Hertford County will not be able to rely on mutual aid resources, State or Federal assistance to support local response efforts.
5. Antiviral medications may be in extremely short supply. Local supplies of antiviral medications may be prioritized by HCPHA for use in hospitalized influenza patients, health care workers providing care for patients, and other priority groups based on current national guidelines and in consultation with the Hertford County Public Health Authority (HCPHA).
6. A vaccine for the pandemic influenza strain will likely not be available for 6 to 8 months following the emergence of a novel virus.
 - a) As a vaccine becomes available, it will be distributed and administered by HCPHA based on current national guidelines and in consultation with Hertford County Emergency Management.
 - b) Insufficient supplies of vaccines and antiviral medicines will place greater emphasis on social distancing strategies and public education to control the spread of the disease in the county.
7. The number of ill people requiring outpatient medical care and hospitalization could overwhelm the local health care system.
 - a) Hospitals and clinics will have to modify their operational structure to respond to high patient volumes and maintain functionality of critical systems.
 - b) The health care system may have to respond to increased demands for service while the medical workforce experiences 25-35% absenteeism due to illness.
 - c) Demand for inpatient beds and assisted ventilators will increase by 25% or



- more, and prioritization criteria for access to limited services and resources may be needed.
- d) There will be a tremendous demand for urgent medical care services.
 - e) Infection control measures specific to the management of influenza patients will need to be developed and implemented at health care facilities, out-patient care settings and long-term care facilities.
 - f) The health care system may need to develop alternative care sites (designated "flu clinics") to relieve demand on hospital emergency rooms and care for persons not ill enough to merit hospitalization but who cannot be cared for at home.
 - g) Emergency Medical Service responders will face extremely high call volumes for several weeks, and may face 25%-35% reduction in available staff.
 - h) The number of fatalities experienced during the first few weeks of a pandemic could overwhelm the resources of the Medial Examiner's Office, hospital morgues, and funeral homes.
 - i) The demand for home care and social services will increase dramatically.
8. There could be significant disruption of public and privately owned critical infrastructure including transportation, commerce, utilities, public safety, agriculture and communications.
 9. Social distancing strategies aimed at reducing the spread of infection such as closing schools, community centers, and other public gathering points and canceling public events may be implemented during a pandemic.
 10. Some persons will be unable or unwilling to comply with isolation directives. For others, social distancing strategies may be less feasible (for example, large families living in small living quarters). It will be important to develop and disseminate strategies for infection control appropriate for these environments and populations.
 11. It will be important to coordinate pandemic response strategies throughout counties in Eastern North Carolina, Tidewater, Virginia and the State due to the regional mobility of the population.
 12. The general public, health care system, response agencies, and elected leaders will need continuous updates on the status of the pandemic outbreak, impacts on critical services, the steps HCPHA is taking to address the incident, and steps response partners and the public can take to protect themselves.



• **PHASES OF A PANDEMIC**

The World Health Organization (WHO) has developed a global influenza preparedness plan that includes a classification system for guiding planning and response activities for an influenza pandemic. This classification system is comprised of six phases of increasing public health risk associated with the emergence and spread of a new influenza virus subtype that may lead to a pandemic. The Director General of WHO formally declares the current global pandemic phase and adjusts the phase level to correspond with pandemic conditions around the world. For each phase, the global influenza preparedness plan identifies response measures WHO will take, and recommends actions that countries around the world should implement.

Pandemic Phases	Public Health Goals
<p>Interpandemic Period</p> <p>Phase 1 – No new influenza virus subtypes detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered low.</p> <p>Phase 2 – No new influenza virus subtypes detected in humans. However, a circulating animal influenza virus subtype poses substantial risk of human disease.</p>	<p>Strengthen influenza pandemic preparedness at all levels. Closely monitor human and animal surveillance data.</p> <p>Minimize the risk of transmission of animal influenza virus to humans; detect and report such transmission rapidly if it occurs.</p>
<p>Pandemic Alert Period</p> <p>Phase 3 – Human infection(s) are occurring with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.</p> <p>Phase 4 – Small cluster(s) of human infection with limited human-to-human transmission but spread is highly localized suggesting that the virus is not well adapted to humans.</p> <p>Phase 5 – Larger cluster(s) of human infection but human-to-human spread is localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).</p>	<p>Ensure rapid characterization of the new virus subtype and early detection, notification and response to additional cases.</p> <p>Contain the new virus within limited foci or delay spread to gain time to implement preparedness measures, including vaccine development.</p> <p>Maximize efforts to contain or delay spread to possibly avert a pandemic, and to gain time to implement response measures.</p>

09/20/07 Version 2.1 Draft
 03/03/08 Version 2.2 Draft
 05/31/08 Version 3.1 Draft
 11/18/08 Version 3.2 Draft



Pandemic Period	
Phase 6 – Pandemic is declared. Increased and sustained transmission in the general population.	Implement response measures including social distancing to minimize pandemic impacts.

In accordance with the Department of Health and Human Services Pandemic Influenza Strategic Plan, HHS will determine and communicate the pandemic phase level for the U.S. based on the global pandemic phase and the extent of disease spread throughout the country.

The Hertford County Pandemic Influenza Response Plan corresponds to the WHO pandemic phases. Each phase within the Plan is subdivided into two components, “affected” and “not affected” depending upon whether human infection is occurring within the local region. Appropriate preparedness and response measures are identified for each phase, with implementation based in part on whether Hertford County is affected.

Pandemic Phases	Sub Phase
Phase 1	No sub phases.
Phase 2	A. Local area is affected or has extensive travel / trade links with affected areas
	B. Not affected
Phase 3	A. Local area is affected or has extensive travel / trade links with affected areas
	B. Not affected
Phase 4	A. Local area is affected or has extensive travel / trade links with affected areas
	B. Not affected
Phase 5	A. Local area is affected or has extensive travel / trade links with affected areas
	B. Not affected
Phase 6 09/20/07 Version 2.1 Draft 03/03/08 Version 2.2 Draft 05/31/08 Version 3.1 Draft 11/18/08 Version 3.2 Draft	A. Not yet affected
	B. Local area is affected or has extensive travel / trade links with affected areas
	C. Subsided
	D. Next wave



• IMPACT ON HERTFORD COUNTY

There are several characteristics of an influenza pandemic that differentiate it from other public health emergencies. First, it has the potential to suddenly cause illness in a very large number of people, who could easily overwhelm the health care system throughout the nation. A pandemic could also jeopardize essential community services by causing high levels of absenteeism in critical positions in every workforce. It is likely that vaccines against the new virus will not be available for six to eight months following the emergence of the virus. Basic services, such as health care, law enforcement, fire, emergency response, communications, transportation, and utilities, could be disrupted during a pandemic. Finally, the pandemic, unlike many other emergency events, could last for several weeks, if not months.

Table 1 and Table 2 below show the predicted effects of a pandemic influenza epidemic in Hertford County.

Table 1. Estimated number of Episodes of Illness, Healthcare Utilization, and Deaths Associated with Moderate and Severe Pandemic Influenza Scenarios for the US Population and Hertford County using the King County/Seattle Model^{1,2}

Characteristic	Moderate (1958/68-like)		Severe (1918 - like)	
	US	Hertford County	US	Hertford County
Illness	90 Million	7,200	90 Million	7,200
Outpatient Care	45 million	3,600	45 million	3,600
Hospitalization	865,000	69	9,900,000	792
ICU Care	128,750	9	1,485,000	104
Mechanical Ventilation	209,000	17	742,500	59
Deaths	209,000	17	1,903,000	152

¹ Estimates are based on extrapolation from past pandemics in the US, and do not include the potential impacts of interventions not available during the 20th Century pandemics.

² The calculations used to determine the figures in Table one are based on the following assumptions:

- Hertford County accounts for 0.007% of the total US population.
- Susceptibility to the pandemic influenza subtype will be universal.
- The clinical disease attack rate will be 30% in the overall population. Illness rates will be



- highest among school-aged children (about 40%) and decline with age. Among working adults, an average of 20% will become ill during a community outbreak.
- Of those who become ill with influenza, 50% will seek outpatient medical care.

Table 2 Estimated number of outpatient visits, hospitalizations and deaths associated with moderate pandemic influenza scenarios for Hertford County provided by UNC using the FluAid 2.0 software.

**FluAid 2.0
Influenza table for Hertford County, 10/4/2006**

POPULATION (NUMBERS AND DISTRIBUTION)					
	0-18 yrs	19-64 yrs	65+ yrs	Total	% Total
Non-high risk	5,712	11,993	2,253	19,958	83.62
High risk	390	2,017	1,501	3,908	16.37
Totals	6,102	14,010	3,754	23,866	100

DEATHS (NUMBER OF CASES)						
Gross attack rates				Distribution by age group (% of total): Most likely		
	15 %	25 %	35 %		% High Risk	%Total
0-18 yrs most likely	0	0	0<>	0-18 yrs	0	0
minimum	0	0	0			
maximum	1	2	3			
19-64 years most likely	4	7	10	19-64 yrs	38	40
minimum	1	1	1			
maximum	8	14	19			
65+ yrs most likely	6	10	14	65+ yrs	50	60
minimum	6	10	14			
maximum	8	13	18			
TOTAL: Most likely	10	17	24	Totals	88	100
Total minimum	7	11	15			
Total maximum	17	29	40			

HOSPITALIZATION (NUMBER OF CASES)
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09/20/07 Version 2.1 Draft
 03/03/08 Version 2.2 Draft
 05/31/08 Version 3.1 Draft
 11/18/08 Version 3.2 Draft



Gross attack rates				Distribution by age group (% of total): Most likely		
	15 %	25 %	35 %		% High Risk	% Total
0-18 yrs most likely	2	3	4	0-18 yrs	1	5
minimum	1	1	2			
maximum	7	12	17			
19-64 yrs most likely	26	43	60	19-64 yrs	9	59
minimum	4	8	11			
maximum	28	47	66			
65+ yrs most likely	16	27	38	65+ yrs	23	36
minimum	12	20	27			
maximum	21	35	48			
TOTAL: Most likely	44	73	102	Totals	33	100
Total: minimum	17	29	40			
Total: maximum	56	94	131			

09/20/07 Version 2.1 Draft
 03/03/08 Version 2.2 Draft
 05/31/08 Version 3.1 Draft
 11/18/08 Version 3.2 Draft



OUTPATIENT VISITS (NUMBER OF CASES)						
Gross attack rates				Distribution by age group (% of total): Most likely		
	15 %	25 %	35 %		% High Risk	% Total
0-18 yrs most likely	541	902	1,263	0-18 yrs	3	28
minimum	452	754	1,055			
maximum	630	1,051	1,471			
19-64 yrs most likely	1,081	1,802	2,522	19-64 yrs	8	57
minimum	776	1,294	1,811			
maximum	1,650	2,750	3,850			
65+ yrs most likely	291	486	680	64+ yrs	6	15
minimum	275	458	642			
maximum	452	754	1,055			
TOTAL: Most likely	1,913	3,190	4,465	Totals	17	100
Total: minimum	1,503	2,506	3,508			
Total: maximum	2,732	4,555	6,376			

-
- **PLANNING COMMITTEE (Members listed in Appendix A)**

The Hertford County Emergency Planning Council serves as the local emergency planning committee (LEPC) for all emergency preparedness planning for which the Hertford County Public Health Authority is responsible. The Council meetings are organized and facilitated by the HCPHA Director of Health Planning and Resource Development. The Council meets at least quarterly in person. Members with expertise in selected areas meet as needed.

Agencies and organizations represented on the Hertford County LEPC include the Public School System, Emergency Management, Emergency Medical Services, Town and County Law Enforcement, Social Services, Roanoke Chowan Hospital, Roanoke Chowan Human Services, Cooperative Extension, Western Tidewater/Hertford County Medical Reserve Corp., faith community, Roanoke Chowan Community Health Center, Chowan University and Public Health. Town and County leaders also receive an

09/20/07 Version 2.1 Draft
 03/03/08 Version 2.2 Draft
 05/31/08 Version 3.1 Draft
 11/18/08 Version 3.2 Draft



agenda, meeting minutes and an invitation to attend.

The Hertford County Public School System and the Hertford County Public Health Authority are working closely together to prepare for pandemic influenza. The HCPHA receives absenteeism numbers from each school daily which is reviewed for aberrancies by HCPHA staff. The HCPHA currently disseminates information related to health threats through school children. The HCPHA actively participates in the public school system's School Health Advisory Council which meets quarterly. Pandemic influenza preparation is a standing agenda item.

II. COMMAND AND CONTROL

- **ALL HAZARDS PLAN/PANDEMIC INFLUENZA PLAN**

The Pandemic Influenza Plan is located in Appendix H of the Hertford County Local Bioterrorism and Emerging Health Threats Preparedness and Response Plan which is an annex to the Hertford County All Hazards (Emergency Operations) Plan.

The Pandemic Influenza Plan primarily focuses on the roles, responsibilities, and activities of the Hertford County Public Health Authority. However, specific responsibilities for key response partners are included to highlight points of coordination between agencies during a pandemic. It is expected that health care facilities and health care professionals, essential service providers, local government officials, and business leaders will develop and incorporate procedures and protocols addressing pandemic influenza preparedness and response activities into their emergency response plans.

- **STATE VS. COUNTY ROLES AND RESPONSIBILITIES**

Various state and local public officials have overlapping authorities with regard to protecting public health and safety. The Governor, the State Secretary of Health and Human Services, the State Health Director, the Hertford County Manager, the Hertford County Board of Health, the town managers/administrators in Hertford County and the Hertford County Health Director each can implement authorities within the scope of their jurisdiction aimed at protecting public health, including increasing social distancing by closing public or private facilities. During a pandemic, the presence of overlapping authorities will necessitate close communication and coordination between elected leaders and the Local Health Director to ensure decisions and response actions are clear and consistent.

In general, the federal government has primary responsibility for preventing the introduction of communicable diseases from foreign countries into the United States. States and local jurisdictions have primary responsibility for isolation and quarantine within their borders. The Hertford County Health Director may seek the assistance of



the Hertford County law enforcement officers to enforce public health orders related to isolation and quarantine.

The North Carolina Public Health Team and Hertford County Public Health Team are responsible for identifying and tracking an influenza pandemic, and informing the medical community about preventive and protective measures.

Based on the NC Infectious Disease and Bioterrorism Operations Plan (Appendix 7 to Annex b North Carolina Emergency Operations Plan) and the Hertford County All Hazards Plan, the Hertford County Emergency Response Plan is activated during a pandemic flu epidemic at the activation levels listed below, fully or partially, dependent on the level of the emergency as determined by the Hertford County Director of Emergency Management in collaboration and coordination with the Hertford County Health Director, as appropriate.

State Emergency Response Team (SERT) Activation Levels: Activities

SERT Activation Level	Situation Description	Pandemic Flu Response Phase
3	An infectious disease outbreak has occurred in Hertford County and/or an adjacent county. Local capacity is sufficient to manage the situation. Potential exists for a wider outbreak.	<p style="text-align: center;">5</p> HCPHA maximizes local efforts, such as isolation, quarantine and social distancing to contain or delay spread, to possibly avert a pandemic, and to gain time to implement response measures. Hertford County Public Health Command Center and Hertford County Emergency Operations Center Activated 24/7. Emergency Management Regional Coordination Center is planned. Local medical treatment facilities advised by the state SERT about the disease and instructed to identify resources to assist the stricken community. The State Disaster Medical Services Team begins to identify medical resources available. The NC Special Operations

09/20/07 Version 2.1 Draft
 03/03/08 Version 2.2 Draft
 05/31/08 Version 3.1 Draft
 11/18/08 Version 3.2 Draft



		Response Team (SORT) is alerted for possible deployment.
2	An infection disease has spread to many NC communities, affected many people, caused an increase in death, has become a potential epidemic. Local capacity is not sufficient to manage the outbreak. State assistance and mutual aid from other communities is required. Federal assistance may be required.	6 Implement response measures including social distancing and declaring "snow days" to minimize pandemic impacts Governor may declare a state of emergency State Health Director or other state PH authority officially activates the state pandemic flu plan. State PH Command Center and State SERT fully activated 24/7. NC Chief of OEMS and the State Health Director serve as lead technical advisors to the SERT leader. Public Health works with the CDC to identify the disease if still unknown. The HCPHA alerts EM of possible need for SNS staging site. Additional support may be requested via the state agencies from all government employees working in Hertford County. The National Guard may be activated to assist local law enforcement.
1	A widespread infectious disease outbreak has occurred. This outbreak is beyond local and state capabilities, and federal assistance is essential.	6 The Governor requests federal assistance. Federal agencies arrive in state and establish a Disaster Field Office (DFO) to manage combined state and federal actions; deployed to local areas.

09/20/07 Version 2.1 Draft
 03/03/08 Version 2.2 Draft
 05/31/08 Version 3.1 Draft
 11/18/08 Version 3.2 Draft



- **LEGAL AUTHORITY FOR ISOLATION/QUARANTINE**

North Carolina law permits either the state health director or a local health director to order isolation or quarantine-G.S. 130A-145(a). Isolation or quarantine orders are permitted only:

- 1) when and for so long as the public health is endangered,
- 2) when all other reasonable means for correcting the problem have been exhausted, and
- 3) when no less restrictive alternative exists.

Isolation authority is “the authority to issue an order to limit the freedom of movement or action of persons or animals that are infected or reasonably suspected to be infected with a communicable disease or communicable condition for the period of communicability to prevent the direct or indirect animal to other persons or animals who are susceptible or who may spread the agent to others.” G.S. 130A-2(3a).

Quarantine authority is “the authority to issue an order to limit the freedom of movement or action of persons or animals which have been exposed to or are reasonably suspected of having been exposed to a communicable disease or communicable condition for a period of time as may be necessary to prevent the spread of that disease. Quarantine authority also means the authority to issue an order to limit access by any person or animal to an area or facility that may be contaminated with an infectious agent. The term also means the authority to issue an order to limit the freedom of movement or action of persons who have not received immunizations against a communicable disease with the State Health Director or a local health director determines that the immunizations are required to control an outbreak of that disease.” G.S.130A-2(7a).

There is no law in NC that interprets the terms “all other reasonable means” or “less restrictive alternative.” The plain words of the statute make clear that, if there are reasonable means of controlling the public health threat short of issuing an isolation or quarantine order, those means should be tried first.

- **Incident Command Structure for the Hertford County Public Health Authority- See Appendix B.**

The Health Director and Director of Health Planning and Resource Development will relieve each other as Public Health Incident Commanders during a public health emergency. They will be located at the County Emergency Operation Center.



The Laboratory Supervisor and Lead Environmental Health Specialist will relieve each other as safety officers and may operate out of the Hertford County Public Health Command Center.

The Public Information Officers will be the Health Promotion Supervisor and HIV/Family Planning Health Educator. They will operate from the PH Command Center.

The Director of Nurses/Personal Health Services and Director of Home Health will relieve each other as the Operations Section Chief and will be located where the majority of the operations are occurring.

The Director of Community Health Services will serve as the Planning Section Chief and will be located in the Public Health Command Center. The relief for that position is the Supervisor for Outreach Services.

The Finance/Administration Section Chief will be located in the PH Command Center. The position will be filled by the CFO with relief from the Accounting Manager.

The Logistics Section Chief will be the Administrative Assistant to the Health Director with relief from the Personnel Officer. Both will be located in the Public Health Center.

Staff who report to these officers and chiefs during normal operations will generally be assigned to fill the roles falling under them in the ICS table.



III. SURVEILLANCE

During a pandemic, early identification of the initial outbreak will be key to activating other aspects of the plan in a timely fashion to best contain the spread of the disease. This may be accomplished in many different ways—from real-time syndromic surveillance systems to hospital, laboratory and mortality surveillance to disease reporting conducted by astute clinicians.

Epidemiological investigations by the Hertford County Public Health Authority Epidemiological (Epi) Team will provide vital information about both the potential spread of disease and will identify the most high-risk individuals who may require quarantine. The Epi Team will consult with the PHRST 1 and/or state epidemiologist for guidance.

- **DEFINITIONS**

Surveillance – On-going systemic collection, analysis and interpretation of data and the distribution to those who need to know.

Sentinel surveillance – Data from selected targeted groups that provide an early assessment of occurrence in an outbreak.

Syndromic surveillance - applies to surveillance using health-related data that precede diagnosis and signal a sufficient probability of a case or an outbreak to warrant further public health response.

Enhanced surveillance - additional, or improved, surveillance warranted based on the pandemic phase.

Case Definitions – See Appendix C.

Also access the most current NC Division of Public Health clinical algorithm for identifying suspect cases at http://www.epi.state.nc.us/epi/gcdc/pandemic/AppendixP1_2007.pdf.

- **SENTINEL SURVEILLANCE**

The Roanoke Chowan Community Health Center-Ahoskie Office participates in the State's Sentinel Influenza monitoring program.

- **ENHANCED SURVEILLANCE**

- **Pandemic Phase 1 Surveillance activities**

09/20/07 Version 2.1 Draft
03/03/08 Version 2.2 Draft
05/31/08 Version 3.1 Draft
11/18/08 Version 3.2 Draft



(No new influenza virus subtypes detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered low).

- HCPHA is closely monitoring syndromic surveillance data
 - Receive and track daily Hertford County Public School absenteeism data primarily for trending but unexpected spikes will be investigated.
 - Receive and review weekly the NC Influenza Sentinel Surveillance Data in which two Hertford County primary care practices participate.
 - Access the Hertford County report on NC Detect Website bi-weekly.
 - Inform the following entities that reports will be requested of them during Phases 4-6:
 - large employers to report increased absenteeism
 - local pharmacies to report increased purchases of OTC flu and cold symptom relief medications
 - primary care providers to immediately report increased flu-like symptoms
 - veterinarians/cooperative extension to report increased deaths in the wild and domestic bird population
 - Emergency Medical Services to report increased transports of patients with flu-like symptoms to the emergency room.
 - Roanoke Chowan Hospital Emergency Department to report increased flu-like symptoms.
 - Morticians to report increases in deaths
 - Medical examiner to report unexplained deaths
 - HCPHA is creating/updating communication tables with names, addresses, telephone numbers and email addresses for the following agencies/groups in Hertford County:
 - Large employers
 - Local pharmacies
 - Primary care providers
 - Veterinarians
 - Cooperative extension
 - Emergency Medical Services
 - Morticians
 - Medical Examiner
 - Hertford County Emergency Preparedness Council Members
 - PHRST 1 Team Members
 - HCPHA will ensure contact information is current by calling contacts on a monthly basis.
- **Pandemic Phases 2 Surveillance activities**

(No new influenza virus subtypes detected in humans. However, a circulating animal influenza virus subtype poses substantial risk of human disease).

 - Same syndromic and enhanced surveillance activities as Phase 1.



- **Pandemic Phase 3 surveillance activities**
(Human infection(s) are occurring with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact).
 - Same syndromic and enhanced surveillance activities as Phase 1.
 - Additional Enhanced surveillance –The Roanoke Chowan Community Health Center (contains all but three of the family medicine practices in the county) and Roanoke Hospital are screening all patients hospitalized with community acquired pneumonia to determine if they traveled to a previously affected novel influenza A area within the last 10 days or had close contact with somebody who has within the last 10 days.

- **Pandemic Phase 4 Surveillance activities**
(Small cluster(s) of human infection with limited human-to-human transmission but spread is highly localized suggesting that the virus is not well adapted to humans).
 - Same syndromic and enhanced surveillance activities as Phases 1 - 3.
 - Additional syndromic surveillance – request the following reports at a frequency determined by the increasing threat of pandemic influenza in Hertford County:
 - large employers to report increased absenteeism
 - local pharmacies to report increased purchases of OTC flu and cold symptom relief medications
 - primary care providers to immediately report increased flu-like symptoms
 - veterinarians/cooperative extension to report increased deaths in the wild and domestic bird population
 - Emergency Medical Services to report increased transports of patients with flu-like symptoms to the emergency room.
 - Roanoke Chowan Hospital Emergency Department to report increased flu-like symptoms.
 - Morticians to report increases in deaths
 - Medical examiner to report unexplained deaths

 - Ensure that the Hertford County healthcare providers receive the most current case identification criteria (Appendix C), laboratory testing and treatment protocols issued by the NC Division of Public Health found at http://www.epi.state.nc.us/epi/gcdc/pandemic/AppendixB1_2007.pdf.

 - Further enhanced surveillance by:
 - investigating any cases of influenza like illness (ILI) with the following criteria:
 - ILI outside of regular flu season
 - Recent travel to an area where novel or avian influenza has been documented
 - Severe morbidity or mortality associated with ILI.



- monitoring death certificates for influenza and pneumonia deaths.
- calling the schools to determine if unusual absenteeism rates are due to ILI.

- **Pandemic Phase 5 surveillance activities**

(Larger cluster(s) of human infection but human-to-human spread is localized; suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible {substantial pandemic risk}).

- Same syndromic and enhanced surveillance activities as Phases 1 - 4.
- Further enhance surveillance by increasing syndromic surveillance activities to at least weekly and for some activities, daily and directly calling the Community Health Center, Hospital Infection Control Practitioner and the Nursing Home directly to determine real-time increases in ILI.
- Encourage the Roanoke Chowan Community Health Center to serve as a sentinel site for monitoring mortality from influenza and pneumonia, if a request for volunteers is issued by the State.

- **Pandemic Phase 6 surveillance activities**

(Pandemic is declared. Increased and sustained transmission in the general population).

- Same syndromic and enhanced surveillance activities as Phases 1 - 4.
- Further enhance surveillance by increasing all syndromic surveillance activities to daily and for some activities, every 2-4 hours and directly calling the Community Health Center, Hospital Infection Control Practitioner and the Nursing Home directly to determine real-time increases in ILI and an estimated number of cases.
- Contact Roanoke Chowan Hospital and the four funeral homes to gather estimates of influenza-related deaths.
- Provide daily-weekly counts of cases and deaths to the NC General Communicable Disease Branch as requested.
- Consider discontinuing influenza case investigations when recommended by the NC Division of Public Health so resources can be shifted to other response activities.

- **REPORTING PROCEDURES**

Although seasonal flu like illnesses are not currently a notifiable disease in North Carolina, *novel* influenza virus infections are reportable immediately to the Hertford County Public Health Director or the Health Officer on call by making direct telephone or personal contact.

- **Reporting suspect cases to the Hertford County Public Health Authority**

During pre- and early pandemic phases, telephone contact is the preferred method so advice can be given regarding the appropriate laboratory tests, referral, treatment and isolation. The Health Director should be informed directly by calling the **Hertford County Public Health Authority at 252-358-7833**. If



the Health Director is not available, the health officer on call should be notified.

The [Hertford County Sheriff's Department Dispatcher at 252-358-3800 or 911](#) and the [Roanoke Chowan Hospital Emergency Department at 252-209-3000](#) maintain a current contact list for the HCPHA officers on call.

During an epidemic, the need to contact the HCPHA will change as the epidemic evolves, current best practices and the availability of resources. The Health Director will determine when contacting the Health Director or health officer on call is no longer necessary or when alternate communication modes, such as faxing contact information, are necessary.

o **Reporting cases to the NC Division of Public Health**

The Hertford County Public Health Authority is responsible for reporting all suspect pandemic influenza cases to the [General Communicable Disease Control Branch in the NC Division of Public Health at 919-733-3419](#). In turn, the NCDPH is responsible for reporting all suspect cases of pandemic influenza cases to the HCPHA if they are reported directly to the NCDPH.

• **INVESTIGATION/COLLECTING EPIDEMIOLOGICAL DATA**

The Hertford County Outbreak Investigation and Control Plan includes the policies, protocols and details of responsibilities that are followed by the HCPHA Epidemiology Team during an outbreak investigation.

IV. LAB DIAGNOSTICS

• **NC STATE PH LABORATORY PANDEMIC INFLUENZA PLAN**

The North Carolina State Laboratory of Public Health Pandemic Influenza Preparedness and Response Plan Appendix D will be followed by the Hertford County Public Health Authority and Hertford County healthcare providers. Following this plan will ensure a coordinated, timely response for laboratory testing of pandemic influenza specimens from Hertford County. Upon contacting the Hertford County Public Health Authority in regards to a suspected case of novel influenza, the healthcare provider will be provided with a copy of the NC State Laboratory Plan. The Hertford County Public Health Authority's Clinical Laboratory Supervisor will be well versed in the State Laboratory's Plan and serve as a consultant to all healthcare providers submitting a specimen.

PCR testing for novel influenza virus will only be done at the state lab and the three regional labs. Local and contracted Labs should NOT try to perform viral culture on specimens of suspected novel influenza cases.



Commercial rapid antigen influenza tests are not recommended for diagnosis of novel or avian influenza infection.

- **Laboratory Submission Form**

The NC DHHS 3431 Virology (Appendix E: NCDHS 3431 Virology Form) laboratory submission form will be used for all novel influenza specimens collected. The use of this standard and already in-use form will ensure a coordinated, timely response for laboratory testing of pandemic influenza specimens from Pitt County. Upon contacting the Hertford County Public Health Authority in regards to a suspected case of novel influenza, the HCPHA Clinical Laboratory Supervisor will provide the healthcare provider with a copy of the NC DHHS 3431 Virology laboratory submission form and provide guidance as needed in completing the form.



V. VACCINE

The theme that has emerged as the USDHHS explores the prioritization of groups to receive vaccinations against a pandemic is the importance of limiting the effects of a pandemic on society by preserving essential societal functions.

The recommendations from the NVAC/ACIP were followed to determine priority groups and the estimated national numbers scaled to match the Hertford County population. The United States population factor used was 301 Million and for Hertford County 23,500. The sum of these numbers is over 23,500 because many people fall in two or more categories.

- PRIORITY GROUPS FOR VACCINE (from Table D-1: Vaccine Priority Group Recommendations-NVA/ACIP)**

Tier	Subtier	Population	Rationale
1	A	Medical workers and public health workers who are involved in direct patient contact, other support services essential for direct patient care, and vaccinators (~ 1,000)	Healthcare workers are required for quality medical care (studies show outcome is associated with staff-to-patient ratios). There is little surge capacity among healthcare sector personnel to meet increased demand
	B	Persons > 65 years with 1 or more influenza high-risk conditions, not including essential hypertension (~ 1,421)	These groups are at high risk of hospitalization and death. Excludes elderly in nursing homes and those who are immunocompromised and would not likely be protected by vaccination
		Persons 6 months to 64 years with 2 or more influenza high-risk conditions, not including essential hypertension (~ 539)	
		Persons 6 months or older with history of hospitalization for pneumonia or influenza or other influenza high-risk condition in the past year (~ 58)	
C	Pregnant women (~ 234)	In past pandemics and for annual influenza, pregnant women have been at high risk; vaccination will also protect the infant who cannot receive vaccine.	
	Household contacts of severely immunocompromised persons who would	Vaccination of household contacts of immunocompromised and young infants will decrease risk of exposure	

09/20/07 Version 2.1 Draft
 03/03/08 Version 2.2 Draft
 05/31/08 Version 3.1 Draft
 11/18/08 Version 3.2 Draft



		not be vaccinated due to likely poor response to vaccine (20 with transplants, AIDS, and incident cancer x 1.4 household contacts per person = ~28 people)	and infection among those who cannot be directly protected by vaccination
		Household contacts of children <6 month olds (~3,904)	
	D	Public health emergency response workers critical to pandemic response (~100)	Critical to implement pandemic response such as providing vaccinations and managing/monitoring response activities
		Key government leaders (13)	Preserving decision-making capacity also critical for managing and implementing a response
2	A	Healthy 65 years and older (~1,382)	Groups that are also at increased risk but not as high risk as population in Tier 1B
		6 months to 64 years with 1 high-risk condition (~2,795)	
	B	6-23 months old, healthy (~437)	Includes critical infrastructure groups that have impact on maintaining health (e.g., public safety or transportation of medical supplies and food); implementing a pandemic response; and on maintaining societal functions
		Public safety workers including police, fire, 911 dispatchers, and correctional facility staff (~234). <i>Still need to add Rivers Correctional</i>	
		Utility workers essential for maintenance of power, water, and sewage system functioning (~29)	
		Transportation workers transporting fuel, water, food, and medical supplies as well as public ground public transportation (~297)	
3		Telecommunications/IT for essential network operations and maintenance(~84)	Other important societal groups for a pandemic response but of lower priority
		Other key government health decision-makers (~ 10)	
		Funeral directors/embalmers (10)	
4		Healthy persons 2-64 years not included in above categories (~13,975)	All persons not included in other groups based on objective to vaccinate all

09/20/07 Version 2.1 Draft
 03/03/08 Version 2.2 Draft
 05/31/08 Version 3.1 Draft
 11/18/08 Version 3.2 Draft



those who want protection

• DEFINITIONS AND RATIONALES FOR PRIORITY GROUPS (from NVA/ACIP)

1. Healthcare workers and essential healthcare support staff

a) Definition

Healthcare workers (HCW) with direct patient contact (including Roanoke-Chowan Hospital, Guardian Care Nursing Home, physician's offices, clinics, home care, blood collection centers, and EMS) and a proportion of persons working in essential healthcare support services needed to maintain healthcare services (e.g. dietary, housekeeping, admissions, lab, etc.). Also included are healthcare workers in public health with direct patient contact, including those who may administer vaccine or distribute influenza antiviral medications, and essential public health support staff for these workers. In Hertford County, all 70 HCPHA employees will be needed during mass medication distribution. Employees in the Hertford County Department of Social Services and at Roanoke Chowan Human Services will also be essential for managing the societal/psychological impact.

b) Rationale

The pandemic is expected to have substantial impact on the healthcare system with large increases in demand for healthcare services placed on top of existing demand. HCW will be treating influenza-infected patients and will be at risk of repeated exposures. Further, surge capacity in this sector is low. To encourage continued work in a high-exposure setting and to help lessen the risk of healthcare workers transmitting influenza to other patients and HCW family members, this group was highly prioritized. In addition, increases in bed/nurse ratios have been associated with increases in overall patient mortality. Thus, substantial absenteeism may affect overall patient care and outcomes.

2. Groups at high risk of influenza complications

a) Definition

Persons 2-64 years with a medical condition for which influenza vaccine is recommended and all persons 6-23 months and 65 years and older. Excludes nursing home residents and severely immunocompromised persons who would not be expected to respond well to vaccination.

b) Rationale

These groups were prioritized based on their risk of influenza-related hospitalization and death and also their likelihood of vaccine response. Information from prior pandemics was used whenever possible, but information from interpandemic years was also considered. Nursing home residents and severely immunocompromised persons would be prioritized for antiviral treatment and/or prophylaxis and vaccination of healthcare workers and household contacts who are most likely to transmit influenza to these high risk groups.



3. Critical infrastructure

a) Definitions and rationale

Those critical infrastructure sectors that fulfill one or more of the following criteria: have increased demand placed on them during a pandemic, directly support reduction in deaths and hospitalization; function is critical to support the healthcare sector and other emergency services, and/or supply basic necessities and services critical to support of life and healthcare or emergency services. Groups included in critical infrastructure are needed to respond to a pandemic and to minimize morbidity and mortality, and include the following sectors:

- Key government leaders and health decision-makers who will be needed to quickly move policy forward on pandemic prevention and control efforts
- Public safety workers (firefighters, police, and correctional facility staff, including dispatchers) are critical to maintaining social functioning and order and will contribute to a pandemic response, for example by ensuring order at vaccination clinics and responding to medical emergencies
- Utility service workers (water, power, and sewage management) are prioritized as the services they provide are also essential to the healthcare system as well as to preventing additional illnesses from lack of these services unrelated to a pandemic.
- Transportation workers who maintain critical supplies of food, water, fuel, and medical equipment and who provide public transportation, which is essential for provision of medical care and transportation of healthcare workers to work and transportation of ill persons for care
- Telecommunication and information technology services critical for maintenance and repairs of these systems are also essential as these systems are now critical for accessing and delivering medical care and in support of all other critical infrastructure
- Mortuary services will be substantially impacted due to the increased numbers of deaths from a pandemic and the fact that impact will be high in the elderly, a growing segment of the population

4. Public health emergency response workers

a) Definition

This group includes persons who do not have direct patient care duties, but who are essential for surveillance for influenza, assessment of the pandemic impact, allocation of public health resources for the pandemic response, development and implementation of public health policy as part of the response, and development of guidance as the pandemic progresses.

b) Rationale

Persons in this sector have been critical for past influenza vaccine pandemics and influenza vaccine shortages and little surge capacity may be available during a public health emergency such as a pandemic.



5. Persons in skilled nursing facilities

a) Definition

Patients residing in skilled nursing facilities. Not included in this group are persons in other residential settings (e.g., assisted living) who are more likely to be mobile, in a setting that is less closed, and have decentralized healthcare.

b) Rationale

This group was not prioritized for vaccine because of the medical literature finding poor response to vaccination and occurrence of outbreaks even in the setting of high vaccination rates. Other studies have suggested that vaccination of healthcare workers may be a more effective strategy to prevent influenza in this group. Further, surveillance for influenza can be conducted in this group and antiviral medications used widely for prophylaxis and treatment. Ill visitors and staff should also be restricted from visiting nursing home facilities during outbreaks of pandemic influenza. This strategy for pandemic influenza vaccine differs from the interpandemic vaccination strategy of aggressively vaccinating nursing home residents. The rationale considers several factors: 1) these populations are less likely to benefit from vaccine than other groups who are also at high risk; 2) other prevention strategies feasible for this group are not possible among other high-risk groups; 3) the overall morbidity and mortality from pandemic is likely to severely impact other groups of persons who would be expected to have a better response to the vaccine; and 4) a more severe shortage of vaccine is anticipated.

6. Severely immunocompromised persons

a) Definition

Persons who are undergoing or who have recently undergone bone marrow transplantation and others with severe immunodeficiency (e.g., AIDS patients with CD4 counts <50, children with SCID syndrome, recent bone marrow transplant patients). The numbers of persons in these categories is likely much smaller than the anticipated number assumed in tiering above, but sources for more specific estimates have not been identified.

b) Rationale

These groups have a lower likelihood of responding to influenza vaccination. Thus, strategies to prevent severe influenza illness in this group should include vaccination of healthcare workers and household contacts of severely immunocompromised persons and use of antiviral medications. Consideration should be given to prophylaxis of severely immunocompromised persons with influenza antivirals and early antiviral treatment should they become infected.

7. Children <6 months of age

a) Rationale

Influenza vaccine is poorly immunogenic in children <6 months and the vaccine



is currently not recommended for this group. In addition, influenza antiviral medications are not FDA-approved for use in children <1 year old. Thus, vaccination of household contacts and out-of-home caregivers of children <6 months is recommended to protect this high-risk group.

- **INFLUENZA VACCINE ESTIMATIONS**

The approximate number of vaccines needed per priority group are listed in the Priority Group table above. These numbers overlap because many people will serve in more than one role. Up to 12,000 vaccines will be needed to vaccinate the priority groups. The Vaccine Estimation Sheet will be used to calculate the numbers needed in the future (will become Appendix D).

- **STORAGE AND DISTRIBUTION**

- Medications for mass distribution will not be received directly at the dispensing site. Refer to the Hertford County SNS/Mass Medication Distribution Plan for details. Not made available for public viewing due to the need for safety and security of the vaccines.
- All vaccine will be administered as 10 dose multi-packs (if available) except for the following groups which will be administered single dose vaccine due to their mobility and risk status:
 - one or more high risk medical conditions with age 65 or greater
 - two or more high risk medical conditions with age 6 months to 64 years
 - history of high-risk hospitalization
 - pregnant women
- Locations that can best administer vaccine on-site will do so instead of reporting to mass vaccination sites directed by the HCPHA, as long as those sites can assure proper security of the vaccine and its administration.
- Memoranda of Understanding are being established between the HCPHA and agencies caring for vulnerable populations (i.e. the nursing home, family care homes, the hospital, the home health care agency) to receive vaccinations and/or antiviral medications from the HCPHA and administer to their population.

VI. ANTIVIRALS

- **PRIORITY GROUPS**

The recommendations from the NVAC/ACIP were followed to determine priority groups to receive antiviral medications. The groups 1-5 and 8-9 listed are treatment priorities. Group 6 is for post-exposure prophylaxis only.

1. Patients admitted to the hospital with serious illness
2. Healthcare workers (HCW) with direct patient contact and emergency medical services personnel
3. Highest risk outpatients-immunocompromised and pregnant women



4. Pandemic health responders (public health, vaccinators, public safety and government decision makers.
 5. Increased risk outpatients – young children 12-23 months and adults > 65 and persons with underlying health conditions.
 6. Outbreak response in nursing homes and other residential settings.
 7. HCWs in emergency departments, intensive care units, dialysis centers, and EMS providers.
 8. Pandemic societal responders (e.g., critical infrastructure groups as defined in the vaccine priorities) and HCW without direct patient contact.
 9. Highest risk outpatients.
 10. Other HCWs with direct patient contact.
- Treatment (T) requires a total of 10 capsules and is defined as 1 course. Post-exposure prophylaxis (PEP) also requires a single course. Prophylaxis (P) is assumed to require 40 capsules (4 courses) though more may be needed if community outbreaks last for a longer period.
 - **ESTIMATED ANTIVIRAL MEDICATIONS NEEDED** – The table below was taken directly from the NC Pan Flu Antiviral Purchase and Distribution Plan created January 2008. The aforementioned document will be accessed, reviewed and plans made to receive and distribute the amount of antiviral courses that will be received in Hertford County by the Hertford County Public Health Authority. Roanoke Chowan Hospital will receive antiviral courses directly.



	Group	US population¹ (estimated)	Strategy²	# courses (US)¹	# courses (NC)³
1	Patients admitted to the hospital	10,000,000	Treatment	7,500,000	225,000
2	HCWs with direct patient contact and EMS providers	9,200,000	Treatment	2,400,000	72,000
3	Highest risk outpatients	2,500,000	Treatment	700,000	21,000
4	Pandemic health responders	3,300,000	Treatment	900,000	27,000
5	Increased risk outpatients	85,500,000	Treatment	22,400,000	672,000
6	Outbreak response in nursing homes and residential settings	N/A	Post-exposure prophylaxis	2,000,000	60,000
7	HCWs in emergency departments, ICUs, and dialysis units	1,200,000	Prophylaxis	4,800,000	144,000
8	Pandemic societal responders	10,200,000	Treatment	2,700,000	81,000
9	Other outpatients	180,000,000	Treatment	47,300,000	1,419,000
	TOTALS			90,700,000	2,721,000

¹ Estimated US population for each group as well as the number of courses needed for these groups (US) were obtained from the US DHHS Pandemic Influenza Plan, Part 1, November 2005.

² **Treatment** refers to providing a treatment course of antiviral medications when an individual becomes ill [one pill twice a day for 5 days; total = 10 pills]. **Post-exposure prophylaxis** refers to providing a course of prophylaxis to an individual who has been exposed to a person with influenza [one pill once a day for 10 days; total = 10 pills]. **Prophylaxis** refers to providing a course of prophylaxis to an individual throughout a six week outbreak of influenza [one pill once a day for 40 days; total = 40 pills].

³ # courses for each of these groups (NC) were extrapolated from the US numbers (assuming NC population is 3% of the US population)

• STORAGE AND DISTRIBUTION

- In the event that supplies of antivirals are very limited, only those persons listed in priority groups 1-5 will receive antivirals for treatment if they have the pandemic influenza. These antivirals will be most likely distributed by healthcare facilities and pharmacies.



- In the event that supplies of antivirals are less limited, prophylaxis will begin after ill patients with pandemic influenza have been treated. Prophylaxis administration of antivirals will be managed by the Hertford County Public Health Authority according to the Hertford County Strategic National Stockpile/Mass Medication Administration Plan.
- Medications for mass distribution will not be received directly at the dispensing site. Refer to the Hertford County SNS/Mass Medication Distribution Plan for details. Not made available for public viewing due to the need for safety and security of the antiviral medications.

- **PRIVATE SECTOR SUPPLIES**

The HCPHA will provide the antivirals needed by the private primary care providers when received from the state. Roanoke Chowan Hospital will receive their supply of antivirals directly from the state.

Current recommendations do not support prophylaxis for everyone and therefore private supplies would need to be purchased by the agency or organization.

Roanoke Chowan Hospital is not currently stockpiling antiviral medications for treatment.



VII DISEASE CONTAINMENT

- **COMMUNITY CONTAINMENT MEASURES**

- **SOCIAL DISTANCING**

Hertford County must be prepared to face the first wave of the next pandemic without vaccine and sufficient quantities of influenza antiviral medications. During a pandemic, decisions about how to protect the public before an effective vaccine is available need to be based on scientific data, ethical considerations, consideration of the public's perspective of the protective measures and the impact on society, and common sense.

Necessity of social distancing

Social distancing measures are necessary because isolation and quarantine are only a partial solution in that many persons may be able to infect others before they know that they are infected or sick due to the pandemic influenza virus. The closing of schools/childcare programs and the implementation of social distancing measures could prove extremely important to mitigating the effects of a pandemic influenza event.

Timing of social distancing

Implementation of social distancing must be early enough to preclude the initial steep upslope in case numbers and long enough to cover the peak of the anticipated epidemic curve while avoiding intervention fatigue. Some interventions that may be highly useful tools in the framework of a disease control strategy will need to be applied judiciously to balance socioeconomic realities of community functioning in Hertford County.

Social distancing measures for adults and children will be implemented for a mild to medium severity pandemic only if it is determined locally that their use is warranted due to characteristics of the pandemic within the community (for example school children are being heavily affected).

Forms of social distancing

Decisions about what tools to be used during a pandemic will be based on the observed severity of the event, its impact on specific subpopulations, the expected benefit of the interventions, the feasibility of success in modern society, the direct and indirect costs, and the consequences on critical infrastructure, healthcare delivery, and society. Therefore, specific measures and timelines cannot be planned for exactly, though scenarios can be discussed and used for guidance in the case of a pandemic event.

Two major forms of non-pharmaceutical interventions are:

1. Social distancing of adults -Though businesses may not close per se, limiting adult interaction is also important to mitigate the effects of a pandemic. When



possible during a pandemic, some personnel should be allowed to work from home to limit adult interaction in the workplace. Business should consider having half of the workforce in the physical plant at one time so distancing can occur at the workplace. Businesses in Hertford County will be educated and contacted during pre-pandemic phases in regards to the implications of persons having to stay home due to personal illness, family illness, or childcare needs.

Use of social distancing measures to reduce contact between adults in the community and workplace, including cancellation of large public gatherings and alteration of workplace environments and schedules to decrease social density and preserve a healthy workplace to the greatest extent possible without disrupting essential services. Enable institution of workplace leave policies that align incentives and facilitate adherence with the non-pharmaceutical interventions.

2. Dismissal of students from school (including public and private schools as well as colleges and universities) and school-based activities and closure of childcare programs, coupled with protecting children and teenagers through social distancing in the community may be suggested to achieve reductions of out-of-school social contacts and community mixing.

For a severe pandemic, dismissal of students from schools and school-based activities and closure of child-care programs, in combination with means to reduce out-of-school social contacts and community mixing for these children, may encompass up to twelve weeks of intervention and would be enacted. If novel influenza clusters occur in Hertford County during Pandemic Phase 4, 5, or 6, the Hertford County Health Director will consult with the Superintendent of Hertford County Public Schools, Roanoke Chowan Community College and Chowan University to discuss and possibly enact school closures. Communication will be maintained between the health director and school officials throughout the course of the pandemic event to determine the length of closure that may be necessary.

It is unlikely that the first novel influenza clusters will occur in Hertford County therefore an Emergency Declaration from the Governor to close all schools, childcare centers, colleges and universities will most likely precede the need for local decisions.

School Systems will be particularly impacted by social distancing measures. See Section XI for specific school system planning and response information.

It may not be possible for all children to have one parent that can stay at home during a school closure. In this instance, some children may have to be cared for by others who are also caring for children. Additionally, it is unrealistic to think that children will be isolated at home without social contact for up to twelve weeks. Therefore, it is recommended that group sizes be held to a minimum and that mixing between groups be minimized (children should not move from group



to group of or have extended social contacts outside the designated group). This message will be spread to communities in Hertford County as much as possible during pre-pandemic stages in order for parents to plan and prepare for this possibility.

The “Interim Pre-Pandemic Guidance: Community Strategy for Pandemic Influenza Mitigation in the US, - Early, Targeted, Layered Use of Non-pharmaceutical Interventions” from the CDC and DHHS is seen as the current standard for social distancing and community mitigation. This guidance will be referred to often when preparing for a pandemic event in Hertford County.

- **Isolation and Quarantine**

Determinations for the use of isolation and quarantine will follow the Department of Health and Human Services and Centers for Disease Control and Prevention’s *Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States*.

Decisions on whether to employ isolation and quarantine will depend on the observed severity of the pandemic event, its impact on specific subpopulations, the expected benefit of the interventions, the feasibility of success in modern society, the direct and indirect costs, and the consequences on critical infrastructure, healthcare delivery, and society. Implementation of quarantine and isolation should occur early enough to preclude the initial steep upslope in case numbers and long enough to cover the peak of the anticipated epidemic curve while avoiding intervention fatigue.

Isolation of ill individuals will reduce the onward transmission of disease after such individuals are identified. Isolation of all persons with confirmed or probable pandemic influenza may occur in the home or healthcare setting, depending on the severity of an individual’s illness and/or the current capacity of the healthcare infrastructure. Isolation will be suggested for all stages of a pandemic influenza event regardless of the severity of the event. Isolation may be mandatory during WHO Pandemic Phases 1-5, however would probably become voluntary during WHO Pandemic Phase 6 due to the widespread infection and the assumed inability of the public health system to track all pandemic influenza cases.

The goal of isolation is to reduce transmission by reducing contact between persons who are ill and those who are not. Ill residents not requiring hospitalization would be requested to remain at home or at a friend or relative’s home voluntarily for the infectious period, approximately 7-10 days after symptom onset. Voluntary isolation of ill children and adults at home is predicated on the assumption that many ill individuals who are not critically ill can, and will need to be cared for in the home.

Quarantine of members of households with ill persons will facilitate the termination of transmission chains. Voluntary home quarantine of members of households with confirmed or probable influenza case(s) may also occur. Quarantine will be suggested



for all stages of a pandemic influenza event, but may not be recommended if the pandemic event is unusually mild. Quarantine may be mandatory during WHO Pandemic Phases 1-5, however would probably become voluntary during WHO Pandemic Phase 6 due to the widespread infection and the assumed inability of the public health system to track all pandemic influenza cases.

The goal of quarantine is to reduce community transmission from members of households in which there is a person ill with pandemic influenza. Members of households in which there is an ill person may be at increased risk of becoming infected with a pandemic influenza virus. As determined on the basis of known characteristics of influenza, a significant proportion of these persons may shed virus and present a risk of infecting others in the community despite having asymptomatic or only minimally symptomatic illness that is not recognized as pandemic influenza disease. Thus, members of households with ill individuals may be recommended to stay home for an incubation period of 7 days (voluntary quarantine) following the time of symptom onset in the household member. If other family members become ill during this period, the recommendation is to extend the time of voluntary home quarantine for another incubation period; 7 days from the time that the last family member becomes ill.

Upon suspicion or confirmation of an individual with novel influenza virus infection, mandatory isolation and quarantine may be facilitated through the order of the Hertford County Health Director (see Appendix H - Statutes Related to Isolation and Quarantine). Draft orders will be used (see Appendix I – Hertford County Isolation Order and Appendix J – Hertford County Quarantine Order) and the person(s) affected notified and presented with the order. Law enforcement may also be notified through the Hertford County EOC/Director of Emergency Management order to enforce the mandatory isolation/quarantine order.

If isolation and quarantine becomes a voluntary action, the community will be advised as to how many days to remain at home, when to seek care, and where to call for information. An information hotline will be available at the Hertford County Public Health Command Center to answer questions regarding voluntary isolation and quarantine measures.

- **INDIVIDUALS IN HOME ISOLATION AND QUARANTINE**

Requirements for both mandatory and voluntary isolation to be successful include:

- prompt recognition of illness,
- appropriate use of hygiene and infection control practices in the home setting,
- measures to promote voluntary compliance,
- commitment of employers to support the recommendation that ill employees stay home, and
- support for the financial, social, physical, and mental health needs of patients and caregivers.



Requirements for success of quarantine include:

- o prompt and accurate identification of an ill person in the household,
- o voluntary compliance with quarantine by household members,
- o commitment of employers to support the recommendation that employees living in a household with an ill individual stay home,
- o the ability to provide needed support to households that are under voluntary quarantine,
- o guidance for infection control in the home and
- o adherence to ethical principals in use of quarantine during pandemics, along with proactive anti-stigma measures should be assured.

Ill individuals and their household members need clear, concise information about how to care for an ill individual in the home and when and where to seek medical care. An information hotline will be available at the Hertford County Public Health Command Center for calls related to questions and concerns regarding persons under both mandatory and voluntary isolation and quarantine. Informational messages about how to care for persons at home and how and when to seek medical care will be made available by the HCPHA at all the fire department sites, to all primary care providers, to all radio stations within listening distance of Hertford County and through newsprint. The Pitt County Health Department will assure that the television stations located in Pitt County broadcast this information. Hertford County does not have its own television station but residents receive television signals for Pitt County. The HCPHA will assure that the pertinent television stations in Virginia are broadcasting needed information.

The Hertford County Department of Social Services will coordinate the provision of supplies such as food and medicine to persons under both voluntary and mandatory isolation and quarantine. Persons under mandatory isolation and quarantine during WHO Pandemic Phases 1-5 will be contacted by the HCPHA clinic staff on a daily basis to check on illness and possible needs. Contacting all residents during voluntary isolation/quarantine or during a Phase 6 event may not be necessary or a priority.

- **SPECIAL NEEDS POPULATION** – See the **Support for Vulnerable Populations** section under VIII Emergency Response.
- **USE OF MASK/PPE**
 - o **HCPHA Staff** - Those who work closely with (either in contact with or within 6 feet) people known or suspected to be infected with pandemic influenza should wear a N95 respirator that has been tested within the last 12 months to ensure a proper fit. Because there is a potential that the pandemic flu virus can be spread through airborne as well as droplet transmission, all employees will be provided the opportunity to be tested for a N95 respirator and provided a N95 respirator. N95 respirators have been stockpiled by the HCPHA.



It is recognized that N95 mask can be cumbersome for those who do not routinely wear respirators. Surgical masks are effective against droplet transmission of respiratory viruses and are available for use by staff that will not be within 6 feet of people known or suspected to be infected with pandemic influenza. Staff electing to wear a surgical mask will be warned that respiratory viruses can be spread by airborne transmission and that persons contagious with pandemic influenza may not yet be symptomatic.

- o **Community** – The HCPHA is beginning to stockpile surgical masks for distribution in the community. The masks will first be distributed to essential county employees who do not already have access to surgical masks.
- o **Employees of Other Agencies/Organizations** - Employers are obligated to provide their employees with protective gear needed to keep them safe while performing their jobs. The types of PPE recommended for pandemic influenza will be based on the risk of contracting influenza while working and the availability of PPE. Visit www.pandemicflu.gov/plan/healthcare/maskguidancehc.html for the most recent recommendations on wearing masks.



VIII EMERGENCY RESPONSE

A severe influenza pandemic is expected to significantly increase the demand for health care services at a time when the availability of health care workers will be reduced due to illness. In a severe pandemic, the imbalance between supply and demand is likely to overwhelm current health care system capacity and necessitate implementation of alternate strategies to manage the demand on health system resources.

The Hertford County Public Health Authority (HCPHA), Roanoke Chowan Community Health Center (RCCHC), Hertford County Emergency Medical Services (EMS) and Roanoke Chowan Hospital (RCH) have formed a Health Care Coalition that is and will plan for the Health Care System Response in Hertford County during a severe pandemic. All internal plans are being shared among members to ensure all entities are aware of the roles and responsibilities of each Health Care agency and that all emergency response needs are being addressed.

• MEDICAL SURGE CAPACITY

During a pandemic impacting Hertford County, all efforts will be employed to sustain the functionality of the health care system while maintaining an acceptable level of medical care. In order to accomplish this, health care delivery system partners may need to:

- 1) Limit the provision of health care services to patients with urgent, health problems requiring hospitalization
- 2) Take steps to increase the bed capacity at Roanoke Chowan Hospital to care for large numbers of influenza patients
- 3) Implement pandemic-specific triage and management procedures.
- 4) Mobilize, reassign and deploy staff within and between health care facilities to address critical shortfalls
- 5) Provide alternative mechanisms for residents to address non-urgent health care needs.
- 6) Identify alternate care facilities.

• PANDEMIC PHASE 1, 2, 3 ACTIVITIES

- All healthcare workers are encouraged to get the flu vaccine.
- Ensure that all healthcare workers who will have direct patient contact are fit tested for their N-95 respirators.
- Teach healthcare workers and the public about respiratory/cough etiquette.
- The HCPHA is educating health care providers about influenza pandemics through presentations and flyers.
- The HCPHA involves health care providers in community pandemic response planning through the Hertford County Emergency Preparedness Council, the



- Hertford County Health Care Coalition and/or drills and tabletop exercises.
- RCH and RCCHC are developing pandemic influenza response plans that address at a minimum, medical surge capacity, triage, infection control, communication and staffing issues.
 - The HCPHA has a part-time Medical Reserve Corp coordinator responsible for identifying and training volunteers to assist in public health emergencies.
 - The Hertford County Citizen Corp Council provides education and assistance to the vulnerable populations (elderly, remote, economically depressed, illiterate, non-English speaking) in Hertford County and seeks volunteers for CERT training.
 - The HCPHA is facilitating the development of protocols for reprioritizing HCPHA functions during a pandemic and mobilizing staff to support maintenance of critical public health services.
 - HCPHA is communicating routinely with the Hertford County Emergency Planning Council members on the status of a novel virus and its potential for causing a pandemic.
 - The HCPHA is encouraging all agencies and businesses to develop a continuity of operations plan.
 - Create instructions for families for caring for patients with the flu who can be treated at home to be distributed when appropriate.
 - The HCPHA has encouraged all healthcare and emergency preparedness agencies to maintain an updated list of employees, their drug allergies and contact information.
 - Establish Memoranda of Understanding between the HCPHA and agencies caring for vulnerable populations (i.e. the nursing home, family care homes, the hospital, the home health care agency) to receive vaccinations and/or antiviral medications from the HCPHA and administer to their population.
 - Establish Memoranda of Understanding between the HCPHA and agencies employing health care workers or housing students (i.e. the hospital, Chowan University, the nursing home) to receive vaccinations and/or antiviral medications from the HCPHA and administer to their population.
 - All healthcare agencies should establish a plan to manage asymptomatic personnel exposed to the virus and symptomatic personnel.
 - Roanoke Chowan Hospital is screening all patients hospitalized and diagnosed with community acquired pneumonia to determine if they traveled to a previously affected novel influenza A area within the last 10 days or had close contact with somebody who has within the last 10 days.
 - All persons seeking care at a primary care setting who are diagnosed with community acquired pneumonia should be screened to determine if they traveled to a previously affected novel influenza A area within the last 10 days or had close contact with somebody who has within the last 10 days.
 - Communicate with the community using all means of media and avenues of distribution available including through the school and childcare center children.

• PANDEMIC PHASE 4, 5, 6 ACTIVITIES

09/20/07 Version 2.1 Draft
03/03/08 Version 2.2 Draft
05/31/08 Version 3.1 Draft
11/18/08 Version 3.2 Draft



- HCPHA will:
 - Work with the Health Care Coalition to heighten preparedness activities and monitor the impact of a pandemic on health care facilities.
 - Initiate active screening of symptomatic patients for either a personal or contact history of travel to geographic area with novel virus activity.
 - Ensure that the Hertford County healthcare providers receive the case identification criteria, laboratory testing and treatment protocols issued by the NC Division of Public Health. Refer to the NC Pandemic Flu Plan, Appendix P-1, for current guidance for healthcare providers.
 - Disseminating instructions for caring for patients who can be treated at home.
 - Provide the Hertford County Public School Superintendent, contacts at the three non-public schools and the Hertford County Partnership for Children with the most current CDC Community Mitigation Guidance http://www.pandemicflu.gov/plan/community/community_mitigation.pdf
 - Reprioritize HCPHA functions and direct the mobilization of staff to meet emerging needs of the pandemic.
 - Operationalize the Hertford County Public Health Command Center when appropriate.
 - Identify and prioritize first responders and health care staff to receive antiviral medications, if used as a prophylaxis, and influenza vaccine according to protocols issued by the State Division of Public Health.
 - Vaccinate first responders.
 - Distribute vaccine to health care providers and activate mass vaccination clinics to vaccinate priority groups.
 - Coordinate through Hertford County Emergency Management the acquisition of additional medical supplies and equipment for the hospital.
 - Request state and federal resources such as the Strategic National Stockpile, through Hertford County Emergency Management.
- The Roanoke Chowan Community Health Center will:
 - Establish a flu clinic in a wing at their practice site to triage, evaluate and/or treat influenza patients not requiring hospital care. The flu clinic space will be expanded as needed.
 - Establish a public call center that will provide information and medical advice over the telephone including information on how to access the health care system during emergencies Hispanic/Latino translation services.
 - Enhance infection control methods including monitoring for appropriate use of PPE.
 - Close their flu clinics and merge staff with the hospital emergency room when staffing shortages warrant.
- Roanoke Chowan Hospital will:
 - Activate their Hospital Emergency Incident Command system (HEICS) when there are one or more cases of pandemic influenza in Hertford



County.

- Vaccinate their health care workers when vaccine becomes available.
- Establish a separate triage area for persons presenting with possible influenza, fever or respiratory disease
- Establish a separate triage area for persons at high risk for severe complications such as pregnant women and immunocompromised persons.
- Refer residents to the flu clinic at the RCCHC Ahoskie site as appropriate.
- Enhance infection control methods including monitoring for appropriate use of PPE.
- Develop criteria for implementing the following strategies:
 - Canceling elective admissions and elective surgeries
 - Implementing protocols to expand internal hospital bed capacity
 - Activating alternate care facilities to conduct triage of flu patients or to provide expanded bed capacity.
 - Implementing early discharge protocols for patients not requiring inpatient care.
 - Restricting access to the hospital including the use of law enforcement.
 - Early discharge of newborn infants to home and closing the facility to new admissions and transfers in the event that nosocomial transmission of the pandemic strain occurs.
- Hertford County Emergency Services will:
 - Provide the resources requested by the hospital, community health center, public health authority, social services and law enforcement.
 - Activate the EOC when warranted.
 - Enhance infection control methods including monitoring for appropriate use of PPE.
 - Assist with educating the public.

• **SUPPORT FOR VULNERABLE POPULATIONS**

Some populations in the county share common characteristics that make them more susceptible to not receiving information and assistance. These populations are vulnerable to financial constraints, a lack of available resources and services and insufficient awareness of impending or current emergency situations. They often find it difficult to advocate for, or provide for, all their needs themselves and must rely on others for at least some support services.

The Hertford County Public Health Authority defines vulnerable populations that need special attention during emergency planning and plan implementation to be:

- Homebound individuals
- People with disabilities
- Children
- Indigent persons
- Those suffering from mental health issues



- Limited English speaking
- Institutionalized persons (Roanoke Chowan Hospital, Guardian Care, numerous assisted living facilities)
- Incarcerated individuals (Three Rivers Private Prison, Hertford County Jail)
- Those who live in remote areas of the county
- Those with low literacy
- Those without reliable transportation
- Undocumented aliens
- Chowan College students

Various agencies and groups in Hertford County collaborate to ensure the needs of the county's vulnerable populations are met. These agencies and groups include:

- The Hertford County Public Health Authority
 - The Hertford County Department of Social Services
 - Roanoke Chowan Human Services
 - The Hertford County Office of Aging
 - Hertford County Sheriff's Office
 - Roanoke Chowan Community Health Center
 - Hertford County Emergency Management
 - Hertford County Emergency Medical Services
 - Town and County Managers
 - Roanoke Chowan Hospital
 - Hertford County Citizen Corp Council
 - Hertford County Operation In As Much Faith Based Group
 - St Thomas Episcopal Church Hispanic Ministry
 - Chowan University President and Assistant VP for Student Affairs
- Operation "In As Much" is a faith-based organization of various Hertford County church denominations and cultures with a mission of assisting identified populations needing help. This group will be working with the Hertford County Citizen Corp Council to begin a church-based assistance program prior to and during emergencies for at-risk populations within their geographical locations.
- The Hertford County Citizen Corp Council is a group of concerned citizens with a mission to provide education prior to emergencies and assistance during and following an emergency to selected vulnerable populations (disabled, remote, indigent, illiterate, limited English speaking, unreliable transportation and homebound). This group has identified churches to be the most effective organizations to identify vulnerable populations within their area or township and to ensure they are informed and safe. The Citizen Corp Council will be working with the Operation "In As Much" leaders to further formalize the roles of the churches in emergency communication and response to the vulnerable populations identified to be near their geographical location. The HCPHA and Hertford County Emergency Services serve as consultants to this group.



- The HCPHA is establishing Memoranda of Understanding between the HCPHA and agencies employing health care workers that house the elderly, disabled, sick or students (i.e. the nursing home, family care homes, the hospital, Chowan University) to receive vaccinations and/or antiviral medications from the HCPHA and administer to their population.
- The Hertford County Department of Social Services, in collaboration with the Hertford County Public Health Authority, is establishing policies and procedures to guide the establishment of a special needs shelter to provide electricity to Hertford County residents dependent on medical equipment if power is lost.
- The Hertford County LEPC has identified the following methods for communicating emergency planning education and information to ensure that all residents are made aware:
 - Local Newspaper
 - Local Faith Based Churches
 - School Telephone Automatic System
 - Health Department
 - Physician's Offices
 - Pharmacies
 - Grocery/Drug Stores
 - Insert in electric/telephone/gas bills
 - Utilize Daycare/Adult Daycare facilities to get information back to the home(s)
 - Office of Aging Newsletter and Call Alert system
 - Nursing Homes
 - Community College/University
 - Fitness Centers
 - Wal-Mart
 - Convenient Stores
 - Home Health Agencies
 - Local call in number at HCPHA to be established to distribute information

The current estimated population of Hispanics in Hertford County is 400 residents. The HCPHA PIO will use www.google/language_tools to translate English messages into Spanish. There are no other languages spoken by limited-English speaking populations in Hertford County. HCPHA will explore buying software to augment the translation of lengthy messages.

• **MASS FATALITY PLANNING**

09/20/07 Version 2.1 Draft
03/03/08 Version 2.2 Draft
05/31/08 Version 3.1 Draft
11/18/08 Version 3.2 Draft



The vast majority of resources devoted to pandemic management will, and should be, devoted to care for the living. Nonetheless, appropriate and respectful treatment of pandemic flu fatalities is a moral necessity, and can be of significant psychological assurance and comfort to both the intimates of the deceased and the larger community. If the worst case fatality model, as many as 150 deaths could occur over the course of 2-3 weeks.

Risk groups for severe and fatal infections from pandemic flu cannot be predicted with certainty. During annual fall and winter influenza season, infants and the elderly, persons with chronic illnesses, and pregnant women are usually at higher risk of complications from influenza infections. In contrast, in the 1918 pandemic, most deaths occurred among young, previously healthy adults. The fatality rate for pregnant women during the 1918 pandemic was over 50%.

Supplies for caring for the remains of the deceased (such as embalming fluid, coffins, body bags and areas for storage) will be in very short supply during the pandemic period as multiple waves hit the country simultaneously.

Funeral directors will likely need guidance on risks of handling bodies of pandemic flu fatalities, but typically have a level of comfort in handling bodies of people with infectious diseases. They practice universal precautions with all bodies. The WHO website provides guidance for the handling of fatalities from pandemic influenza.

One to two trained morticians/embalmers are required to perform the preparation process (recovery, storage, preparation, and casketing) and this process takes about four hours.

There are four funeral homes in Hertford County; three traditionally serve the African American population and one the White population. One of the funeral homes does not prepare bodies nor have embalmers on staff; they contract this service out of the county.

The county does not have a medical examiner and depends on a medical examiner from a neighboring county when required.

The Hertford County Emergency Operations Plan/All Hazards Plan states that the Hertford County Health Director is responsible for the management of mass fatalities. The Hertford County Department of Social Services is responsible for all unclaimed bodies.

- **Morgue capacity**



- Roanoke Hospital has two refrigerated drawers in their morgue. Only one of the funeral homes has a refrigeration unit that can handle two bodies. A refrigerated truck would need to be commandeered by the health director if needed. Establishing an MOU with local refrigerated trucks is not practical. Care will be taken to mask the signage on the truck to protect the owner's business.
- A funeral home director shared that up to 80 bodies could be maintained in a tractor trailer size refrigerated truck.
- Another funeral home director shared her concern about not having enough body bags available in the county.

- **Embalming Capacity**

- Hertford County currently has 9 licensed morticians/embalmers, most part-time. There are no retired morticians that can be called to duty. The nine morticians, with an assistant, could divide into two 12 hour work shifts and the 2 teams per shift prepare a total of six bodies per shift or 12 bodies per 24 hours; 84 bodies a week.
- The four funeral homes in Hertford County maintain up to three months of embalming supplies. All intend to increase their on-hand supplies in anticipation of a pandemic.

- **Cremation capacity**

There are no crematories in Hertford County and none of the 9 morticians/embalmers are trained. All bodies are currently cremated in Elizabeth City, Greenville or Suffolk, Virginia. Mass cremation has never been mandated in the United States in any past event. In the unlikely event that mass cremations are mandated, morticians will need an abbreviated training in performing cremations and alternative cremation sites and technologies, such as the incinerator at Roanoke Chowan Hospital, implemented. There is a 24-hour waiting period for performing cremations in North Carolina, a rule that is likely to be temporarily lifted during a pandemic.

- **Burial capacity**

- The majority of the deceased will not be owners of cemetery property.
- The three respondents from the African American Funeral Homes feel there are enough burial grounds to manage mass fatalities. The respondent from the White funeral home feels there is not enough capacity at this time but cited two new cemeteries being planned in the county.
- One Funeral Home owner shared that one acre of land can provide space for 1,115 5x10 grave sites.



- Many families may not be able to have traditional burials and funeral services within several days of the death of the deceased, as it may become necessary to store bodies for longer periods, and personnel to assist with preparation and burial are also affected by the pandemic. If a public gatherings ban is in effect, funerals would be postponed until the ban is lifted.
- "Green burials", involving uncasketed burial without embalming can be performed with minimal assistance from funeral professionals. This may be a more attractive option to families, particularly rural residents with land, than body storage or funeral postponement. There is also opportunity for fraud or abuse and the public would need to be educated on necessary procedures for green burial, and site selection of graves in families' cemeteries.

• **PSYCHOSOCIAL SUPPORT ISSUES AND PLANS**

- The Roanoke Chowan Human Services has been a member of the Hertford County Emergency Preparedness Council for over four years. They maintain a disaster management plan indicating that resources will be provided, to the extent possible, to provide counseling to health care workers/first responders on sight and to distraught residents through their crisis line.
- The HCPHA employees will receive training in psychological first aid within the next year.
- The social workers with the Division of Social Services will also be tasked to provide psychological support particularly at the mass medication distribution site.

• **SECURITY/PUBLIC SAFETY ISSUES**

The Hertford County Sheriff's office will be responsible for providing security and ensuring the public's safety during a pandemic. The Ahoskie, Murfreesboro and Winton town police departments will also be responsible for ensuring security and the public's safety when situations arise within their jurisdictions.

All law enforcement agencies within Hertford County have been encouraged to develop a continuity of operations plan to deal with staff shortages due to illness, etc.

IX COMMUNICATIONS

A primary role of the Hertford County Public Health Authority during any emerging health treat is to communicate information to the public and health care providers.

• DISSEMINATION OF INFORMATION

Pre-pandemic Phase

Public Information

Information for the public provided by the NC Division of Public and the CDC are being utilized by the PIO and other staff at HCPHA to prepare the county's residents for an impending pandemic influenza epidemic.

The Hertford County Public Health Authority staff will distribute pandemic influenza information to the public at:

- All meetings with other agencies and residents
- All presentations given by health department employees
- All health fairs

The HCPHA PIO will distribute pertinent pandemic influenza information to the public through:

- Employers
- Schools including Chowan University and Roanoke Chowan Community College
- Churches
- Other government agencies such as social services and emergency medical services
- News articles
- Radio PSAs

The HCPHA staff will distribute pandemic influenza information to their clients during:

- Family planning, Adult Health and HIV Specialty clinics
- Care coordination and outreach activities
- Environmental Health inspections

Healthcare Provider Information

Information to health care providers is being provided through the Local Emergency Preparedness Council members at meetings and through email, during presentations and tabletop exercises.

Pandemic Phase

Public Information

09/20/07 Version 2.1 Draft
03/03/08 Version 2.2 Draft
05/31/08 Version 3.1 Draft
11/18/08 Version 3.2 Draft

During a pandemic influenza event when communication with the public will be crucial, an established county Public Information Officer (PIO) team will work together to craft appropriate and unified messages. This team includes:

- The County Manager
- The HCPHA PIO
- The Roanoke Chowan Hospital PIO
- The Emergency Management Director or his designee

During the early stages of a pandemic influenza event when the Hertford County Public Health Command Center is in operation, but the Hertford County Emergency Operations is not yet operational, the HCPHA PIO (Health Promotion Supervisor) will function as the sole PIO (with input from the public health incident commander, planning section and operations section chiefs). The PIO and HCPHA ICS leadership will follow the Hertford County Public Health Risk and Crisis Communication Plan.

Once the Hertford County EOP is opened, a PIO team will be formed and work together to keep the public informed. This team may work from an established Joint Information Center or through a virtual Joint Information network.

During times when the latest information on pandemic influenza must be communicated with the community as soon as possible, the Hertford County Health Director will act as the sole approver of the message to be disseminated. During times when release of information is not extremely time-dependent, content of messages will be shared with other county agencies and entities, though final approval of the message will still reside with the Hertford County Health Director. Every effort will be made to ensure that clear and unified messages from all county agencies and entities (both governmental and non-governmental) are given to the public.

Information during the pandemic phase will be disseminated to the public by the HCPHA through radio, mail, at the fire stations throughout the county and the Hertford County Public Health Authority website in English and Spanish.

Roanoke Chowan Community Health Center will establish a public call center that will provide information and medical advice over the telephone including information on how to access the health care system during emergencies in English and Spanish.

The Hertford County Citizens Corp is exploring the possibility of disseminating critical information to the vulnerable population through the churches.

Healthcare Provider Information

09/20/07 Version 2.1 Draft
03/03/08 Version 2.2 Draft
05/31/08 Version 3.1 Draft
11/18/08 Version 3.2 Draft



Information will be distributed to health care providers through the blast faxing system currently used by the HCPHA to inform providers of health threats. The Emergency Preparedness Coordinator at the HCPHA, the Infection Control Practitioner at Roanoke Chowan Hospital and the Clinical Director at the Roanoke Chowan Community Health Center have determined that they will communicate directly with one another until such time that other means can be established. The HCPHA will also provide information to the health provider community through their website.

- **KEEPING THE HCPHA MANAGEMENT TEAM, STAFF AND ICS LEADERSHIP INFORMED**

The HCPHA has been participating in the NC HAN alert system since its inception. Users at the Health Authority include:

1. The Health Director
2. The Director of Health Planning and Resource Development (includes emergency preparedness coordination)
3. The Director of Personal Health Services
4. The Director of Community Health Services
5. The Administrative Assistant to the Health Director
6. The Lead Environmental Health Specialist
7. The Communicable Disease Nurse

All HCPHA HAN users will monitor for messages from the NC HAN and respond as necessary. The HCPHA Health Planner/EPC will monitor for pandemic influenza information on the Epidemic Information Exchange, Epi-X.

Information that needs to be disseminated immediately to the HCPHA Management Team and public health ICS leadership will be transmitted verbally through the transceivers each commander, officer and chief is assigned followed by a written email as redundant communication.

X CONTINUITY OF OPERATIONS

- **HERTFORD COUNTY PUBLIC HEALTH AUTHORITY CONTINUITY OF OPERATIONS (COOP) PLAN**

- The HCPHA is facilitating the development of protocols for reprioritizing HCPHA functions during a pandemic and mobilizing staff to support maintenance of critical public health services.
- Each division director has identified their essential services, essential staff and management successors.
- When a mass medication distribution site is opened, all staff will be assigned to the POD and all other services will cease for at least 48 hours.

- **HERTFORD COUNTY CONTINUITY OF ESSENTIAL INFRASTRUCTURE**

Plan not developed

- **CONTINUITY OF OPERATIONS IN OTHER AGENCIES AND BUSINESSES**

The HCPHA is encouraging all agencies and businesses to develop a continuity of operations plan. Methods that have been employed or that will be employed to encourage and support their planning include:

- Presentations
- Templates for and samples of COOPs
- Newspaper articles
- Letters from the Health Director

XI SCHOOL SYSTEM RESPONSE

- **LEADERSHIP AND KEY CONTACTS**

There are ten school facilities in Hertford County.

Public Schools

1. Bearfield Primary
2. Riverside Elementary
3. Ahoskie Elementary
4. Hertford County Middle
5. Hertford County High
6. C.S. Brown Development Center

7. Early High School-RCCC campus

Private Schools

1. Ahoskie Christian School
2. Hertford County Multi-Purpose Juvenile School
3. Ridgecroft School

Contact information for all schools can be found in Appendix K-School contact information. The Hertford County Public Health Authority will be responsible for contacting all schools as needed during phases 4-6 of a pandemic influenza epidemic.

- **MOU BETWEEN HCPHA AND HCPS (SEE APPENDIX L)**

- **COMMUNICABLE DISEASE REPORTING AND SYNDROMIC SURVEILLANCE**

The HCPS system schools will notify the HCPHA Director of Nursing/Communicable Disease Nurse for consultation and recommendations regarding emergency (and non-emergency) health/communicable disease as needed.

All Hertford County Public Schools will report daily absenteeism and daily total enrollment to the Health Authority as part of a proactive disease surveillance initiative. Routine reports are to be emailed/faxed daily to the Health Authority. The Public Health Authority shall be notified immediately regarding any outstanding variances in absenteeism and/or known outbreaks of illness "viruses" within a particular class and or school.



The **Health Authority** will enter the absenteeism reports into a tracking system to plot patterns and identify trends. This information will be analyzed as part of an ongoing surveillance initiative to detect and contain communicable diseases in a timely manner. An absenteeism rate of 10% or higher initiates a call from HCPHA to the school to determine if there is a reasonable explanation. If there is an absenteeism rate of 10% or higher in three or more of the facilities, NC Detect is accessed to monitor for increases in syndromic activity and further investigations initiated if needed. Summaries will be presented at the School Health Advisory Committee meetings.

○ **HCPS PUBLIC HEALTH EMERGENCY PREPAREDNESS PLANS**

The **Hertford County Public School System** is responsible for developing, maintaining and exercising emergency/disaster preparedness plans for the school system.

The **Hertford County Public School System** is responsible for consulting with the Health Authority's Emergency Preparedness Coordinator during plan development and revisions of emergency preparedness plans related to public health threats.

The **Hertford County Public School System** is responsible for liability issues related to emergencies and disasters.

The **Health Authority** is responsible for providing consultative services related to public health emergency/disaster preparedness planning and exercises upon request.

The **Health Authority** will provide public health related emergency preparedness training for staff upon request.

● **ADDITIONAL HCPS EMERGENCY PLANNING INFORMATION**

Each school facility has the required emergency response plan that is reviewed and revised annually. The HCPS system does not have a specific pandemic influenza planning and response plan but will develop a plan during the FY 08-09 school year. With permission from the HCPS system, their plan, once developed will be shared with the non-public schools to use as guidance to develop their facility specific plans.

● **DISMISSAL OF STUDENTS AND TRIGGERS**

Prolonged and short-term dismissal of students from schools and daycare centers will be a pre-emptive, prevention oriented intervention and will not occur in direct reaction to absenteeism. In order for this social mitigation strategy to be effective, it must be implemented early. The trigger for school dismissals will be in response to initial detection of cases in the state or possibly bordering states resulting in an Executive Order from the Governor pursuant to GS 166A-6 proclaiming that all schools are to be dismissed. Other officials with authority may also choose to exercise it, e.g. school boards, superintendents, Local Health Directors, other local elected officials.



All recommendations will be based on the NC Pan Flu Plan Community Containment Section Appendix I1 and Legal Preparedness Sections L-1 and L-4.

The Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States recommends a three-tiered strategy for planning related to the duration of dismissal of children from schools, childcare programs and institutions of higher learning.

1. Prolonged dismissal up to 12 weeks may be necessary during a severe influenza pandemic (Category 4 and 5).
2. Short-term dismissal up to 4 weeks may be necessary during a less severe pandemic (Category 2 and 3) and
3. No dismissal at all during a mild pandemic (Category 1).

Schools will be instrumental in encouraging parents and students to practice social distancing during pandemic influenza related school dismissals.

All public school facilities report enrollment and absenteeism data to HCPHA on a daily bases. Percentages are calculated by HCPHA.

• **COMMUNICATION**

Between HCPHA and school Administrators/local school Boards

The HCPHA and HCPS system communicate often through the School Health Advisory Council and at other preventive health collaborative meetings. The school nurses communicate with the emergency preparedness coordinator when they see a rise in school absenteeism.

During a public health emergency, the emergency preparedness coordinator is slated to communicate with the school systems as the health director's designee when needed. See the Notification Flow chart/call down tree and Communication Matrix in the HCPHA Bioterrorism and Emerging Health Threats (All Hazards) Plan. Continued communication will most likely occur through emails to one contact person at each school. Urgent communication will also be relayed via telephone.

Media releases will be coordinated through the HCPHA PIO. Template releases are being created in collaboration with the Hertford County School System.

Between School Leaders and Parents/Guardians

The School Systems utilizes reverse 911 to communicate with parents and guardians. Flyers are sent home with children and direct telephone calls are made to parents or guardians when the situation warrants.

The Hertford County Public Health Public Information Officer is responsible for maintaining key message templates for quick access and dissemination to the



community via the schools through the school children. These messages include template letters appropriate for the pandemic flu severity level. All template letters to parents maintained by the HCPHA PIO will be electronically transmitted to the Hertford County School System for them to edit and place on their letterhead. All other health related information will have the HCPHA logo, the NC DPH logo or the CDC logo to ensure parents that the information is official.

• MAINTENANCE OF SCHOOL-BASED SERVICES

School based services that will need to be continued include:

- Child minding
- Nutrition assistance through the school meal program
- Continued education instruction
- Therapy
- Special needs children
- Resource referrals

Currently, the school systems are ultimately responsible for ensuring the continuation of these programs. The community, individuals, employers, social services, emergency management, public health can be partners with the school systems during the planning and implantation phases.

Since the schools will most likely remain open during school dismissal, the staff and facilities may be utilized during the emergency.

• INFECTION CONTROL PRACTICES

Good infection control practices are currently practiced and taught in the schools. The schools disseminate flyers provided by the HCPHA on proper hand washing and respiratory etiquette during cold and flu season. Staff and children with potentially contagious illnesses are encouraged to stay home.

The student handbook provides a fact sheet on Tips for Preventing the Spread of Germs in English and Spanish and a listing of related web sites.

School Health Nurses practice universal precaution techniques and use personal protective equipment if health care related procedures and treatments dictate.

These infection control practices will continue until schools are dismissed, by staff when the school is still operational and upon return of the students.

• SEASONAL INFLUENZA VACCINATION PROGRAM



The HCPS system provides seasonal influenza vaccination for employees through the State Health Plan at two sites in the county. The vaccine clinic is marketed to staff via multiple avenues.

The student handbook provides information about seasonal influenza; symptoms, who is at the greatest risk and flu vaccine information.

XII CHILDCARE FACILITY RESPONSE

• LEADERSHIP AND KEY CONTACTS

There are 20 childcare centers in Hertford County. These childcare centers will be contacted by the Hertford County Partnership for Children (HCPFC) Resource and Referral Manager. The HCPFC will be contacted by HCPHA when needed during a pandemic influenza epidemic. The Region 1 Albemarle Smart Start Partnership Resource and Referral Director will serve as the primary contact for pandemic influenza planning to ensure consistency across the region. See Appendix M for contact information.

• EMERGENCY PLANS

Each childcare center has an emergency response plan that is reviewed and updated annually by the Region 1 Resource and Referral Network.

• DISMISSAL OF STUDENTS AND TRIGGERS

Prolonged and short-term dismissal of students from schools and daycare centers will be a pre-emptive, prevention oriented intervention and will not occur in direct reaction to absenteeism. In order for this social mitigation strategy to be effective, it must be implemented early. The trigger for the dismissal of children from the county's childcare centers will be in response to initial detection of cases in the state or possibly bordering states resulting in an Executive Order from the Governor pursuant to GS 166A-6 (also GS 110-86-3) proclaiming that all childcare centers regulated by the NC Department of Health and Human Services are to be dismissed. Other officials with authority may also choose to exercise it, e.g. school boards, superintendents, Local Health Directors, other local elected officials. All recommendations will be based on the NC Pan Flu Plan Community Containment Section Appendix I1 and Legal Preparedness Sections L-1 and L-4.



The Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States recommends a three-tiered strategy for planning related to the duration of dismissal of children from schools, childcare programs and institutions of higher learning.

1. Prolonged dismissal up to 12 weeks may be necessary during a severe influenza pandemic (Category 4 and 5).
2. Short-term dismissal up to 4 weeks may be necessary during a less severe pandemic (Category 2 and 3) and
3. No dismissal at all during a mild pandemic (Category 1).

Childcare Centers will be instrumental in encouraging parents to practice social distancing during pandemic influenza related childcare center dismissals.

- **COMMUNICATION**

- **Between child care service facilities and HCPHA**

During a public health emergency, the emergency preparedness coordinator is slated to communicate with the Hertford County Partnership for Children (HCPFC) Resource and Referral Manager as the health director's designee when needed. See the Notification Flow chart/call down tree and Communication Matrix in the HCPHA Bioterrorism and Emerging Health Threats (All Hazards) Plan. Continued communication will most likely occur through emails. Urgent communication will also be relayed via telephone.

- **Between leadership, staff and parents/guardians**

The HCPFC staff will notify all childcare service facilities in Hertford County and relay the message from the Health Director. The childcare service facility director/manager will convey pertinent information to parents and guardians through their telephone tree and via flyers provided by the HCPHA.

- **INFECTION CONTROL PRACTICES**

The Albemarle Region 1 Smart Start/Childcare Resource and Referral Network and county level facilities encourage proper hygiene practices on a daily basis which will continue during a pandemic. Staff members sick with symptoms related to contagious diseases are encouraged to stay home. The childcare service agencies are required to have infection control policies and procedures that are in effect and will remain in affect during a mild to severe pandemic. These policies and procedures include respiratory etiquette, handwashing, staff and child exclusion criteria and the use of personal protective equipment.