Version
1/25/2006

Rhode Island
Department of Health

Safe and Healthy Lives in Safe and Healthy Communities

<u>Pandemic Influenza Plan</u>

Lead Agency For ESF-8

Page

I. Executive Summary ---------- 5

II. Incident Command Structure ---------- 12

III. Situation and Assumptions

A. Pandemic Flu ---------- 17
B. Scope ---------- 17
C. Pandemic Phases ---------- 18
D. Current Assumptions ---------- 19

IV. Command, Control, and Management

A. Main Challenges ---------- 21
1. Surveillance ---------- 21
2. Vaccine Management ---------- 21
3. Anti-viral Management ---------- 22
4. Hospital Diversion and Support ---------- 22 &148
5. Mass Fatality Management ---------- 23 &158
6. Special Needs Population ---------- 23 & 68
7. Quarantine/ Isolation ---------- 23 & 67
B. Security ---------- 24
C. Need for Unified Command ---------- 24
D. Central Role of Health ---------- 24

V. ESF – 8

A. General Organization ---------- 25
1. Activation of Incident Command at HEALTH ---------- 25
2. Participation in Unified Command ---------- 25
3. Deputy IC for ESF – 8 ---------- 26
4. PIO/Joint Information Center ---------- 26
5. Organizational Challenges ---------- 26

B. Operations Section---------- 27

1. Operations Chief ---------- 27
2. Surveillance Branch ---------- 27
3. MEDS/SNS Supervisor ---------- 34
4. Pre-hospital Director---------- 36
5. Medical Care Director ---------- 39
6. Mass Fatality Management Branch ---------- 41

C. Planning Section ---------- 42

D. Logistics Section ---------- 45

E. Finance/Administration Section ---------- 48

F. Safety Section ---------- 51

VI. Attachments

A. Concept: A Practical Anti-Viral Stockpile for Rhode Island in Preparation for Pandemic Influenza---------- 53

B. Concept: Pandemic Influenza's Impact on Acute Care Hospitals in Rhode Island ---------- 58

C. Influenza Personal Protective Equipment for First Responders ---------- 64

D. Concept: Use of Quarantine to Control Influenza Outbreaks---------- 67

E. Special Needs Population ---------- 68

F. Pandemic Influenza Public Information Plan ---------- 77

G. ESF 8 ---------- 85

H. Telephone Contact Numbers ---------- 101

I. Abbreviations ---------- 106

J. Web List Links---------- 108

K. Authorities and References ---------- 112

L. Medication Distribution Plan ---------- 113

M. Rhode Island Diversion Plan ---------- 148

N. Fatality Management Plan ---------- 158

O. Projections of Healthcare Utilization and Costs ---------- 172

P. Pandemic Influenza Planning Membership ---------- 188

ESF-8 Pandemic Influenza Plan

Executive Summary

I. Background

Pandemic: A Worldwide Outbreak of Influenza

An influenza pandemic is a *global* epidemic that occurs when a *novel strain* of influenza appears in the human population, causes serious illness, and spreads easily from person to person. Influenza pandemics differ from annual influenza outbreaks. The latter are caused by influenza strains that already circulate among people, whereas pandemics are caused by strains to which the living have not been exposed. Influenza pandemics cause high levels of illness, death, social disruption, and economic loss.

Influenza Pandemics during the 20th Century

During the 20th century, the emergence of novel influenza viruses caused three pandemics:

- 1918-19, "Spanish flu," [A (H1N1)], caused the highest number of known influenza deaths. More than 500,000 people died in the U.S., and up to 50 million people may have died worldwide. Nearly half of those who died were young, healthy adults. The 1918-19 virus appears to have had an avian origin.

- 1957-58, "Asian flu," [A (H2N2)], caused about 70,000 deaths in the U.S. First detected in China in February 1957, the Asian flu had spread to the U.S. by June 1957.

- 1968-69, "Hong Kong flu," [A (H3N2)], caused about 34,000 deaths in the U.S. This virus was first detected in Hong Kong in early 1968 and spread to the U.S. later that year. The 1957-58 and 1968-69 pandemics were caused by viruses containing genes from a human influenza virus and an avian influenza virus.

II. The Next Pandemic

Preparing for the Next Pandemic

Many scientists believe it is only a matter of time until the next influenza pandemic occurs. The severity of the next pandemic cannot be predicted, but modeling

suggests that the impact of a pandemic on the U.S. could be substantial. In the absence of effective control measures (vaccines or anti-virals), a 1918-like pandemic would make about 90,000,000 Americans sick; about 9,900,000 would require hospital care; about 1,900,000 would die.

Influenza pandemics are different from other emergencies for which public health plans and drills:

- Pandemics last much longer than most public health emergencies and may include "waves" of activity separated by three to twelve months.

- Attrition among health-care workers and first responders is high because they cannot avoid exposure. Many become ill. Others must care for sick family members or for children home from school or day care.

- Resources become limited depending on the severity of the pandemic and related disruptions in basic services.

When a novel strain of influenza emerges, 25% to 35% of the population may develop clinical disease. Case fatality may approach three percent (1918). Direct and indirect health costs alone have been estimated to approach $181 billion for a *moderate* pandemic (1957-58 or 1968-69) with no interventions. Governments must respond quickly and forcefully to limit potentially catastrophic consequences.

Currently, a novel strain of avian influenza (A - H5N1) is spreading widely and rapidly in domestic and migratory fowl across Asia and Europe. As of October 2005, this strain had infected 117 humans, causing 63 fatalities. The virus is so widespread that its elimination is not feasible. If it mutates in a way that permits efficient human-to-human transmission, it may cause an influenza pandemic.

Predicting the severity of a pandemic is difficult. In the U.S., for example, the pandemic of 1918 caused about 500,000 deaths, while the pandemic of 1968 caused about 34,000 deaths, even though about 30% of the U.S. population developed illness in both pandemics.

Current influenza pandemic planning is based on the following assumptions:

- 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, 50% will seek outpatient medical care.

- The number of hospitalizations and deaths will depend on the virulence of the pandemic virus. Estimates differ about 10-fold between pandemics of moderate impact (1957-like or 1968-like) and pandemics of severe impact (1918-like). Because the virulence of the influenza virus that causes the next pandemic cannot be predicted, two scenarios are presented based on extrapolation of past pandemic experience.

III. Influenza in Rhode Island: Two Pandemic Models

Today, absent effective vaccine or anti-virals, [1] pandemics of different severity, as understood by the CDC, would have the following impacts in Rhode Island[2] relative to an average annual influenza season:

Table 1: Influenza in Rhode Island – Two Pandemic Models

	Average Flu Season Estimate	Model I *Moderate Severity Flu Pandemic Estimate*	*Severe Flu Pandemic Estimate*
Model:	Average Year	(Like 1957-58, 1967-68)	(Like 1918)
Impacts			
Illnesses:	125,000	250,000	300,000
Outpatient visits:	25,000	100,000	150,000
Hospitalizations:	670	3,027	34,650
ICU Care:	50	425	5,197
Mechanical ventilation:	25	227	2,599
Deaths:	120	731	6,661
Economic impact:		$400 million	Severe

1 - Existing vaccines would be ineffective against novel strains of pandemic flu, and the most effective anti-virals are currently in short supply.
2 - Based on CDC estimates for the United States as a whole.

IV. Planning Assumptions: Pandemic Influenza in Rhode Island

- In a worst-case scenario (Table 1,"Like 1918"), about 300,000 people will become ill in a 6-8 week period. Half will seek medical care, and 11-12 % will require hospitalization. Almost 7,000 will die. A second influenza wave may follow in 3-12 months. Risk groups for severe complications cannot be predicted with certainty, as they vary from one influenza strain to another. The healthcare system will be

overwhelmed. The entire nation will be engaged simultaneously. States will have to address local consequences with local assets.

- A vaccine may not be available in the early stages of a pandemic. It takes 6-9 months or longer to manufacture influenza vaccine, once appropriate virus strains are isolated.

- Four influenza antiviral medications (amantadine, rimantadine, oseltamivir, and zanamivir) are approved in the U.S. for treatment or prevention of influenza. The drugs are not always effective, because influenza strains become resistant to them. For example, the novel strain of avian influenza (A - H5N1) currently sweeping across Asia is resistant to amantadine and rimantadine, and may be developing resistance to oseltamivir

V. Critical Challenges to the Healthcare System

A 1918-like influenza pandemic would present substantial challenges to the entire healthcare system:

- Primary Care: Staff attrition will force closure of primary healthcare practices, smaller practices first, then larger practices, shifting demand for services to hospital emergency departments. This process will disrupt normal patient services, leave most physical primary healthcare assets abandoned, and create great pressures on hospital emergency departments.

- Hospital Care: Hospitals will face overwhelming challenges. Demand for emergency department services will skyrocket. Demand for inpatient beds will exceed supply by multiples of three to five. Hospitals will need to segregate influenza patients from non-influenza patients. "Non-influenza" patients may be incubating influenza at the time of admission. Discharges will be frustrated by a faltering nursing home industry (below). Hospital morgues will overflow; transfer of the deceased to funeral homes will slow.

- Nursing Home Care: Nursing homes will lose staff quickly to illness and family interests, then face in-house outbreaks of influenza among fragile patients. In addition, there will be many of their residents will die. Unequipped with morgues, nursing home staff will have to create temporary holding areas for corpses awaiting transfer to state altercative morgue facilities. Many nursing homes may cease to function for the duration of the emergency, unless control of physical assets and remaining staff is assisted by other entities (e.g. hospitals or the state).

- Home Care Services: Home care services will be critically challenged by staff attrition, leaving thousands of vulnerable clients without services. Some of these clients will rely on the help of family, friends, or neighbors, but others who require skilled nursing services may succumb to chronic illnesses or infection.

VI. The ESF-8 Response

ESF-8 assets managed by the Rhode Island Department of Health (HEALTH) will be used to minimize the morbidity and mortality of an influenza pandemic by preparing the public, slowing transmission of disease, and preserving the functionality of basic infrastructure.

Prepare the Public for an Influenza Pandemic

- Set clear expectations about life in a pandemic: HEALTH will collaborate with its partners in state government, in the mass media, and in community-based organizations throughout Rhode Island to inform the public about the challenges of an influenza epidemic. Clear expectations will be set regarding potential effects on work, education, leisure activities, the availability of goods and services, especially healthcare resources. HEALTH will also use its web site as a repository for information on influenza pandemics and to post announcements and advisories during an actual pandemic emergency.

- Promote personal prevention and home care: HEALTH will collaborate with it partners to promote personal protective measures among members of the public, including, but not limited to, hand washing, the avoidance of crowds, and voluntary isolation of the sick (at home). HEALTH will also inform the public about how to differentiate the symptoms of influenza from the symptoms of other illnesses, how to care for influenza at home, and when to seek healthcare for influenza.

- Promote emergency preparedness: HEALTH recently developed and distributed a booklet entitled "Make a kit; make a plan; stay informed" to help the public prepare for emergencies such as bioterrorism events, fires, floods, and other natural disasters. Because the duration of an influenza pandemic is much longer than the duration of many other public emergencies, HEALTH will be distributing public information material specific to the pandemic flu.

Slow Transmission of Disease

HEALTH will assure the implementation of public health strategies to slow the transmission of disease, thereby spreading the demand for healthcare services over time:

- Close and cancel: All day care services and schools will be closed at the first sign of pandemic influenza in the State. Similarly, large public gatherings (e.g., concerts, sports events) will be cancelled.

- Modify SOPs in healthcare facilities: All healthcare facilities will adopt emergency operating procedures, dividing patient care areas into segregated units for influenza and non-influenza patients, modifying rules for patient and visitor traffic, and providing personal protective equipment for staff and patient use. In addition,

inpatient facilities will discharge all patients who can be supported at home, cancel elective procedures, stand up units for the observation of newly admitted inpatients, and stand up surge capacity beds.

- Promote personal prevention and home care: (See section labeled Prepare the Public for an Influenza Pandemic**).**

- Distribute vaccines rapidly and strategically, as available: Vaccines effective in preventing a circulating strain of pandemic influenza *may* become available in quantity before Rhode Island becomes thoroughly engulfed in disease, during the crisis, or in the "calm" between pandemic waves. The Medical Emergency Distribution System (MEDS) will be initiated at this time to administer vaccine throughout the state.

Preserve the Functionality of Basic Healthcare Infrastructure

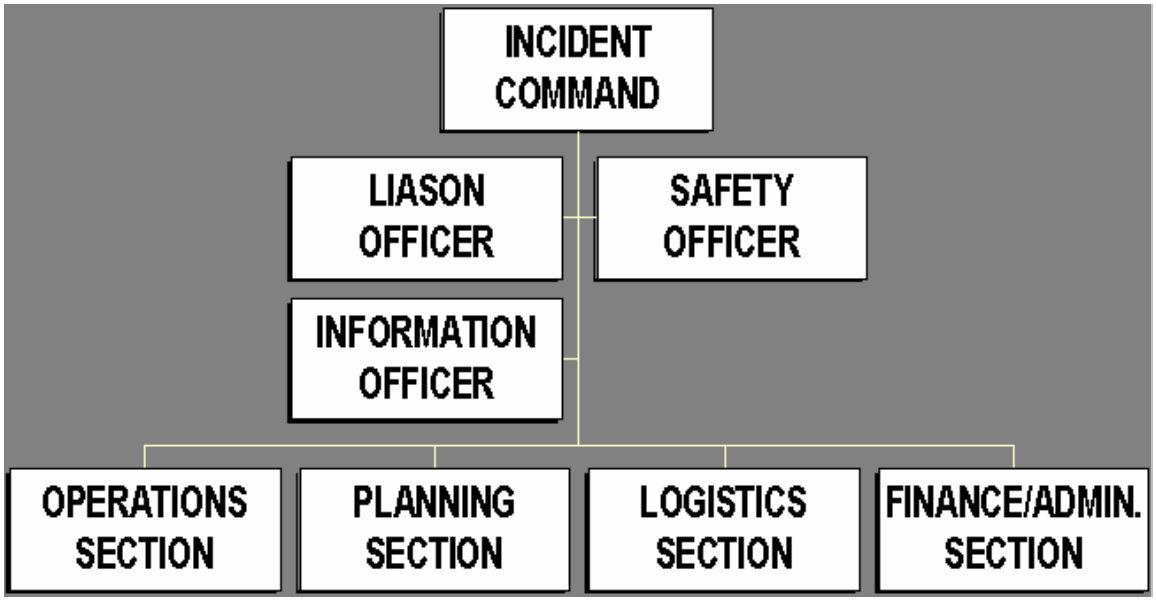
- Coordinate the State's responses: HEALTH will advise the Governor about the timing of a "state of emergency," request the issuance of previously prepared emergency orders to protect the public's health, and deploy ESF-8 assets strategically.
- Preserve essential healthcare assets: HEALTH will take several actions to protect essential healthcare assets (e.g. the primary healthcare system, hospitals, nursing homes, and home health services, for example) and related first-response assets (police, fire, and emergency medical services, for example). Vaccines and anti-virals, as available, will be administered first to workers in the healthcare system and first-response systems, then to others in priority order, to preserve the functionality of basic healthcare infrastructure. (Anti-virals, currently in very short supply, will be used for the treatment of workers as they become ill, not for prophylaxis.) Universal/standard precautions will be observed in all parts of the healthcare system to minimize disease transmission from patients to staff. During a pandemic, HEALTH will relax rules and regulations, allowing health agencies to cope with staff loss by modifying standards of care.

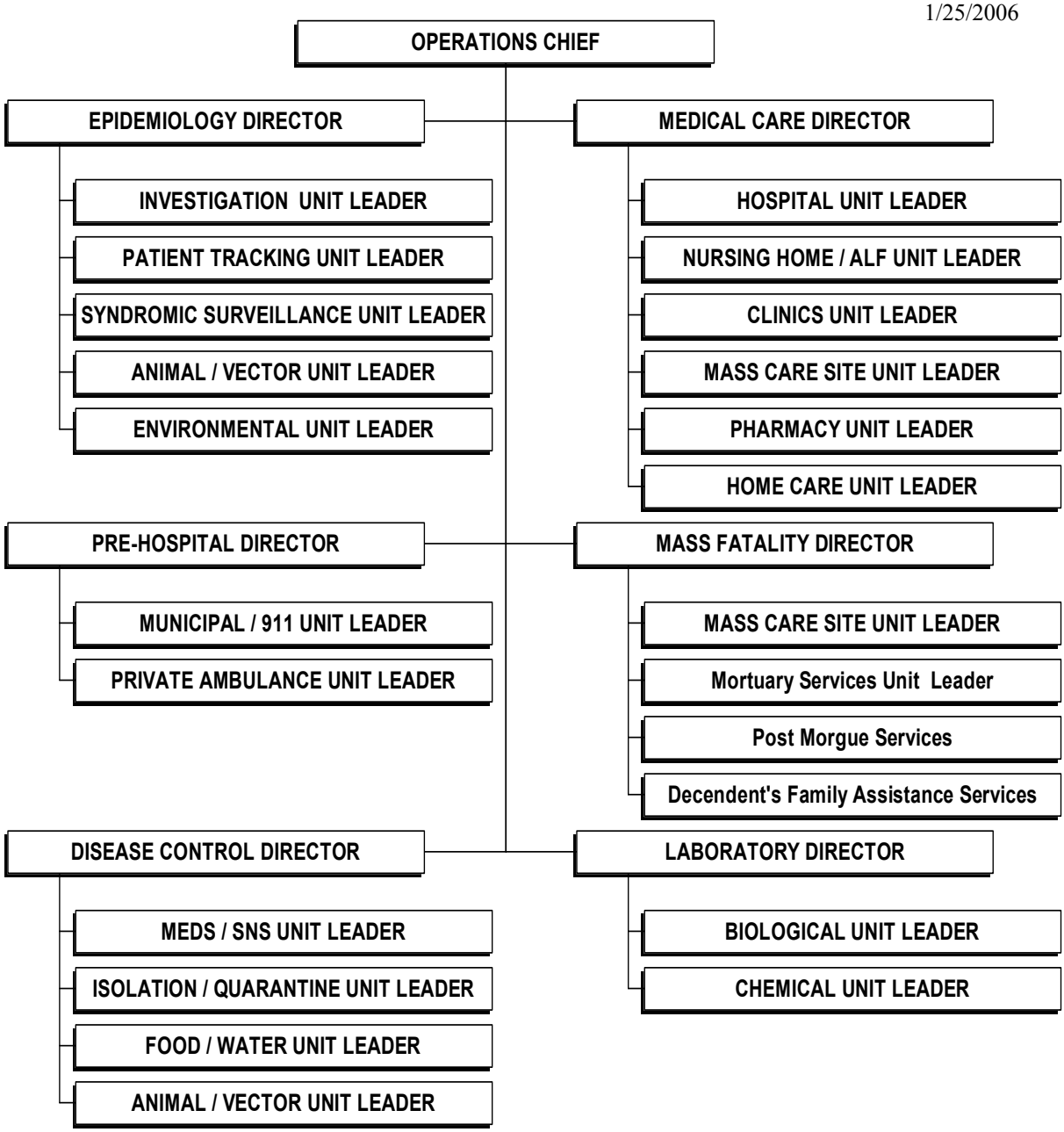
- Reorganize the healthcare system: HEALTH has divided the state into ten healthcare service regions and has asked acute care hospitals to plan the organization of all healthcare assets within each region. During a pandemic, the hospitals will organize and deploy all healthcare assets within assigned regions, to maximize functionality in the face of staff attrition and overwhelming demand for healthcare services of all kinds.

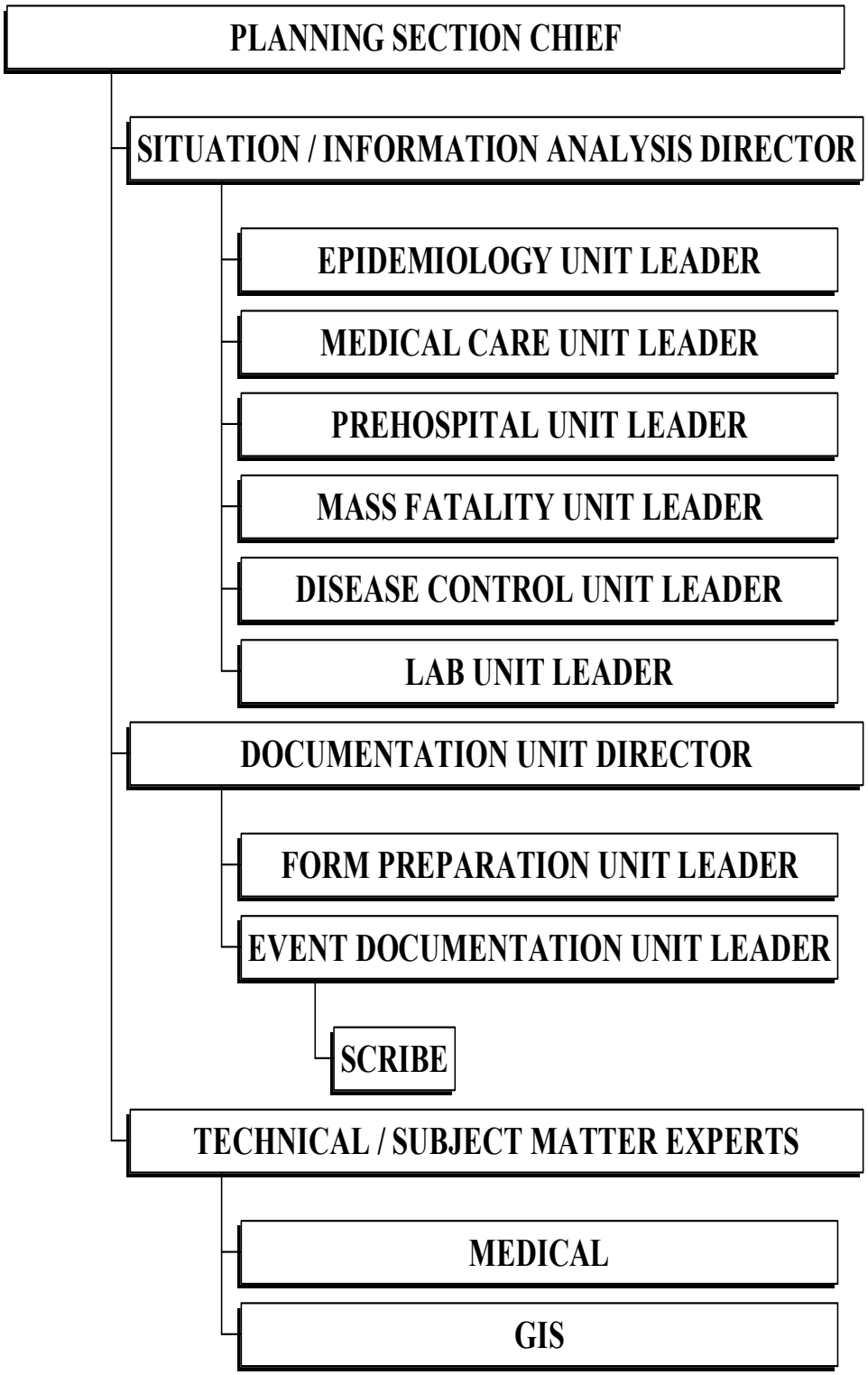
Table 2: Healthcare Service Regions
Proposed Hospital Assignments

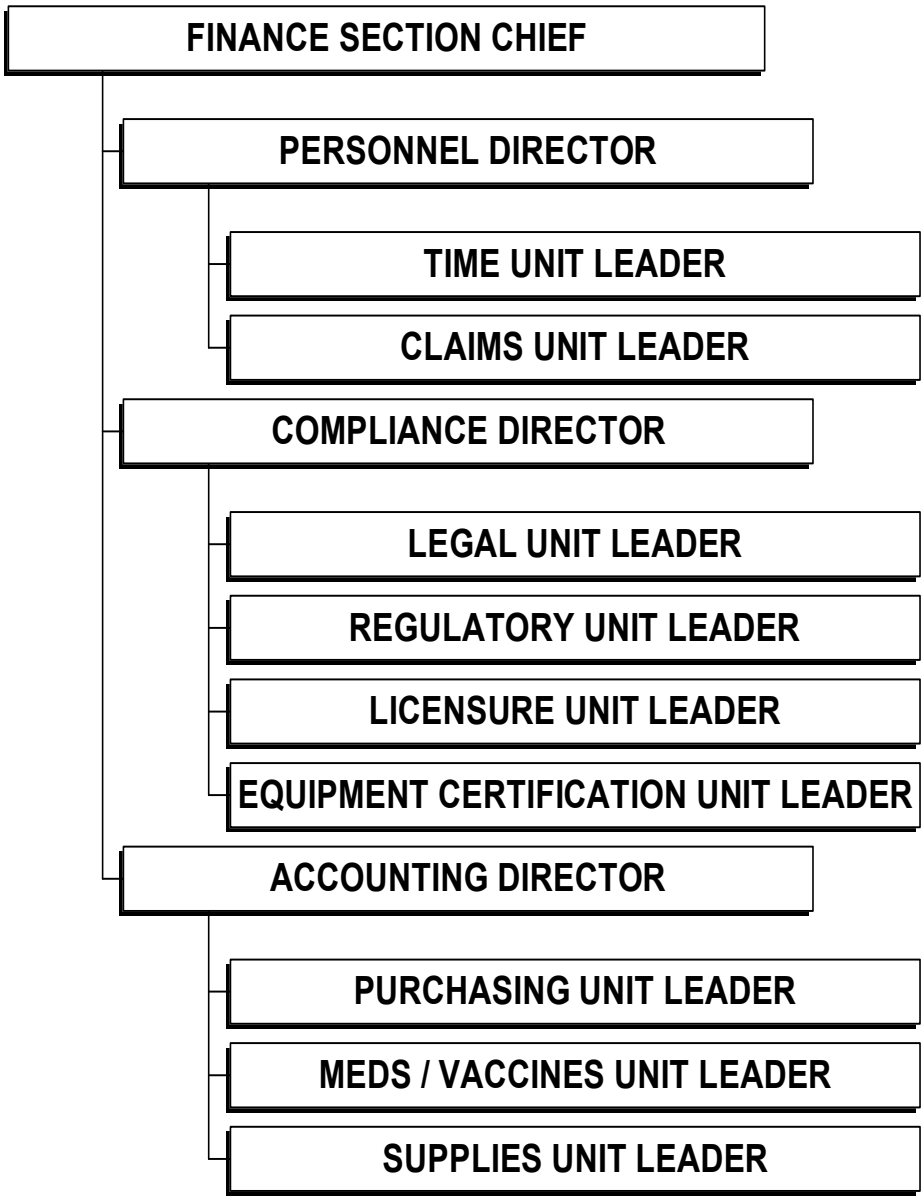
Healthcare Service Regions (from North to South)	Hospital
Burrillville, North Smithfield, Woonsocket	Landmark
Cumberland, Lincoln, Central Falls, Pawtucket	Memorial
Glocester, Smithfield, Johnston, North Providence	Fatima
Foster, Scituate, Cranston	Roger Williams
Providence	Rhode Island
East Providence, Barrington, Warren, Bristol	Miriam
Jamestown, Portsmouth, Middletown, Newport, Tiverton, Little Compton	Newport
Coventry, West Warwick, Warwick, West Greenwich, East Greenwich	Kent
Exeter, North Kingstown, Richmond, South Kingstown, Narragansett	South County
Hopkinton, Westerly, Charlestown, New Shoreham	Westerly

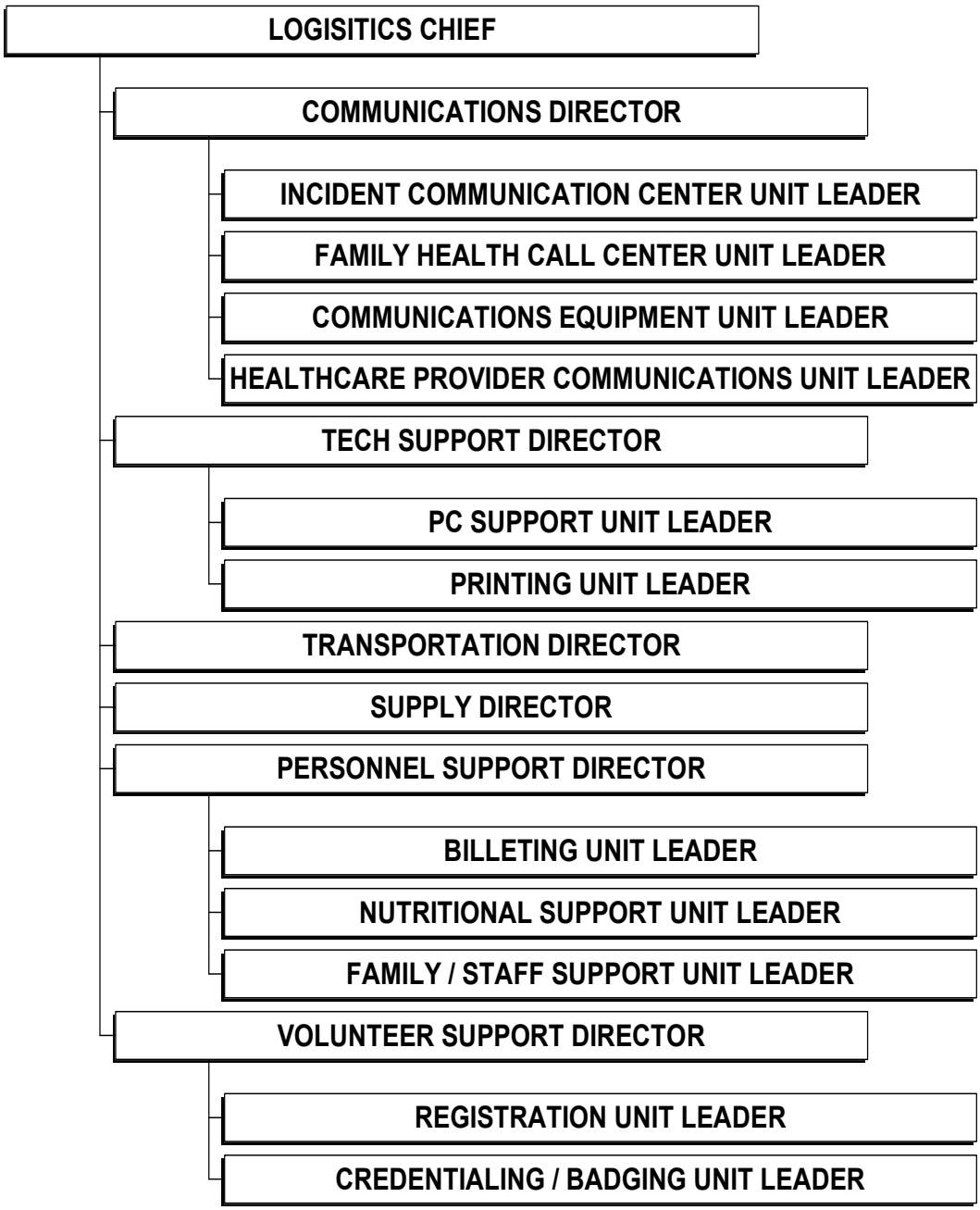
II. Incident Command Structure for Pandemic Flu




OPERATIONS CHIEF
EPIDEMIOLOGY DIRECTOR
INVESTIGATION UNIT LEADER
PATIENT TRACKING UNIT LEADER
SYNDROMIC SURVEILLANCE UNIT LEADER
ANIMAL / VECTOR UNIT LEADER
ENVIRONMENTAL UNIT LEADER
MEDICAL CARE DIRECTOR
HOSPITAL UNIT LEADER
NURSING HOME / ALF UNIT LEADER
CLINICS UNIT LEADER
MASS CARE SITE UNIT LEADER
PHARMACY UNIT LEADER
HOME CARE UNIT LEADER
PRE-HOSPITAL DIRECTOR
MUNICIPAL / 911 UNIT LEADER
PRIVATE AMBULANCE UNIT LEADER
MASS FATALITY DIRECTOR
MASS CARE SITE UNIT LEADER
Mortuary Services Unit Leader
Post Morgue Services
Decendent's Family Assistance Services
DISEASE CONTROL DIRECTOR
MEDS / SNS UNIT LEADER
ISOLATION / QUARANTINE UNIT LEADER
FOOD / WATER UNIT LEADER
ANIMAL / VECTOR UNIT LEADER
LABORATORY DIRECTOR
BIOLOGICAL UNIT LEADER
CHEMICAL UNIT LEADER


PLANNING SECTION CHIEF
SITUATION / INFORMATION ANALYSIS DIRECTOR
EPIDEMIOLOGY UNIT LEADER
MEDICAL CARE UNIT LEADER
PREHOSPITAL UNIT LEADER
MASS FATALITY UNIT LEADER
DISEASE CONTROL UNIT LEADER
LAB UNIT LEADER
DOCUMENTATION UNIT DIRECTOR
FORM PREPARATION UNIT LEADER
EVENT DOCUMENTATION UNIT LEADER
SCRIBE
TECHNICAL / SUBJECT MATTER EXPERTS
MEDICAL
GIS


FINANCE SECTION CHIEF
PERSONNEL DIRECTOR
TIME UNIT LEADER
CLAIMS UNIT LEADER
COMPLIANCE DIRECTOR
LEGAL UNIT LEADER
REGULATORY UNIT LEADER
LICENSURE UNIT LEADER
EQUIPMENT CERTIFICATION UNIT LEADER
ACCOUNTING DIRECTOR
PURCHASING UNIT LEADER
MEDS / VACCINES UNIT LEADER
SUPPLIES UNIT LEADER


LOGISITICS CHIEF
COMMUNICATIONS DIRECTOR
INCIDENT COMMUNICATION CENTER UNIT LEADER
FAMILY HEALTH CALL CENTER UNIT LEADER
COMMUNICATIONS EQUIPMENT UNIT LEADER
HEALTHCARE PROVIDER COMMUNICATIONS UNIT LEADER
TECH SUPPORT DIRECTOR
PC SUPPORT UNIT LEADER
PRINTING UNIT LEADER
TRANSPORTATION DIRECTOR
SUPPLY DIRECTOR
PERSONNEL SUPPORT DIRECTOR
BILLETING UNIT LEADER
NUTRITIONAL SUPPORT UNIT LEADER
FAMILY / STAFF SUPPORT UNIT LEADER
VOLUNTEER SUPPORT DIRECTOR
REGISTRATION UNIT LEADER
CREDENTIALING / BADGING UNIT LEADER

III. Situation and Assumptions

A. Pandemic Flu

The Centers for Disease Control and Prevention (CDC) defines an influenza pandemic as:

"...a global outbreak of disease that occurs when a new influenza A virus appears or 'emerges' in the human population, causes serious illness, and then spreads easily from person to person worldwide. Pandemics are different from seasonal outbreaks or 'epidemics' of influenza. Seasonal outbreaks are caused by subtypes of influenza viruses that are already in existence among people, whereas pandemic outbreaks are caused by new subtypes or by subtypes that have never circulated among people or that have not circulated among people for a long time."

B. Scope

Influenza pandemics are worldwide outbreaks of great significance, causing substantial morbidity, mortality, and associated costs. The 20th century witnessed three influenza pandemics of note, the "Spanish flu" of 1918-1919, the "Asian flu" of 1957-1958, and the "Hong Kong flu" of 1968-69. In excess of 600,000 residents of the United States died as a result of these pandemics (500,000 in 1918-1919, 70,000 in 1957-1958, and 34,000 in 1957-1958). Today, absent effective vaccine or anti-virals,[1] 'medium-level' and 'worst-case' pandemics, as envisioned by the CDC, would have the following impacts in Rhode Island[2] relative to an average annual influenza season:

Impacts	*Average Flu Season Estimate*[3]	*Moderate Severity Flu Pandemic Estimate*	*Severe Flu Pandemic Estimate*[4]
Illnesses:	125,000	250,000	300,000
Outpatient visits:	25,000	100,000	150,000
Hospitalizations:	670	3,027	34,650
ICU Care:	50	425	5197
Mechanical ventilation:	25	227	2,599
Deaths:	120	731	6,661
Economic impact:		$400 million	Severe

1 - It is likely that existing vaccine would not be very effective against novel strains of pandemic flu, and that anti-virals would be in short supply.

2 - Based on CDC estimates for the United States as a whole.

3 - 5 – 20% of all people get the influenza during an average influenza season.

4 - Based on 5% overall mortality, as experienced in the 1918 influenza pandemic.

Although the death rate from influenza pandemics declined in the United States over the course of the twentieth century, the potential for higher death rates is quite real. Recent outbreaks of avian influenza (Influenza A, H5N1) in Southeast Asia resulted in case fatality rates of 33-70 percent among people infected directly from birds. Although these strains are not easily transmitted from human to human, the probability that they may obtain this capability through genetic recombination in the future is high.

C. Pandemic Phases

The World Health Organization (WHO) has defined phases of a pandemic to assist with planning and response activities. For purposes of consistency, comparability and coordination of the national, state and local response, identification and declaration of the following phases will be done at the national level.

WHO Pandemic Phase*	Definition
Interpandemic Period Phase 1 and 2	Phase 1: No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low.
	Phase 2: No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.
Pandemic Alert Period Phase 3, 4 and 5	Phase 3: Human infection(s) with a new subtype but no human-to-human spread or at most rare instances of spread to a close contact.
	Phase 4: Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.
	Phase 5: Larger cluster(s) but human-to-human spread is still localized, suggesting that the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible (substantial pandemic risk).

WHO Pandemic Phase*	Definition
Pandemic Period Phase 6	Increased and sustained transmission in the general population
Post-pandemic Period	Return to the Interpandemic period (Phase 1)

*Recognizing that at any pandemic phase, national situations will differ based on whether a country is affected or not affected by the novel influenza subtype, the WHO Secretariat recommends "national subdivisions" of phases based on whether a country is experiencing disease or has extensive trade and travel links with an affected country. National subdivisions of phases will be designated by national authorities. In the United States, pandemic phases will be defined based on the global phase and determined by the Secretary of Health and Human Services. During the pandemic phase, additional subdivisions may be defined based on the extent of disease. In actual practice, the distinction between the various phases of pandemic influenza may be blurred or occur in a matter of hours, again underscoring the need for flexibility.

D. Current Assumptions

- The pandemic will occur as at least two waves of influenza activity.
  - Each wave will last about two months.
  - The second wave may occur three to 12 months after the end of the first wave.
- During each wave, as much as 20 % of the population may become infected. Healthcare workers and first responders will become infected at about the same rate as the rest of the population.
- Hospitals will be overwhelmed. Space, staff, and equipment capacity will be exceeded in the first one to three weeks of sustained influenza activity.
  - A substantial proportion of the State's 35,000 full-time and part-time hospital staff may not report for duty because of illness, the need to care for family members, or refusal to work.
  - Hospital staffing needs will drain all "excess" healthcare personnel supply in the State, frustrating the establishment of separate "influenza hospitals."
  - The capacity of normal inpatient discharge destinations, such as step-down units, nursing homes, and viable home-care settings will quickly become overwhelmed, delaying the discharge of convalescents.

- If any influenza vaccine is available at the time of the pandemic, it will be used, whether or not it has a good "fit" to the virus causing the epidemic, because it may have some protective effect, and because the public will demand it.

    - The vaccine should be allocated strategically, to minimize disease burden.

    - The vaccine should be administered quickly, to maximize preventive effect.

- Oseltamivir (Tamiflu), a key anti-viral for treatment of influenza, is scarce in Rhode Island and the United States, and will remain so for several years.

    - Rhode Island will receive 3,500-7,000 doses of oseltamivir from the federal government during the Pandemic Phase (based on mid-2005 estimates).

    - Older anti-virals (amantadine and rimantadine) are available but ineffective against avian influenza A (H5N1), a likely cause of the next influenza pandemic.

    - See Attachment B: Concept: A Practical Anti-Viral Stockpile for Rhode Island in Preparation for Pandemic Influenza

- The case fatality rate may be as high as two to three percent (mirroring the actual U.S. experience in 1918, year of a great influenza pandemic).* In Rhode Island, an estimated 7,000 people would die in a six to eight-week period.
    - Funeral businesses will be unable to export the deceased from homes and healthcare institutions as fast as deaths occur, requiring the organization of state-run, regional morgues to hold the deceased until appropriate arrangements may be made for certification of death and final disposition. (See page 154, Fatality Management Plan)

    - The Office of Vital Records will be unable to certify deaths as quickly as they occur, requiring close coordination with morgue and funeral activities.

- Rhode Island will need to address the influenza pandemic using existing in-state resources, with the exceptions of vaccine and anti-viral re-supply, which are controlled by the federal government.

- Staff shortages due to illness and death will disrupt essential services, including emergency and medical services, food distribution, transportation, and government.

*Were the 1918 virus to circulate again, the death rate would be about the same, because modern treatment and life support assets would be neutralized by overwhelming numbers of seriously ill people.

IV. Command, Control, and Management

A. Main Challenges for HEALTH as the Lead of ESF 8

Surveillance

Initially, the surveillance system will work well. State officials will know approximately when the pandemic reaches the state, its penetration (the approximate proportion of all people who develop clinical cases), and its seriousness (the approximate proportion of cases requiring hospitalization and the approximate proportion of cases resulting in death). Then surveillance will be disrupted by the loss of reporters from the community and loss of staff at the Rhode Island Department of Health (HEALTH). For a time, HEALTH will be able to replace staff lost to illness, but it is possible that at some point Health may be reduced to abbreviated surveillance with a skeleton staff.

Response: Build greater redundancy into the surveillance system.

Vaccine Management

Under ideal conditions, abundant stocks of effective vaccine and vaccination supplies would be available to HEALTH prior to epidemic conditions in the state, allowing rapid deployment of vaccination sites in every municipality, and resulting in close to universal coverage. There is the possibility that there will be no vaccine, and it is likely that the following conditions will prevail, resulting in several potential challenges:

Condition	Potential Challenges
1. Vaccine arrives under epidemic conditions.	• Vaccination personnel succumb to the flu. • Vaccination personnel refuse to serve. • Crowded conditions at vaccination sites facilitate disease spread. • Panic/chaos at clinic sites **Response**: Review and revise Medical Emergency Distribution System (MEDS), increasing central control and developing a "reserve corps" of medication distribution teams to fill gaps. Create just in time training for administration of vaccine.
2. Vaccine will cover one-third or less of the total population.	• Vaccine arrives in multiple partial shipments • Public anxiety intensifies. • Crowds at vaccination sites become unruly. • "Vaccination negotiations" sap leadership resources. **Response**: Intensive public education, beginning with general hand washing and preventative measures, expectations about vaccine availability and allocation in the Inter-Pandemic Phase

and building in specifics about allocation priorities during the Interpandemic Period. In addition, assure appropriate decentralization of vaccine distribution and security at all public vaccination sites. (See Attachment D: Pandemic Influenza Public Information Plan)

3. Vaccine is partly effective.

- Public anxiety intensifies.
- Public refuses vaccination, obviating partial effectiveness.

Response: Intensive public education, beginning with general expectations about vaccine effectiveness and use in the Inter-Pandemic Phase and building in specifics of vaccine design, effectiveness, and use during the Interpandemic Period.

Anti-viral Management

The main challenge of anti-viral management is insufficient supply. The state may receive a small shipment of anti-virals from the federal government during the first pandemic wave, but for the most part we will have to manage with the supply of anti-virals presently on hand.

Response:

Inter-Pandemic Phase: Build a State oseltamivir stockpile to increase supply during waves of pandemic influenza activity and to assure its optimal strategic use during a pandemic.
Pandemic Phase: Concentrate anti-virals at acute-care hospitals for **treatment**. Stockpiled anti-virals will be reserved for treating essential personnel to ensure continuation of state operations. (See attachment A: Anti-viral Stockpile Concept)

Hospital Diversion and Support

Patient transport will quickly become log-jammed, as hospitals fill to capacity with seriously ill people. Simultaneously, hospitals will lose staff to illness, family illness, death, and refusal to work. Hospitals will have insufficient equipment (especially respirators), to treat all patients with influenza-related acute respiratory distress syndrome (ARDS) or pneumonia. The deaths of inpatients will tax, and then exceed, the fixed capacity of hospital morgues and the reduced capacity of funeral homes to export the deceased. The capacity of normal inpatient discharge destinations, such as step-down units, nursing homes, and viable home-care settings will quickly become overwhelmed, delaying the discharge of convalescents.

Response:

Inter-Pandemic Phase: Assure that well-specified hospital emergency plans to address pandemic influenza are in place and drilled.

(Emergency plans must address operational issues caused by dramatically reduced staffing.)
Pandemic Phase: Conserve hospital assets by canceling elective procedures, discharging all patients whose treatment may be sustained at home, and reorganizing the hospital to cope with the surge of influenza and pneumonia patients. (See Attachment C: Hospital Surge Concept.)
Develop regulatory changes to support the Hospital Surge Concept.
Develop temporary morgue overflows at every acute-care hospital in the state using rented refrigerated trailers.
Any Phase: Assure that hospital personnel and emergency transport personnel receive influenza vaccine as soon as possible.

Mass Fatality Management

Assuming two pandemic waves of six weeks each and a five percent crude annual all-causes death rate (similar to 1918), about 2,220 deaths per week per wave would occur in Rhode Island (This is more than 10 times the usual rate of about 200 deaths per week). Funeral businesses in the state cannot meet this demand even if they were to remain fully operational, and they will lose staff to illness, family illness, death, and refusal to work. The state does not have its own D-MORT Team, and cannot count on help from out of state to handle its deceased. The capacity of all morgues in the state will be exceeded in weeks one or two of the initial wave of pandemic influenza activity. The Office of Vital Records will be unable to certify deaths as quickly as they occur, requiring detailed documentation and close coordination with morgue and funeral activities.

Response:

- Develop temporary morgue overflows at every acute-care hospital in the state, using rented refrigerated trailers, and longer-term storage facilities at regionally selected ice rinks capable of maintaining the deceased at appropriate temperatures for several months.

- Consider temporary regulatory changes that allow different processes for pronouncing death.(N.B.: Pandemic waves will most likely occur in the late fall and winter, when long-term maintenance of low temperatures is practical.}

- Train HEALTH staff to augment Office of Vital Records staff during pandemic waves and thereafter, as required, to return the Office to normal operations.

Special Populations

Certain groups of people are more vulnerable than others to infectious illness, to disruption in regular services, and to loss of work or business income. In pandemic times, these groups bear a disproportionate burden of illness and hardship unless government plans ahead to compensate for vulnerabilities during an influenza crisis and for damages in its aftermath.

Response: (See Attachment E: Special Populations)

Quarantine

Slowing the transmission of the disease is a major goal in controlling an outbreak of pandemic influenza, yet quarantine has limited value.

Response (See Attachment D: Concept: Use of Quarantine to Control Influenza Outbreaks.)

B. Security

Security for personnel and medications must be considered with the large volume of people seeking treatment and help.

Response:

Hospitals, vaccine distribution centers, clinics, etc. will need to work with private security, local and/or State Police to develop a security plan to provide safe and secure environments.

C. Need for Unified Command

The scope of societal disruption resulting from an influenza pandemic will require unified command. HEALTH will play a central role in the emergency, but not an exclusive one, and will need the assistance of other ESF-8 members and other ESFs to assure the proper execution of HEALTH's responsibilities.

D. Central Role of HEALTH

Under Unified Command, HEALTH will have a central role in a pandemic influenza emergency. HEALTH is clearly charged with issues related to:

- Disease surveillance
- Prevention and control of disease outbreaks
- Emergency patient transport
- Monitoring and oversight of HEALTH facility operations
- Rapid distribution of medications and vaccines
- Public and professional information related to disease outbreaks
- Mass fatality management

However, a statewide emergency of this magnitude will require very significant responses from:

⇒ **ESF- 5:** **Information and planning** (because of the duration of the emergency)

⇒ **ESF-13:** **Security and law enforcement** (because of the general disruption of society that will occur with a potential of 200,000 very seriously ill people and an estimated 7,000 potential deaths per pandemic wave)

⇒ **ESF-14:** **Military support** (because the National Guard in residence – especially military police and civil affairs units – may be needed to support security and law enforcement and also to keep essential government services running)

⇒ **ESF-15:** **Behavioral HEALTH Services** (because of the personal and societal trauma caused by thousands of illnesses and deaths in a short period of time)

⇒ **ESF-17:** **Volunteers and Donations** (because many additional hands may be necessary to support under-staffed healthcare facilities, to serve homebound, and to assure proper access to food and other essential materials throughout the state)

… and other ESFs as emergencies sparked by loss of essential personnel develop.

V. ESF – 8: HEALTH

A. General Organization

1. Activation of Incident Command at Health

a. Health will set up the command and general staff of incident command once human to human transmission and spread is confirmed by WHO any where in the world.
b. Additional levels of the incident command will be initiated as warranted by surveillance information.

2. Participation in Unified Command

An emergency of the magnitude of pandemic influenza will require a unified command structure under the aegis of the Rhode Island Emergency Management Agency (RIEMA). Unified command (UC) will coordinate activities of ESF-5, 8, 13, 14, 15, 17 through several separate pandemic waves during the Pandemic Phase. UC can be de-activated between pandemic waves, assuming the satisfactory recovery of essential government, emergency, and social services in

the state. Because of ESF-8's essential role in the control of pandemic influenza, HEALTH will deploy a team of personnel to the UC in 12-hour shifts.

3. **Deputy IC for ESF – 8**

All ESF-8 personnel will serve under a Deputy Incident Commander based at the Health Department (3 Capitol Hill). The role of Deputy Incident Commander will be filled by upper-management HEALTH staff to cover 24/7, with back-up.

4. **PIO/Joint Information Center (JIC)** See Attachment D: Pandemic Influenza Public Information Plan

5. **Organizational Challenges for ESF – 8**

Casualties

Because of the nature of the emergency, HEALTH can expect to lose at least half of its personnel. This can be attributed to illness (~ 20 %), family illness (~ 20 % or more), and refusal to report to work (~ 10 %; this estimate is based on assumptions of high morale and low exposure work). For this reason, all essential ESF-8 functions must develop considerable depth in trained staff.

Coordination

Because of the sheer scope of ESF-8 operations during a pandemic influenza emergency, each Section Chief will need to be sure job action sheets are being followed and completed to avoid inefficiencies and dysfunction.

Availability of National Guard Troops

Because of substantial deployments of Rhode Island National Guard troops to Iraq and other destinations world-wide, the in-state availability of troops is at an all-time low.

B. Operations Section

1. Operations Chief

- Manages all incident tactical activities and implements the Incident Action Plan (IAP)
- Leadership role with knowledge/expertise in the processes associated with the implementation of the response to the particular incident

Operations Section

2. Surveillance Branch

Organization: See page 13

		Suggested Staffing Needs/24 hrs
• Epidemiology Director:		3 FTE
• Staffing	Investigation Unit Leader	3 FTE
	Patient Tracking UL	3 FTE
	Syndromic Surveillance UL	3 FTE
	Animal/Vector UL	3 FTE
	Environmental UL	3 FTE
• Disease Control Director		3 FTE
• Staffing	MEDS/SNS UL	See pg. 35
	Isolation/Quarantine UL	3 FTE
	Food/Water UL	3 FTE
	Animal/Vector UL	3 FTE
• Medical Care Director		See pg.40
• Laboratory Director		3 FTE
• N. Division Task Forces (2)	Epi, security/driver, logistics	9 FTE
• S. Division Task Forces (2)	Epi, security/driver, logistics	9 FTE
• E. Bay Task Forces (1)	Epi, security/driver, logistics	9 FTE

- Shifts: 12 hour shifts and normal working hours with weekend coverage if necessary
- Replacements:
  - Epidemiologists - Div Disease Prevention and Control
  - Registered Nurses - Div HEALTH Services Regulation
  - Clerical Staff - HEALTH
- Training Needs: Replacements will receive just-in-time training.

Actions by Pandemic Phase

Current Routine Activities

RI currently operates a multifaceted and robust system of annual influenza surveillance. It permits HEALTH officials to track the magnitude, extent and characteristics of the annual influenza season. Information from this system is made public by posting summary reports weekly on HEALTH's website and is also contributed to CDC's national influenza surveillance efforts. These are the current operations:

Influenza Sentinel Provider Surveillance System: Currently, 20 Rhode Island sentinel physician providers are participating in the HEALTH/CDC passive surveillance system. The system combines both laboratory testing (see below) and the weekly reporting of influenza-like illnesses (ILI) cases (by age group) as a proportion (percentage) of all patients seen in their respective practices. This data is submitted by the providers to CDC weekly (via internet or fax) and can be visualized via a secure data site by epidemiologists. Sentinel providers report 12 months per year. Sentinels are also responsible for routine submission of swabs for influenza virus indentification and culture testing to the State Laboratory.

- Influenza Rapid Testing Results: Laboratories throughout the state conduct rapid tests and send faxed positive results on a voluntary basis to the Office of Communicable Disease (OCD) for tabulation.

Institutional Clusters and Outbreaks: Institutional clusters and outbreaks are mandatory reportable events. An institutional cluster is defined as three (3) or more cases of laboratory-confirmed influenza-like illnesses in a long-term care facility (LTCF), school or other congregate environment.

Influenza Activity as reported by State Epidemiologists: On a weekly basis, the state Epidemiologist reports Rhode Island influenza activity level to CDC. The activity level is a composite of geographic spread and level of ILI as reported by sentinels combined with laboratory positive results and institutional outbreak reports. The following algorithm is utilized:

Activity Level	ILI Activity*/Outbreaks		Laboratory data
No activity	Low	**and**	No lab confirmed cases†
Sporadic	Not increased	**and**	Isolated lab-confirmed cases
	OR		
Local	Not increased	**and**	Lab confirmed outbreak in one institution‡
	Increased ILI in 1 region**; ILI activity in other regions is not increased	**and**	Recent (within the past 3 weeks) lab evidence of influenza in region with increased ILI
	OR		
	2 or more institutional outbreaks (ILI or lab confirmed) in 1 region; ILI activity in other regions is not increased	**and**	Recent (within the past 3 weeks) lab evidence of influenza in region with the outbreaks; virus activity is no greater than sporadic in other regions
Regional (doesn't apply to states with ≤4 regions)	Increased ILI in ≥2 but less than half of the regions	**and**	Recent (within the past 3 weeks) lab confirmed influenza in the affected regions
	OR		
	Institutional outbreaks (ILI or lab confirmed) in ≥2 and less than half of the regions	**and**	Recent (within the past 3 weeks) lab confirmed influenza in the affected regions
Widespread	Increased ILI and/or institutional outbreaks (ILI or lab confirmed) in at least half of the regions	**and**	Recent (within the past 3 weeks) lab confirmed influenza in the state.

* ILI activity can be assessed using a variety of data sources including sentinel providers, school/workplace absenteeism, and other syndromic surveillance systems that monitor influenza-like illness.

† Lab confirmed case = case confirmed by rapid diagnostic test, antigen detection, culture, or PCR. Care should be given when relying on results of point of care rapid diagnostic test kits during times when influenza is not circulating widely. The sensitivity and specificity of these tests vary and the predicative value positive may be low outside the time of peak influenza activity. Therefore, a state may wish to obtain laboratory confirmation of influenza by testing methods other than point of care rapid tests for reporting the first laboratory confirmed case of influenza of the season.

‡ Institution includes nursing home, hospital, prison, school, etc.

**Region: population under surveillance in a defined geographical subdivision of a state. A region could be comprised of 1 or more counties and would be based on each state's specific circumstances. Depending on the size of the state, the number of regions could range from 2 to approximately 12. The definition of regions would be left to the state but existing state HEALTH districts could be used in many states. Allowing states to define regions would avoid somewhat arbitrary county lines and allow states to make divisions that make sense based on geographic population clusters. Focusing on regions larger than counties would also improve the likelihood that data needed for estimating activity would be available.

Pneumonia and Influenza Mortality: The city of Providence is included in the 122 cities Pneumonia and Influenza (P&I) mortality reporting system. These data are reported weekly by the Office of Vital Statistics and published in the Morbidity and Mortality Weekly Report (MMWR) published by CDC. Additionally, influenza-related pediatric death is now nationally notifiable and is reportable in RI on a voluntary basis (regulations to mandate such reporting are in process).

Laboratory Surveillance for Influenza A: The HEALTH Laboratory has capacity to type and subtype the common circulating strain of influenza A, as well as potential strains of pandemic influenza.

Syndromic Surveillance: A request for proposals for syndromic surveillance to include ILI is in progress and will be implimented in a pilot hospital in early 2006. Dramatic changes in ILI through syndromic surveillance systems already exist in New York City and Massachusetts. That information is reported through a secure data network called EpiX, and epidemiologists in RI can view these reports. Rhode Island has access through secure data network connectivity to the National "Biosense" monitoring system, which allows observation of ILI outpatient visits to Department of Defense (DOD) operated facilities. Also through similar connectivity, RI monitors the National Retail Data Monitoring System (NRDSS) results to assess trends in sales of syndrome-specific, over-the-counter medication.

Interpandemic Period
Phase 1 and 2

All of the activities described above will continue. The goal will be to detect the arrival and sustained person-to-person transmission of the novel virus in RI. In addition, the OCD and State Virology Lab will implement the following:

- Alert the medical community: Clinical providers will be notified via fax of the interpandemic period, phase 2 and will be asked to screen all patients with ILI for any recent travel history or exposure to ill persons with a recent travel history, especially travel to places where the novel virus has already been isolated. Clinical providers will be asked to culture all non-seasonal cases of suspected influenza, focusing on travelers and those with occupational exposure to poultry.

- Enhanced passive surveillance: Reporting of pediatric and adult mortality and unusual manifestations of morbidity or mortality reports related to ILI will be enhanced. These include severe respiratory illness and unexplained deaths from severe respiratory illness.

- Enhance laboratory surveillance: Sentinel providers will be given additional specimen collection kits and asked to increase the number of nasopharyngeal specimens they submit on patients with ILI. At least one specimen a week will be requested. Any sentinel provider who does not consistently report influenza activity or submit specimens will be contacted by the Influenza Coordinator to assure compliance. These specimens will be sent to the HEALTH Laboratory for typing and sub-typing. Unusual subtypes of influenza will be sent to the CDC for further analysis.

- Retrieve secondary specimens: All private and hospital laboratories with virology culture capacity will be asked to submit isolates from positive influenza cultures to the State Virology Lab for sub-typing.

- Enhance veterinary surveillance: The state epidemiologist will confer regularly with the State Veterinarian and will be notified immediately of outbreaks of suspected influenza in any poultry, bird, swine, or other unusual veterinary phenomena. Consultation with appropriate federal experts on systems to confirm etiology of veterinary disease clusters will occur as necessary.

Pandemic Alert
(Phase 3, 4, and 5)

All of the previously described activities will continue in this phase. The goal will be to set up systems to track the arrival, strain characteristics, and geographic distribution of the novel virus in RI and prepare to measure morbidity and mortality impact after it arrives. In addition to previously mentioned activities, the OCD will enhance surveillance as follows:

- Increase laboratory surveillance: Sentinel providers will be asked to submit four specimens every week.

- Initiate school surveillance: School absenteeism rates for students and staff will be monitored and absenteeism from ILI will be monitored weekly or more frequently as needed. The sentinel school network being used for varicella surveillance will be utilized.

- Conduct off-season outbreak investigation: The OCD will investigate institutional clusters of ILI and any case reports of suspected influenza that occur off season.

- Emergency Department (ED) data for ILI visits: If real-time ED data are not yet electronically available, a temporary active surveillance system for hospital ED visits for ILI will be instituted with at least five large hospitals which are geographically dispersed throughout the state. This will be done by weekly phone calls or emails with the respective hospital EDs.

- Active surveillance for pediatric influenza-related deaths and encephalopathy: Increase to weekly contact with infection control practitioners at Hasbro Children's Hospital.

- Monitor over-the-counter sales of medications purchased to reduce influenza symptoms: RI participates in NRDSS. These data will be monitored closely and the state epidemiologist will be informed of any unusual activity.

Pandemic Period
Phase 6

Once a pandemic has been confirmed, the activities described above which focus on detecting a pandemic will no longer be critical. Energies will be shifted to defining the pandemic and appropriately targeting resources for the identified high-risk groups. Efforts will be made to assess morbidity and mortality distribution and societal impact. The sentinel provider surveillance program will continue to be critical in defining the scope of the pandemic, the age-specific attack rates and any abatement of the pandemic or arrival of a second wave. Enhanced virological surveillance could easily overwhelm the system, and will not be critical once the strain has been identified. Routine lab surveillance will monitor for any new strains that may arise. Surveillance activities during this time would include many of the previously described activities as well as the following:

- Surveillance for hospitalizations and deaths in hospitals:
    - In addition to ED visit information, all influenza-related hospitalizations and deaths would be made reportable to HEALTH to characterize high-risk groups and to identify any unusual clinical presentation, pathology, or risk factors associated with the novel virus.
    - The OCD staff will conduct case investigations on these hospitalizations and deaths as staffing coverage allows.
    - Findings will be disseminated to all providers via HEALTH website. Fax blasts will be used as necessary. The following information will be collected: a/ demographics, b/ date of birth, c/ symptoms, d/ symptom onset date, e/ specimen collection, f/ vaccination history, g/ severity of illness and outcome.

- Epidemiologists will support the Immunization Program staff to create systems to monitor immunization coverage rates.

- Studies, with support from federal epidemiologists, may be conducted to determine vaccine and anti-viral efficacy.

- Information and relevant data will be shared regionally and nationally through regular conference calls, EpiX alerts, and via CDC's secure (data networked restricted) influenza website.

Post-Pandemic Period
Phase 6

- The goals of "pandemic over" surveillance are to provide a detailed retrospective characterization of the pandemic and to evaluate the efficacy of protective action recommendations and emergency management strategies. These surveillance activities may include:

  - Review all RI death certificates for pneumonia and influenza deaths.

  - Review records of hospital admissions for ILI.

  - Conduct retrospective studies of vaccine efficacy if requested by CDC as associated with a plan for distribution and administration of investional new drug (IND).

  - Conduct validation studies of influenza illness reporting.

  - Conduct retrospective studies of protective action recommendations and their effectiveness.

- Do a "hot wash" with all personnel who worked in the section immediately post-pandemic. Record the observations, opinions, and suggestions of all personnel and contribute to the After Action Report.

3. MEDS/SNS Supervisor *Operations Section*

Organization: Reports to Disease Control Director

		Suggested Staffing Needs
• MEDS Supervisor:		1.5 FTE
• Deputy:		1.5 FTE
• Staffing:	Anti-Virals Group	3 FTE
	Community Site Division	3 FTE
	Vaccine Group	3 FTE
• Shifts:	12 hour shifts with weekend coverage.	
• Replacements:	• Family Health • Health Services Regulation • Pharmacy • Clerical Staff	
• Training Needs:	Replacements will receive just-in-time training.	

Actions by Pandemic Phase

Current Activities
Phase 1 and 2

Vaccine Group

- Working in collaboration with the Ocean State Adult Immunization Coalition, increase influenza vaccination rates in Rhode Island to meet the Healthy People 2010 goal of 90% coverage rate for the 65 and older population. Working towards this goal would reduce the annual morbidity and mortality from influenza and its complications, enhance the existing vaccine delivery infrastructure(s) and facilitate access to high-risk populations.

- Working in collaboration with the Ocean State Adult Immunization Coalition, increase pneumococcal vaccination rates in Rhode Island to meet the Healthy People 2010 goal of 90% coverage rate for the 65 and older population. Pneumococcal vaccine is viewed as a primary preventive measure.

- Working in collaboration with the Ocean State Adult Immunization Coalition, increase influenza vaccination rates among healthcare workers. Protected healthcare workers will be critical to meeting the increased staffing needs during a pandemic. Also, healthcare workers who are vaccinated will not transmit disease to patients.

- Consider modifications or refinements to the priority groups. Because there is high probability for a vaccine shortage during a pandemic, the CDC, in collaboration with the Advisory Committee for Immunization Practices (ACIP) and other professional advisory groups, is working to create a rank-order of all the high-priority groups. The

following list of priority (in no rank order) will need to be evaluated at the time of the pandemic. The clinical and epidemiological features of the pandemic may determine the formulation of a rank order listing of priority groups. Priority groups are discussed in Attachment A: *Concept: A Practical Anti-Viral Stockpile for Rhode Island in Preparation for Pandemic Influenza*.

- Create system for distribution and administration of investigational new drug (IND). Some influenza vaccines that are being used in other parts of the world are not licensed for use in the United States. During a pandemic, the Food and Drug Administration (FDA) may grant permission for temporary and/or conditional use of an influenza vaccine. Additional tracking, inventory, and consent paperwork is required in order to use IND vaccine.

- Coordinate influenza pandemic plans with neighboring states (Connecticut and Massachusetts). Coordination of efforts should address patient tracking, provider information, vaccine distribution, and resource sharing.

Anti-Viral Group

- Develop Anti-viral Management Plan, based on current assumptions about the availability of anti-virals, their use during a pandemic, and knowledge about strains of avian influenza currently active in Asia. (Although these strains may not become pandemic, they represent the current threat.) Incorporate planning for a state-run oseltamivir stockpile.

- See Attachment A: *Concept: A Practical anti-Viral Stockpile for Rhode Island in Preparation for Pandemic Influenza*.

Interpandemic Period
Phase 1 and 2

Vaccine Group

- Convene meeting with appropriate internal and external stakeholders to review critical elements of pandemic plan.

- Recommend modifications to existing vaccine distribution (MEDS plan) and/or pandemic plans based on current situation and projected vaccine supply.

- As vaccine is available, activate MEDS plan.

Anti-Viral Group

- Meet with appropriate partners and stakeholders and review the Anti-viral Management Plan.
- Modify plan as needed to account for updates, if any, on recommended target groups, recommended anti-viral uses, and projected anti-viral supply.

Pandemic Alert Period
(Phase 3, 4, and 5)

Vaccine Group

- As vaccine continues to become available, activate MEDS plan.
- Coordinate activities with bordering states (Connecticut and Massachusetts).

Anti-Viral Group

- Ensure that appropriate partners and stakeholders are alerted and prepared for a full Anti-viral Management Plan activation, if necessary.
- Coordinate activities with bordering jurisdictions

Pandemic Period
Phase 6

Vaccine Group

- As vaccine continues to become available, utilize MEDS plan.
- Activate ongoing educational initiatives.
- Coordinate activities with bordering states (Connecticut and Massachusetts)

Anti-Viral Group

- Fully activate the Anti-viral Management Plan.
- Continuously track anti-viral delivery, treatment, and adverse reactions.

Post-Pandemic Period
Phase 6

Vaccine Group and Anti-Viral Group

- De-activate MEDS assets.
- Do a “hot wash” with all personnel who worked in the section immediately post-pandemic. Record the observations, opinions, and suggestions of all personnel and contribute to the After Action Report.

4. Pre-Hospital Director

Operations Section

Organization: Reports to Operations Chief

		Suggested Staffing Needs
• Pre-hospital Director:		3 FTE
• Staffing:	Municipal/911 Unit Leader	3 FTE
	Private Ambulance Unit Leader	3 FTE
	Physician Consultant	0.25 FTE
	Clerical Staff	2.0 FTE
• Shifts:	12 hour shifts 24/7	
• Replacement Staff:	• Health Services Regulation • Clerical Staff - HEALTH	
• Training Needs:	Pretraining and just in time training for replacements.	

Actions by Pandemic Phase

Current Activities

- Training for EMS personnel and development of protocols to include PPE and measures for infectious disease protection
- Planning for Pandemic response

Interpandemic Period
Phase 1 and 2

- Disseminate information to EMS providers regarding threats and response measures.
- Discuss use of Major Incident Protocol including transport to alternative facilities, use of alternative vehicles, mutual aid plan, and a communications plan.
- Coordinate with EMS providers and receiving facilities regarding mutual issues in response.
- Work with EMS providers on plans for surge volume, vehicle decontamination, and staff effects of pandemic flu.
- Assure that plans include maintenance of capability for other emergency care needs
- Work with EMS providers regarding adequate PPE supplies.
- Work with EMS providers to assure adequate documentation of assets and personnel assigned to pandemic response.

Pandemic Alert Period
(Phase 3, 4, and 5)

- Repeat Interpandemic period measures.
- Reinforce use of proper PPE and decontamination measures.
- Implement communications plan.

Pandemic Period
Phase 6

- Repeat interpandemic period measures.
- Implement Major Incident Protocol, including alternative destinations and vehicle measures.
- Monitor status of EMS system and assist as possible through mutual aid and alternatives care facilities.

Post-Pandemic Period
Phase 6

- De-activate assets
- Work with EMS providers to assure health and safety of providers and system.
- Assist EMS providers with recovery efforts including debriefing, reimbursement documentation, system capacity, and other issues.
- Do a "hot wash" with all personnel who worked in the section immediately post-pandemic. Record the observations, opinions, and suggestions of all personnel and contribute to the After Action Report.

5. Medical Care Director

Operations Section

Organization: Reports to Operations Chief

		Suggested Staffing Needs
• Medical Care Director		3 FTE
• Staffing	Hospital Unit Leader	3 FTE
	Nursing Home/ALF UL	3 FTE
	Clinics UL	1.5 FTE
	Mass Care Site UL	3 FTE
	Pharmacy UL	3 FTE
	Home Care UL	3 FTE
	Clerical Staff	3 FTE
• Shifts:	12 hour shifts, 7 days	
• Replacements:	• Communications Specialists - HEALTH (management-level staff) • Data Managers - Div Health Services Regulation • Clerical Staff - HEALTH	
• Training Needs:	Replacements will receive just-in-time training.	

Actions by Pandemic Phase

Current Activities

- Maintain diversion S.O.P. for hospitals.
- Meet with Hospitals to discuss pandemic influenza challenges (infection control; inpatient crowding; loss of staff; loss of staffing "pools;" rationing of anti-virals; diversion; loss of nursing home placement as a discharge option; storage and export of bodies).

Interpandemic Period
Phase 1 and 2

- Maintain diversion S.O.P.
- Review Hospital plans to cope with the challenges of pandemic flu.
- Advise hospitals on legal and regulatory contingencies.
- Cooperate with hospitals in the development of pandemic influenza contingency plans.

Pandemic Alert Period
(Phase 3, 4, and 5)

- Repeat activities of Interpandemic Period.

Pandemic Period
Phase 6

- Repeat activities of pandemic alert.
- Go to "full information" roll calls on all shifts.
- Advise hospitals on the execution of contingency plans.

.

Post-Pandemic Period
Phase 6

- Do a "hot wash" with all personnel who worked in the section immediately post-pandemic. Record the observations, opinions, and suggestions of all personnel and contribute to the After Action Report.
- Systematically audit all diversion data sets, and reports.
- Write comprehensive reports on branch activities.
- Evaluate the performance of the hospital diversion and support branch during all pandemic phases, identify problem areas, and revise S.O.P. as needed.

6. Mass Fatality Director *Operations Section*

- **See Fatality Management Plan: Attachment N, page 154**

The existing Rhode Island ESF-8 Mass Fatality Plan, completed in 2004, was designed to manage the recovery, identification, processing, and release of bodies after a single disaster in which 20 or more deaths have occurred or are suspected. It was not designed to manage the processing of thousands of bodies over a prolonged period, as would occur during an influenza pandemic. Managing mass fatalities on this scale requires a different level of organization, including the deployment of temporary, regional morgues run by several multi-disciplinary "DMORT" teams trained and equipped by the state, all tightly organized as an integrated ESF-8 Mass Fatality Management Branch, and tightly integrated into a Unified Command structure. Guided by these principles, HEALTH is developing the Rhode Island ESF-8 Mass Fatality Plan – II – [Regional Involvement / Prolonged Period].

Organization: Reports to Operations Chief

		Suggested Staffing Needs
• Mass Fatality Director:		1.5
• Deputy:		1.5
• Staffing:	**[Under construction]** Mass Care Site Unit Leader Mortuary Services Unit Leader Post Morgue Services Unit Leader Decendants' Family Assistance Services Unit Leader	
• Shifts:	12 hour shifts, 7 days	
• Replacements:	TBD	
• Training Needs:	Replacements will receive just-in-time training.	

Actions by Pandemic Phase

	Under Construction
Current Activities	
Interpandemic Period **Phase 1 and 2**	

Pandemic Alert Period
(Phase 3, 4, and 5)

- .

Pandemic Period
Phase 6

-

Post-Pandemic Period
Phase 6

- Do a "hot wash" with all personnel who worked in the section immediately post-pandemic. Record the observations, opinions, and suggestions of all personnel and contribute to the After Action Report.

- Evaluate the performance of the planning section during all pandemic phases, identify problem areas, and revise S.O.P. as needed

C. Planning Section

Organization: See page 14

		Suggested Staffing Needs
Planning Section Chief		1.5 FTE
Situation/Information Dir.:		1.5 FTE
Staffing:	Epidemiology Unit Leader	5 FTE
	Medical Care Unit Leader	5 FTE
	Pre-hospital Unit Leader	5 FTE
	Mass Fatality Unit Leader	5 FTE
	Disease Control UL	5 FTE
	Lab Unit Leader	5 FTE
Documentation Unit Dir.:		
Staffing:	Form Preparation UL	3 FTE
	Event Documentation UL	3 FTE
	Scribe	3 FTE
	Technical/Subject Matter Experts	3 FTE

- Replacements: HEALTH management
- Training Needs: Replacements will receive just-in-time training

Actions by Pandemic Phase

Current Activities

- Recruit and train planning teams for each branch. Train together as a section to develop expertise on each of the branches and each of the designated regions of the state.
- Identify planning data elements to track for each branch.
- Create a tracking system for each element, including the identification, recruitment, and training of redundant information sentinels.
- Stockpile sufficient hardware, software, and supplies to accomplish the planning mission.

Interpandemic Period
Phase 1 and 2

- Review planning procedures.
- Establish contact with information sentinels; recruit and train new sentinels as needed.

- Begin collecting planning information at regular intervals. Hold regular planning section meetings.

- Modify the planning system as necessary on the basis of data collection.

Pandemic Alert
Phase 3, 4, and 5

- Preassemble planning section personnel. Inventory the section's hardware, software, and supplies. Replace missing or unavailable personnel and assets, as able.

- Maintain activities of Interpandemic period phase with more frequent planning session meetings.

- Modify planning data elements, as necessary, based on new information or revisions in the plans of the several branches of operations.

Pandemic
Phase 6

- Go to full-time planning. Schedule shift work as required by developments.

- Recruit and train personnel as necessary to replace personnel who cannot report for duty.

- Repeat activities of pandemic phase.

Post-Pandemic
Phase 6

- Do a “hot wash” with all personnel who worked in the section immediately post-pandemic. Record the observations, opinions, and suggestions of all personnel and contribute to the After Action Report.

- Systematically audit all planning data sets and reports.

- Write comprehensive planning reports.

- Evaluate the performance of the planning section during all pandemic phases, identify problem areas, and revise S.O.P. as needed.

D. Logistics Section

Organization: See page 16

		Suggested Staffing Needs
• Logistics Chief:		1.5 FTE
• Deputy:		1.5 FTE
• Communications Dir.		
• Staffing	Incident Communication Center UL	2 FTE
	Family Health Call Center UL	2 FTE
	Communications Equipment UL	2 FTE
	Healthcare Provider Communications UL	2 FTE
• Tech Support Dir.		2 FTE
• Staffing	PC Support UL	2 FTE
	Printing Unit Leader	2 FTE
• Transportation Dir.		2 FTE
• Supply Director		2 FTE
• Personnel Support Dir.		2 FTE
• Staffing	Billeting UL	2 FTE
	Nutritional Support UL	2 FTE
	Staff Coordination UL	2 FTE
	Family/Staff Support UL	2 FTE
• Volunteer Support Dir.		2 FTE
• Staffing:	Registration UL	2 FTE
	Credentialing/Badging UL	2 FTE
• Shifts:	• Normal working hours with evening and weekend coverage • Shift work as necessitated by the work of the branches	
• Replacements:	HEALTH management, clerical Human Resources Dept of Administration staff	
• Training Needs:	Replacements will receive just-in-time training.	

Actions by Pandemic Phase

Current Activities

- Recruit and train logistics teams for each branch. Train together as a section to develop expertise on each of the branches and each of the designated regions of the state.

- Identify logistics needs of each branch. Inventory equipment and supplies, identify redundant suppliers, and order equipment and supplies as needed.

- Create a tracking system for logistics. Assure appropriate hardware, software, supplies, and information references to accomplish the logistics mission.

Interpandemic Period
Phase 1 and 2

- Preassemble logistics section personnel. Inventory the section's hardware, software, supplies, and information references. Replace missing or unavailable personnel and assets.
- Review logistics procedures.
- Establish contact with potential suppliers and develop new suppliers as needed.
- Hold regular logistics section meetings. Review branch plans and changes to branch plans. Assure continuing ability of suppliers to deliver on time.
- Modify the logistics system as necessary on the basis of new information.

Pandemic Alert Period
(Phase 3, 4, and 5)

- Maintain activities of interpandemic period phase, with more frequent logistics session meetings.
- Acquire additional assets as necessary.

Pandemic Period
Phase 6

- Go to full-time logistics; schedule shift work as required by developments.
- Recruit and train personnel as necessary to replace personnel who cannot report for duty.

Post-Pandemic Period
Phase 6

- Do a “hot wash” with all personnel who worked in the section immediately post-pandemic. Record the observations, opinions, and suggestions of all personnel and contribute to the After Action Report.
- Systematically audit all logistics data sets, and reports.
- Write comprehensive logistics reports.

- Evaluate the performance of the logistics section during all pandemic phases. Identify problem areas and revise S.O.P. as needed.

E. Finance/Administration Section

Organization: See page 15

		Suggested Staffing Needs
• Finance Section Chief:		1.5 FTE
• Personnel Director:		1.5 FTE
• Staffing:	Time Unit Leader (UL)	2 FTE
	Claims UL	2 FTE
• Compliance Director		2 FTE
• Staffing	Legal UL	2 FTE
•	Regulatory UL	2 FTE
•	License UL	2 FTE
•	Equipment Certification UL	2 FTE
• Accounting Director		2 FTE
• Staffing	Purchase UL	2 FTE
•	MEDS/Vaccines UL	2 FTE
•	Supplies UL	2 FTE
• Shifts:	Normal working hours with evening and weekend coverage	
• Replacements:	• HEALTH management • Clerical • Department of Administration	
• Training Needs:	Replacements will receive just-in-time training.	

Actions by Pandemic Phase

Current Activities

- Recruit and train finance teams for each branch. Train together as a section to develop expertise on each of the branches.
- Identify elements that require tracking. Once elements are identified, determine if they need to be categorized in any certain way.
- Create tracking system for each element.
- Ensure appropriate hardware, software, information references are available (and software installed) for finance teams.
- Review grants related to pandemic planning to determine flexibility for spending during public health emergency.

- Ensure emergency purchasing power of HEALTH and purchasing permissions for specific individuals as authorized by the director.
- Establish purchasing agreements with hospitals as needed

Interpandemic Period
Phase 1 and 2

- Preassemble finance/admin section personnel. Inventory the section's hardware, software, and information references. Replace missing or unavailable personnel and assets.
- Review finance section procedures.
- Activate tracking system.
- Determine if additional state, regional or federal funds will be available for response.
- Provide supporting documentation for additional funds.
- Serve as liaison with state/federal budget office.
- Ensure efficiency of emergency state purchasing.

Pandemic Alert Period
(Phase 3, 4, and 5)

- Repeat activities of Interpandemic Period.

Pandemic Period
Phase 6

- Repeat activities of pandemic alert phase.

Post-Pandemic Period
Phase 6

- Do a “hot wash” with all personnel who worked in the section immediately post-pandemic. Record the observations, opinions, and suggestions of all personnel and contribute to the After Action Report.
- Systematically audit all finance data sets, and reports.
- Create comprehensive financial report of expenses incurred (supplies and human resources).
- Apply for available federal emergency/disaster relief funding.

- Evaluate the performance of the logistics section during all phases. Identify problem areas and revise S.O.P. as needed.

F. Safety Officer

Organization: Reports to the Incident Commander

		Suggested Staffing Needs
• Safety Officer		1.5 FTE
• Deputy:		1.5 FTE
• Shifts:	12 hour, 7 days	
• Replacements	Occupational Health Office Department of Administration	
• Training Needs:	Pre-event and just in time training	

The role of the safety officer is to develop and recommend measures for assuring personnel safety, and to assess and/or anticipate hazardous and unsafe situations. This will primarily involve ensuring the proper usage of the appropriate personal protective equipment (PPE), including respiratory and barrier protection.

Actions by Pandemic Phase

Current Routine Activities

- Make recommendations regarding personal protection equipment (PPE) requirements (primarily respiratory) including OSHA medical monitoring and written Respiratory Protection Plan (RPP).
- Assist in acquisition of appropriate PPE.
- Assist in preparation of responder program.
- Provide (or arrange) training on PPE.
- Provide (or arrange) fit-testing on respiratory protection to be utilized.
- Identify properly trained, qualified individuals within the Division of Environmental Health and the Office of Occupational Health to assist during an event.

Interpandemic Period
Phase 1 and 2

- Continue activities as described in the Current Routine Activities
- Confirm acquisition of adequate supplies of PPE by responding programs
- Provide assistance/expertise as requested
- Maintain and update as necessary list of trained, qualified individuals to staff assistant safety officer positions

Pandemic Alert Period
Phase 3, 4, and 5

- Continue/accelerate (if necessary) above activities
- Coordinate with Incident Commander
- Establish Safety Command Post
- Notify and verify availability of potential staff from list of previously identified, properly trained, qualified individuals
- Maintain communications through chain-of-command

Pandemic Period
Phase 6

- Continue activities as described in the Pandemic Phase
- Provide recommendations/guidance as required
- Report to and perform functions required to support HEALTH activities as specified by the Incident Commander
- Activate previously identified individuals to provide assistance as needed to staff positions

Post-Pandemic Period
Phase 6

- Do a "hot wash" with all personnel who worked in the section immediately post-pandemic. Record the observations, opinions, and suggestions of all personnel and contribute to the After Action Report.
- Review actions taken and assess any problems/difficulties encountered in order to revise EOP
- Institute any revisions to EOP

Attachment A

Concept: A Practical Anti-Viral Stockpile for Rhode Island in Preparation for Pandemic Influenza

---

To prepare for a large-scale influenza emergency, the State of Rhode Island would create a rotating stockpile of oseltamivir at the state's central pharmacy. Initially, the state would purchase at least 3,000 treatment courses of oseltamivir (up-front, one-time cost: $180,000). A portion of the stockpile would be composed of the pediatric formualtion of the anti-viral. A stockpile of 3,000 treatment courses represents about half a year's normal use of oseltamivir statewide, allowing complete rotation of stock in six months. The state would shop for oseltamivir with a shelf life of at least six months to avoid expired product.

The central pharmacy would act as distributor between out-of-state wholesalers and in-state retail pharmacies, selling its inventory to in-state retailers at the wholesale (purchase) price (annual cost to manage inventory and to fill orders ~ $10,000). This arrangement would be negotiated with in-state pharmacies and modified, as necessary, to avoid inconveniences for in-state pharmacies during normal times, and to assure state control of a small oseltamivir stockpile during influenza emergencies.

If an influenza emergency were imminent, retail pharmacies would sell all available inventories back to the central pharmacy to maximize centralized oseltamivir assets and to protect the former from rough treatment by demanding customers. The state would publicize the centralization of oseltamivir assets to reduce public pressure on retail pharmacies and would inform community physicians that prescriptions for oseltamivir would not be filled until the emergency abated or oseltamivir supply exceeded potential demand. The latter is unlikely were a large-scale influenza emergency to occur in the near future.

For the duration of a pandemic influenza emergency, security at the central pharmacy would be augmented. Oseltamivir would be handled and distributed under strict, centralized controls. Oseltamivir would be released to hospitals for treatment of healthcare workers and "first responders" (police, fire, and rescue personnel), according to strict, statewide protocols, subject to audit.

A larger stockpile can be contemplated, but availability, cost, product expiration, and effectiveness of oseltamivir must be considered carefully. At least 29,500 treatment courses would be needed to treat all the healthcare workers and first responders projected to become infected (see Table 1, below).

N.B. This basic concept has been drafted to supplement the state's Pandemic Influenza Plan.

Background

A recent strain of avian influenza A (H5N1) has caused widespread mortality among domestic poultry in several Asian countries, and has infected cats, pigs, and humans. Of 116 human cases positively identified with reliable laboratory tests since January 2004, 60 (52 percent) have died. As yet, the virus is not easily transmitted from human to human, but such transmission is considered highly likely in the near future, and may spark a worldwide influenza epidemic (pandemic).

The use of anti-virals may lessen mortality during a pandemic, and therefore is the focus of intense study at present. Anti-virals have been used with limited success to treat humans infected with avian influenza A (H5N1).

Available Anti-Virals

The U.S. Food and Drug Administration has approved four anti-viral medications for treating influenza:

- Amantadine and rimantadine are the oldest of the four. They are available in abundant supply. However, abuses in the use of these anti-virals (widespread use in Asia for the prophylaxis of poultry) have rendered them ineffective in the treatment of avian influenza A (H5N1), a likely cause of the next influenza pandemic.

- Oseltamivir (Tamiflu), a newer anti-viral, is scarce in the United States, and will remain so for at least a year, perhaps longer. Oseltamivir has been used effectively in Asia to treat human cases of avian influenza A (H5N1), but a recent (9/30/05) report indicates diminished effectiveness in the treatment of human cases in Vietnam.

- Zanamivir (Relenza), also new, is prepared as an inhaled powder, and is not recommended for use by patients with chronic lung conditions. Zanamivir may still be effective in the treatment of human cases of avian influenza A (H5N1), but its continued effectiveness cannot be assured.

Stockpiling Anti-Virals

Some European nations have begun stockpiling influenza antivirals. Following the lead of Europe, and guided by reports about treating recent human cases of avian influenza A (H5N1) in Asia, the United States government has developed a very small stockpile of oseltamivir (one to two million treatment courses), and may increase its inventory, based on availability, funding, and the continued effectiveness of the drug (now seriously in question). Some state governments have also contemplated building stockpiles of oseltamivir, primarily because it is in short supply, which might cause severe under-supply during a time of intense need, such as a large-scale influenza emergency. N.B.:

There is little need to stockpile amantadine and rimantadine, because they are not in short supply. In any case, they have been proven to be ineffective against avian influenza A (H5N1), the current most plausible cause of an influenza pandemic in the near future. As well, unless and until zanamivir is prepared in a form that can be administered IM or IV, it probably is not a good candidate for stockpiling.

Pros and Cons of Stockpiling Oseltamivir in Rhode Island

- Pros: Of the four influenza anti-virals, it makes *some* sense at present to stockpile oseltamivir. Even if A (H5N1) becomes resistant to the drug, it may still be effective in treating other strains of (human) influenza (which may circulate independently of A - H5N1), and it is better tolerated and easier to use at present than zanamivir. A small rotating stockpile would provide the state control of some product in times of emergency. Up-front cost of a small stockpile (six month's supply) would not be lost if the state acted as a distributor between wholesale and retail pharmacies. Annual ordering, warehousing, and distribution costs would be quite low.

- Cons: Oseltamivir may already be useless in the treatment of avian influenza A (H5N1), and there is no guarantee that it will be effective against the next influenza strain to threaten a pandemic. Creating a stockpile ties up state resources and may cause retail pharmacies some inconvenience.

A Close Look at Oseltamivir

- Uses:

Oseltamivir may be used prophylactically to prevent clinical manifestations of human influenza, if taken daily throughout the period of potential exposure. This use is precluded during a time of extreme need, because one prophylactic course may consume the equivalent of many treatment courses. For example, 112 oseltamivir capsules would be needed to protect one person from influenza throughout a typical epidemic "wave" of about eight weeks (2 capsules a day for eight weeks = 112 capsules). The same quantity could be used to treat 11 people (2 capsules a day for five days x 11 people = 110 capsules).

- Cost

Currently, oseltamivir wholesales for about $6.00 per capsule, or $60.00 per 10-capsule treatment course.

- Shelf Life

Oseltamivir has a shelf life of about five years from the date of manufacture. However, most oseltamivir available in Rhode Island today has a shelf life of only a few months, because it was manufactured several years ago. For example, in July 2005, 60 percent of

the oseltamivir on the shelves of Rhode Island pharmacies was set to expire in October 2005.

- Current Inventory

In July 2005, Rhode Island pharmacies had between 5,000 and 6,000 capsules in stock, representing between 500 and 600 treatment courses.

- Recent Usage

In 2005, more than 60,000 oseltamivir capsules will be dispensed in Rhode Island, representing more than 6,000 prescriptions of 10 capsules each.

- Current Availability

At the present time, oseltamivir is in short supply, because of worldwide demand for the drug. A majority of pharmacies in Rhode Island reported the product on back-order in July 2005.

Proposed Use of Oseltamivir during an Influenza Pandemic

During an influenza emergency, oseltamivir would be released to hospitals for treatment of healthcare workers and "first responders" (police, fire, and rescue personnel), according to strict, statewide protocols, subject to audit. The number of healthcare workers and first responders projected to become infected is presented in Table 1.

Table 1: Numbers of Healthcare Workers and First Responders Projected to Become Infected
1918-Like Pandemic

Personnel Type	*Estimated Number Working 2005*	*Projected Number Infected*
Healthcare Workers		
- Hospital Workers	25,000	12,500
- Nursing Home Workers	12,000	6,000
- All Other Healthcare Workers	7,500	3,750

First Responders		
- Police (State, Local, ACI Guards)	4,500	2,250
- Fire	4,000	2,000
- EMS	4,000	2,000
- National Guard (in-state)	2,000	1,000
Total	59,000	29,500

ATTACHMENT B

Concept: Pandemic Influenza's Impact on Acute Care Hospitals in Rhode Island

Worst Case Scenario: 1918-Like Pandemic, 6-Week Duration

Influenza Pandemics

Influenza pandemics are worldwide outbreaks of great significance, causing substantial morbidity, mortality, and associated costs. The 20th century witnessed three influenza pandemics of note, the "Spanish flu" of 1918-1919, the "Asian flu" of 1957-1958, and the "Hong Kong flu" of 1968-69. In excess of 600,000 residents of the United States died as a result of these pandemics (500,000 in 1918-1919, 70,000 in 1957-1958, and 34,000 in 1967-1968). Today, absent effective vaccine or anti-virals,[1] 'medium-level' and 'worst-case' pandemics, as envisioned by the CDC, would have the following impacts in Rhode Island[2] relative to an average annual influenza season:

Table 1: Influenza in Rhode Island
Three Models

	Average Flu Season Estimate	*Moderate Severity Flu Pandemic Estimate*	*Severe Flu Pandemic Estimate*
Model:	Average Year	1957-58, 1967-68	1918
Impacts			
Illnesses:	125,000	250,000	300,000
Outpatient visits:	?	100,000	150,000
Hospitalizations:	670	3,027	34,650
ICU Care:	?	425	5,197
Mechanical ventilation:	?	227	2,599
Deaths:	120	731	6,661
Economic impact:	?	$400 million	Severe

1 - It is likely that existing vaccine would not be very effective against novel strains of influenza, and that anti-virals would be in short supply.

2 - Based on CDC estimates for the United States as a whole.

Worst Case Scenario: 1918-Like Pandemic, 6-Week Duration

In a worst-case pandemic scenario, approximately one-third of the population would become ill in six weeks with influenza of 1918-like severity. 150,000 would seek medical care, and about 35,000 would need hospitalization. Of the latter, about 5,000 would need intensive care, and of these, about 2,500 would require mechanical ventilation.

Assuming a flat epidemic curve (unlikely, but instructive), an illness course of about one week, and an average hospital stay of one week (varying from three days to two weeks) the demand on acute-care hospitals in Rhode Island at any one time during the six-week period would look something like the estimates in Table 2. Deaths are included because most deaths would occur in hospitals. Outpatient visits are included to illustrate a potential demand on hospital services, were primary care practices forced to close throughout the state.

Table 2: Demand on Acute Care Hospitals;
Flat Epidemic Curve

Outpatient visits:	25000
Hospitalizations:	5,775
ICU care:	866
Mechanical ventilation:	433
Deaths	1,110

In actuality, epidemic curves are far from flat. For example, approximately two-thirds of the demand may be concentrated in a two-week period at the peak of the epidemic. Assuming a steep epidemic curve, demand on acute care in Rhode Island at any one time during the two-week epidemic peak would look something like the estimates in Table 3.

Table 3: Demand on Acute Care Hospitals
Steep Epidemic Curve

Outpatient visits:	50,000
Hospitalizations:	11,550
ICU care:	1732
Mechanical ventilation:	866
Deaths	2,220

In collaboration with other state agencies, the entire healthcare system, and many community-based organizations, HEALTH would attempt to flatten the epidemic curve, retarding person-to-person disease transmission in two stages.

Stage One: Chains of Person-to-Person Transmission

Although improbable, there is a small possibility that HEALTH may be able to retard transmission of pandemic influenza among people in Rhode Island for a short period of time by identifying, isolating, and tracking all people who have been exposed to verified cases of influenza. For example, were a case of influenza-like-illness to be identified on an airplane flight to Rhode Island, HEALTH, in collaboration with the Rhode Island Airport Corporation, other state agencies, and community partners, would do the following:

- Call for infection control precautions in all healthcare settings.
- Treat all influenza-like illness with suspicion.
- Identify and isolate influenza cases.
- Identify, isolate, and monitor all people who had come into contact with influenza cases.

The probability of this scenario would be highest during the early stages of an influenza pandemic of Asian origin, and lowest during the later stages, when it is likely that influenza would enter Rhode Island at many points simultaneously.

Stage Two: Community Transmission

At some point during an influenza pandemic, clusters of influenza cases would break throughout in Rhode Island. To slow the transmission of disease at this stage of the pandemic, HEALTH, in collaboration with the Department of Education, the Department of Children, Youth, and Families, the Department of Mental Health, Retardation, and Hospitals, other state agencies, and community partners, would do the following:

- Call for infection control precautions in all healthcare settings.
- Call for strict infection control measures in congregate living sites.
- Call for closure of schools and day care centers throughout the state.
- Call for cancellation of public events.
- Issue advisories on other measures to slow the transmission of influenza.

Even if emergency measures implemented by HEALTH were to flatten the epidemic curve of a 1918-like influenza pandemic in Rhode Island, the surge of influenza cases, many requiring hospitalization, would tax the healthcare system severely, threatening the stability of the state's 11 acute-care hospitals.

Worst Case Scenario: Effect on Acute Care Hospitals

A 1918-like influenza pandemic would cause the following overwhelming problems for acute care hospitals:

1. Overwhelming demand for emergency department services
   a. Normal load (non-influenza patients and DOAs)
   b. New load (non-influenza) from collapsing primary care system
   c. Influenza load (very large)
   d. Influenza DOAs from EMS requiring declaration of death by a physician

2. Threat of influenza outbreaks among inpatients
   a. NB: New non-influenza patients may be infected and will sick in the hospital
   b. NB: Visitors may be infected

3. Overwhelming demand for inpatient beds, ICU beds, ventilators
   a. Normal load (non-influenza)
   b. Influenza load (very large; intense need for ICU beds, ventilators)
   c. Reduced rate of out-migration to nursing homes
   d. NB: Reduced staff size at nursing homes
   e. NB: Avoidance of influenza outbreaks in nursing homes

4. Overwhelming demand for morgue space
   a. Normal load (non-influenza)
   b. Influenza load (severe)
   c. Reduced rate of out-migration to funeral homes
      - NB: Reduced staff size at funeral homes

5. Reduced staff size
   a. From illness
   b. From family illness
   c. From refusal to work

Worst Case Scenario: Proposed Strategies to Address Surge in Demand for Hospital Services

To address the overwhelming problems of an influenza pandemic, HEALTH proposes that hospitals supplement existing emergency response plans with the following five modules, to be activated as an influenza pandemic threatens the state:

1. Emergency Department Surge Capacity
   a. Separate emergency department services for influenza-like illnesses from other emergency department services (preferably in separate locations).
   b. Route DOAs directly to the morgue for declaration (below).

c. Organize primary care providers to maximize community-based primary care throughout a pandemic.

2. Inpatient Segregation:
   a. Establish an infection isolation unit to separate influenza and non-influenza patients.
   b. Monitor non-influenza admissions for the development of influenza.

3. Inpatient Surge Capacity:
   a. Triple "surge bed" capacity on campus.
   b. Organize additional surge capacity off campus.

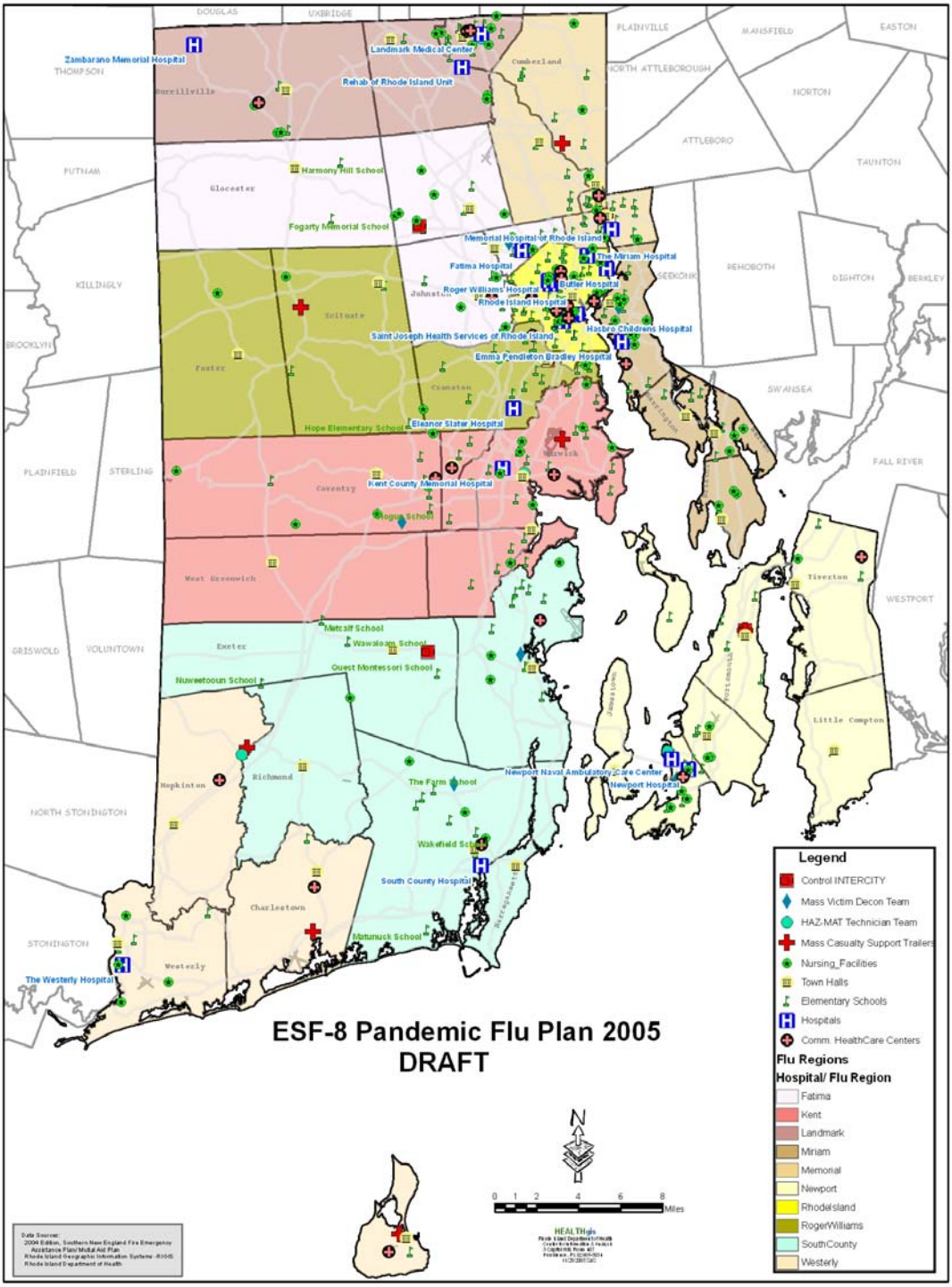
4. Morgue Surge Capacity:
   a. Reorganize SOP to declare DOAs before entering the hospital.
   b. Reorganize SOP to integrate morgue expansion modules supplied by HEALTH.

5. Half Staffing:
   a. Reorganize SOP to run all services with half staffing (assuming relaxed care standards).

To simplify the development of these modules and their possible implementation, HEALTH further proposes that acute-care hospitals (with the exception of Women and Infants Hospital) assume responsibility for all patient care within the confines of geographic "healthcare service regions." The following hospital assignments are proposed for discussion:

Table 4: Healthcare Service Regions
Proposed Hospital Assignments

Healthcare Service Regions (from North to South)	*Hospital*
▪ Burrillville, North Smithfield, Woonsocket	Landmark
▪ Cumberland, Lincoln, Central Falls, Pawtucket	Memorial
▪ Glocester, Smithfield, Johnston, North Providence	Fatima
▪ Foster, Scituate, Cranston	Roger Williams
▪ Providence	Rhode Island
▪ East Providence, Barrington, Warren, Bristol	Miriam
▪ Jamestown, Portsmouth, Middletown, Newport, Tiverton, Little Compton	Newport
▪ Coventry, West Warwick, Warwick, West Greenwich, East Greenwich	Kent
▪ Exeter, North Kingstown, Richmond, South Kingstown, Narragansett	South County
▪ Hopkinton, Westerly, Charlestown, New Shoreham	Westerly


ESF-8 Pandemic Flu Plan 2005
DRAFT
Legend
Control INTERCITY
Mass Victim Decon Team
HAZ-MAT Technician Team
Mass Casualty Support Trailers
Nursing_Facilities
Town Halls
Elementary Schools
Hospitals
Comm. HealthCare Centers
Flu Regions
Hospital/ Flu Region
Fatima
Kent
Landmark
Miriam
Memorial
Newport
RhodeIsland
RogerWilliams
SouthCounty
Westerly
Zambarano Memorial Hospital
Landmark Medical Center
Rehab of Rhode Island Unit
Harmony Hill School
Fogarty Memorial School
Memorial Hospital of Rhode Island
The Miriam Hospital
Fatima Hospital
Roger Williams Hospital
Butler Hospital
Rhode Island Hospital
Hasbro Childrens Hospital
Saint Joseph Health Services of Rhode Island
Emma Pendleton Bradley Hospital
Eleanor Slater Hospital
Hope Elementary School
Kent County Memorial Hospital
Metcalf School
Wawaloam School
Quest Montessori School
Nuweetoouh School
Newport Naval Ambulatory Care Center
Newport Hospital
The Farm School
Wakefield School
South County Hospital
Matunuck School
The Westerly Hospital
DOUGLAS
UXBRIDGE
PLAINVILLE
MANSFIELD
EASTON
THOMPSON
NORTH ATTLEBOROUGH
NORTON
ATTLEBORO
TAUNTON
PUTNAM
KILLINGLY
REHOBOTH
DIGHTON
BERKLEY
BROOKLYN
SWANSEA
PLAINFIELD
STERLING
FALL RIVER
GRISWOLD
VOLUNTOWN
WESTPORT
NORTH STONINGTON
STONINGTON
Burrillville
Glocester
Cumberland
Scituate
Foster
Johnston
Cranston
Warwick
Coventry
West Greenwich
Exeter
Richmond
Hopkinton
Charlestown
Westerly
Tiverton
Little Compton
Jamestown
Portsmouth
Middletown
Narragansett
N
0 1 2 4 6 8 Miles
HEALTHgis

Attachment C

Influenza Personal Protective Equipment for First Responders

I. Background Information on Influenza Transmission

Influenza is primarily transmitted from person to person via large virus-laden **droplets** (particles >5 µm in diameter) that are generated when infected persons cough or sneeze. These large droplets can settle on the mucosal surfaces of the upper respiratory tracts of susceptible persons who are near (e.g., within 3 feet) infected persons. Transmission may also occur through direct contact or indirect contact with respiratory secretions such as when touching surfaces contaminated with influenza virus and then touching the eyes, nose or mouth. Adults can spread influenza to others one day before being symptomatic to approximately five days after symptoms start, while children can spread influenza to others for 10 or more days.

II. Basic Infection Control with Standard Precautions

A. Handwashing

Wash hands after touching blood, bodily fluids, secretions, excretions, and contaminated items, whether or not gloves are worn. Wash hands immediately after gloves are removed, between patient contacts, and when otherwise indicated to avoid transfer of microorganisms to other patients or environments. It may be necessary to wash hands between tasks and procedures on the same patient to prevent cross-contamination of different body sites.

1. Use a plain (non-antimicrobial) soap for routine handwashing.
2. Use an antimicrobial agent or a waterless antiseptic agent when water is not immediately available or when hands are visibly soiled.

B. Gloves

Wear gloves (clean, non-sterile gloves are adequate) when touching blood, body fluids, secretions, excretions, and contaminated items. Put on clean gloves just before touching mucous membranes and nonintact skin. Change gloves between tasks and procedures on the same patient after contact with material that may contain a high concentration of microorganisms. Remove gloves promptly after use, before touching uncontaminated items and environmental surfaces, and before going to another patient, and wash hands immediately to avoid transfer of microorganisms to other patients or environments.

C. Mask, Eye Protection, Face Shield

Wear a mask and eye protection or a face shield to protect mucous membranes of the eyes, nose, and mouth during procedures and patient-care activities that are likely to generate splashes or sprays of blood, body fluids, secretions, and excretions.

D. Transport

If transport or movement is necessary, minimize patient dispersal of droplets by masking the patient, if possible. Use mouthpieces, resuscitation bags, or other ventilation devices as an alternative to mouth-to-mouth resuscitation methods at times when the need for resuscitation is predictable.

III. Personal Protective Equipment

A. Standard infection control should be followed with all patient contacts, but during a pandemic it is a MUST.

B. Disposable gloves made of lightweight nitrile or vinyl or heavy duty rubber work gloves that can be disinfected should be worn. To protect against dermatitis, which can occur from prolonged exposure of the skin to moisture in gloves caused by perspiration, a thin cotton glove can be worn inside the external glove. Gloves should be changed if torn or otherwise damaged. Remove gloves promptly after use, before touching non-contaminated items and environmental surfaces.

C. Protective clothing, preferably disposable outer garments or coveralls, an impermeable apron or surgical gowns with long cuffed sleeves, plus an impermeable apron should be worn.

D. Disposable protective shoe covers or rubber or polyurethane boots that can be cleaned and disinfected should be worn.

E. Safety goggles should be worn to protect the mucous membranes of eyes.

F. Disposable particulate respirators (e.g., N-95, N-99, or N-100) are the minimum level of respiratory protection that should be worn. This level or higher respiratory protection may already be in use in poultry operations due to other hazards that exist in the environment (e.g., other vapors and dusts). Workers must be fit-tested to the respirator model that they will wear and also know how to check the face piece to seal face. Workers who cannot wear a disposable particulate respirator because of facial hair or other fit limitations should wear a loose-fitting (i.e., helmeted or hooded) powered air-purifying respirator equipped with high-efficiency filters.

G. Disposable PPE should be properly discarded, and non-disposable PPE should be cleaned and disinfected as specified in state government, industry, or USDA outbreak-response guidelines. Wash hands after removal of PPE.

H. Protective clothing, preferably disposable outer garments (e.g. gown with long sleeves, tyvex coveralls, impermeable aprons)

I. Disposable protective shoe coverings or rubber boots that can be cleaned or sanitized

J. Eye Protection: safety goggles or face shields should be worn to protect the mucous membranes of the eyes, especially when within three feet of the patient.

K. Equipment and vehicles should be properly disinfected and cleaned after contact with a potential/infected patient. Use of disposable supplies is encouraged.

IV. Airborne Precautions

Use of disposable particulate respirators (e.g., N-95) is the minimum level of protection. Personnel should be fit-tested for particulate respirator via standards of National Institute of Occupational Safety and Health.

Resources:

Interim Guidelines for Personal Protection and Using Personal Protective Equipment During an Influenza Pandemic:
http://www.moh.govt.nz/moh.nsf/0/5E84C705E26CCF67CC257081000F1BC1/$File/interimguidelinesforppe.doc

Personal Protective Equipment Information:
http://www.globalsecurity.org/security/ops/hsc-scen-3_ppe.htm
http://www.iafc.org

Interim Guidance for the Use of Masks to Control Influenza Transmission:
http://www.cdc.gov/flu/professionals/infectioncontrol/pdf/flumaskguidance.pdf

Standard Precautions:
http://www.cdc.gov/ncidod/dhqp/gl_isolation_standard.html

Droplet Precautions:
http://www.cdc.gov/ncidod/dhqp/gl_isolation_droplet.html

Contact Precautions:
http://www.cdc.gov/ncidod/dhqp/gl_isolation_contact.html

Interim Guidance for Protection of Persons Involved in U.S. Avian Influenza Outbreak Disease Control and Eradication Activities:
http://www.cdc.gov/flu/avian/professional/protect-guid.htm

Attachment D

Concept: Use of Quarantine to Control Influenza Outbreaks

Q*uarantine* [a period of isolation to prevent disease spread], is ***not*** effective in controlling multiple influenza outbreaks in large, immunologically naive populations, because the disease spreads too rapidly to identify and control chains of transmission. Even if quarantine were *somewhat* effective in controlling influenza in large populations, it would not be feasible to implement and enforce with available resources, and would damage the economy by reducing the workforce.

Quarantine may be of limited use in slowing the spread of disease during the *earliest* stages of influenza outbreaks, *only if special circumstances apply*. For example, were a case of influenza-like illness to be identified in an isolated group, such as the passengers and crew of an airplane, public health officials could prevent or slow the spread of disease to other groups by:

- Quarantining all passengers and crew members for several days
- Transferring all who become ill to isolation wards for treatment
- Treating all influenza-like illness in the wider community with suspicion

The probability of this scenario is low in all circumstances, but diminishes over time as an influenza pandemic spreads.

Quarantine should not be confused with methods used to prevent outbreaks of illness in healthcare facilities, such as patient segregation, or with methods used to slow disease spread in large populations, such as school closures.

Attachment E

ESF-8 Pandemic Influenza Plan
Special Populations

- Updated 11 Jan 2006 -

I. Purpose

This document has two purposes: 1/ to note and categorize groups of people who are more vulnerable than others to infectious illness, to disruption in regular services, and to loss of work, and thus warrant specific consideration in planning for pandemic influenza, and 2/ to suggest initial strategies for addressing vulnerabilities, as a spur to further planning.

II. Background

An influenza pandemic is a *global* epidemic that occurs when a *novel strain* of influenza appears in the human population, causes serious illness, and spreads easily from person to person. Pandemics usually assault a population in two or more epidemic *waves* separated by 3-12 months.

When a novel strain of influenza emerges, 25% to 35% of the population may develop clinical disease. Case fatality may approach three percent. Temporary economic disruptions may cause significant hardships locally and globally. Governments must respond quickly and forcefully to limit potentially catastrophic consequences.

Complicating the control of pandemic influenza, vaccines effective against novel virus strains are usually not available during the first wave of illness. Effective anti-viral medications, currently in short supply, may or may not mitigate the severity of novel virus strains.

It is only a matter of time before the next influenza pandemic develops. Its severity cannot be predicted, but modeling suggests that the impact of a pandemic on Rhode Island may be substantial. For example, in the absence of effective control measures (vaccines or antivirals), a 1918-like pandemic will make about 300,000 Rhode Islanders sick; about 35,000 will require hospital care; about 7,000 will die. Because the entire nation will be engaged simultaneously, Rhode Island will have to address local consequences with local assets, only.

During an influenza pandemic, Rhode Island's health care system, mental health care system, and social services system(s) will be strained to the breaking point by staff attrition (of as much as 50 percent) and increased demand for services:

1. **Health Care:** Primary health care practices will be forced to close, smaller practices first, then larger practices, shifting demand for services to hospital emergency departments. Populations that normally depend on emergency departments for primary health care or urgent health care will face insurmountable barriers to services. Demand for inpatient beds will exceed supply by multiples of three to five. Understaffed nursing homes will face in-house outbreaks of influenza among frail patients. Home health care services will be critically challenged, leaving thousands of vulnerable clients stranded without services. Some of these clients will get their medical needs met with the help of family, friends, or neighbors, but others who require skilled nursing services may succumb to chronic illnesses or infection.

2. **Mental Health Care System:** Community mental health centers will be forced to cancel many appointments. Understaffing in group homes may easily become unmanageable. Many pharmacies will close, disrupting prescription refills.

3. **Social Services System(s):** The availability of all social services will be severely compromised. Many clients will not be able to reach case managers. Available staff will have to triage client needs. Staffing in essential service facilities like homeless shelters may become compromised, given the high risk of disease transmission from clients to staff in crowded settings.

III. Special Populations

Certain groups of people are more vulnerable than others to infectious illness, to disruptions in regular services (public and private), and to the loss of work or business income. In pandemic times, these groups bear a disproportionate burden of illness and hardship unless government plans ahead to compensate for these vulnerabilities, addressing existing institutional barriers to the equitable distribution of services. For example, many of the people who are most vulnerable to the burdens of pandemic influenza are members of racial or ethnic minority groups (many of the latter with limited English proficiency) who regularly face institutional barriers to societal resources. In times of crisis, these barriers, which inevitably worsen, interact with the vulnerabilities of the moment to create overwhelming challenges.

A. <u>Populations Vulnerable to Infectious Illness</u>

1. <u>People who live in group quarters</u> are especially vulnerable to exposure. They include hospital inpatients, nursing home patients, students who reside in dormitories, prisoners, and people who spend the night in homeless shelters.

Suggested strategies:

- **Isolation:** Isolate influenza patients from non-influenza patients; isolate and observe newly admitted patients for several days before assigning them to influenza or non-influenza units.
- **Spacing:** Avoid physical crowding in homeless shelters by increasing the aggregate square footage of all homeless shelters in the state; control physical crowding in prisons by slowing incarceration, (in comparison, hastening discharge may decrease crowding in correctional facilities, but increase crowding in homeless shelters); alter meal schedules to avoid crowding.
- **Hygiene:** Establish special rules of hygiene* for residents; provide adequate facilities and supplies to assure hygiene.

    * Including: Cough etiquette, hand washing, use of alcohol-based hand gels, physical contact, crowding, disposal of handkerchiefs, masks. [N.B.: At the time of this writing, neither HEALTH nor the federal government is recommending that members of the general public use masks during an influenza pandemic.]

2. People who depend on public transportation are especially vulnerable to exposure. They include people with disabilities and people of low income who do not own cars, including many students.

Suggested strategies:

- **Spacing:** Run additional buses on crowded runs (routes/times).
- **Hygiene:** Establish special rules of hygiene* for passengers.

    * Including: Cough etiquette, crowding, disposal of handkerchiefs, masks. [N.B.: At the time of this writing, neither HEALTH nor the federal government is recommending that members of the general public use masks during an influenza pandemic.] Consider ways of promoting the use of alcohol-based hand gels.

3. People whose jobs increase the probability of exposure to sick people are at high risk of infection. They include health care workers, first responders (police, fire, rescue), and other service providers.

Suggested strategies:

- **Hygiene:** Establish special rules of hygiene for workers; provide adequate facilities and supplies to assure hygiene.

    * Including: Hand washing, use of alcohol-based hand gels, physical contact.

- **Personal Protective Equipment:** Provide workers with masks, gloves, and other personal protective equipment useful in preventing transmission of droplet-borne infections. (Face shields or gowns may also be useful for health care providers performing certain tasks.)

4. People with immature or compromised immune systems are especially vulnerable to severe infections. They include infants, people infected with HIV, patients receiving chemotherapy, patients receiving immunosuppressive medications (e.g., patients who have received transplanted organs), patients who are otherwise extremely ill (e.g., some hospital inpatients and some nursing home residents), and people who are extremely old.

Suggested strategies:

- **Segregation:** Promote voluntary segregation; teach methods of crowd avoidance; alter foot traffic in hospitals and nursing homes to effect semi-isolation of especially vulnerable patients.

5. People of limited English proficiency and people who do not use the major news media are at high risk of missing important public information related to disease prevention and control. They include people who have immigrated recently to the United States (including refugees), people with impaired literacy, people of very low income, and people who are homeless.

Suggested strategies:

- **Information:** Develop tailored information strategies to reach specifically defined audiences with public information; develop non-traditional channels of information dispersion, as necessary.

B. Populations Vulnerable to Disruption in Regular Services

1. People who depend on urgent or emergency care facilities for primary health care are vulnerable to the complete loss of these services for the duration of a pandemic, and probably for several before and after a pandemic. They include people of very low income and healthy young adults who have not yet sought a “medical home” for primary health care.

Suggested strategies:

- **Primary Care:** Evaluate the primary care system in each health care service region; organize basic primary care assets for people who do not have a medical home, many of whom will not have health insurance; stand up assets several weeks prior to the approach of a pandemic wave in the state (on average, the state should have at least weeks’ warning of the approach of pandemic influenza); maintain assets until several weeks after the passing of a pandemic wave in the state.

2. People who depend on frequent appointments for medical care or mental health services are vulnerable to the loss of these services for the duration of a pandemic and for several months afterwards, because of difficulty in finding appointment slots.

Suggested strategies:

- **Specialty Care:** Develop alternatives to periodic office visits ("re-visits") during pandemic periods, e.g., a system which facilitates telephone triage, telephone advice, telephone prescribing.
- **Mental Health Care:** Develop emergency care plans and emergency support networks for all clients who use mental health care services regularly; teach clients to use emergency care plans; drill the plans with them.

3. People who require frequent refills of prescription drugs are vulnerable to disruption in pharmacy services. They include the chronically ill (including those with chronic mental illness).

Suggested strategies:

- **COOP Plans:** Assure the development of Continuity-of-Operations plans for all retail pharmacies, focusing on the continuity of prescription services and the availability of essential over-the-counter medications.
- **Pharmacy:** Work with health insurance plans to permit three-month or four-month refills of regular medication for chronic illnesses.

4. People who depend on public stipends are vulnerable to delays in disbursement. They include families supported by Aid for Dependent Children, people with disabilities, and low income pensioners.

Suggested strategies:

- **COOP/COG Plans:** The state should assure the development of Continuity-of-Operations and Continuity-of-Government plans for all essential state, municipal, and private social services.

5. People who depend on public transportation are vulnerable to cutbacks in service and elimination of bus routes. They include people with disabilities and people of low income who do not own cars, and many students.

Suggested strategies:

- **COOP Plans:** Assure the development of Continuity-of-Operations plans for public transportation services.

- **Emergency Schedules:** Develop emergency schedules to balance the needs of riders with the loss of drivers.
- **Substitute Drivers:** Develop a roster of former drivers; provide them with refresher training in a variety of vehicles on a variety of routes to maximize the number of substitute drivers immediately available for duty during an influenza pandemic.
- **Anticipated Maintenance:** At the earliest signs of an influenza pandemic (most probably in Asia), accelerate vehicle maintenance to minimize the need for regularly scheduled maintenance during a pandemic, when loss of maintenance workers is anticipated.

6. People who depend on meal sites for proper nutrition are extremely vulnerable to closures. They include people of very low income, especially people who are homeless and people with disabilities who live alone.

Suggested strategies:

- **COOP Plans:** Assure the development of Continuity-of-Operations plans for all meal sites.
- **Take-Out Meals:** Substitute take-out meals for sit-down meals to simplify preparation, distribution, and clean-up, and to minimize client-to-client contact.

7. People who depend on home *nutrition* services such as Meals on Wheels for proper nutrition are extremely vulnerable to delays in service or the loss of service. They include the homebound, most of whom are very frail elders.

Suggested strategies:

- **COOP Plans:** Assure the development of Continuity-of-Operations plans for all home nutrition services.
- **Two-Day Packages:** Develop two-day nutrition packages. Split clients into two groups, one to receive meals on Monday, Wednesday, and Friday, the other to receive meals on Tuesday, Thursday, and Saturday (or according to a similar "split" schedule).
- **Mini-Stockpiles:** Develop and distribute three-day mini-stockpiles of preserved, minimal-preparation meals for use during service disruptions.

8. People who depend on home *health* services are vulnerable (some extremely vulnerable) to delays in service or loss of service, and may require transfer to skilled nursing facilities. They include the chronically ill homebound, most of whom are very frail elders, and people recovering from surgical procedures, many of whom are elderly.

Suggested strategies:

- **COOP Plans:** Assure the development of Continuity-of-Operations plans for all home health services.
- **Alternate Care:** To offset staff attrition, cut the average number of visits per client by developing alternate care plans for *selected* clients, incorporating "family" caregivers (family members or friends), just-in-time training and printed instructions for simple home-care procedures, customized supply kits, and telephone consultations. Objective: Cut the average number of visits per client to offset staff attrition.

9. People who reside in group homes are vulnerable to staff attrition, and may require transfer to larger group facilities with reduced staff-to-client ratios. They include people who are developmentally delayed and people with chronic mental disabilities.

Suggested strategies:

- **COOP Plans:** Assure the development of Continuity-of-Operations plans for all group homes.

C. Populations Vulnerable to Loss of Work or Business Income

1. Working people of low income who have no credit and working people of varying income who have very high debt are extremely vulnerable to loss of income from layoffs, thus loss of heat, electricity, telephone, housing, and proper nutrition.

Suggested strategies:

- **Moratoriums on Mortgage and Utilities Payments:** Develop a unified state system to grant temporary suspensions of mortgage and utilities payments for those who can demonstrate financial need. Utilities to be covered would include piped, municipal gas (vs. bottled gas), electricity, and local telephone service.
- **Subsidies for Rent, Heating Oil, and Bottled Gas:** Unify and expand existing programs to subsidize rent, heating oil, and bottled gas for those who can demonstrate financial need.
- **Expanded Food Bank:** Unify and expand the existing food bank system. Modify the system to make it less dependent on private donations of food (which may decrease during an influenza pandemic), and to make it resistant to disruptions in food delivery from other sources.

2. Many small business owners are vulnerable to loss of business income. They include those whose businesses are deeply in debt (including most new businesses), those with low profit margins (e.g. those requiring high foot traffic).

Suggested strategies:

- **Small Business "Bridge" Loans:** Develop a state system for small business loans, based on need, to offset temporary losses of business income during an influenza pandemic.

IV. Assignment to ESF-8 for Planning

In conjunction with other Departments of Rhode Island State Government, the Rhode Island Department of Health is discussing the assignment of planning responsibilities to address the vulnerabilities of special populations during an influenza crisis. Thus far, the needs of the special populations listed below (with accompanying planning strategies) have been recognized as ESF-8 responsibilities. Health and its regional planning partners (ten acute care hospitals) will work with local leaders and experts to customize services and to elicit local commitment to planning and implementation.

A. Populations Vulnerable to Infectious Illness

1. People of limited English proficiency and people who do not use the major news media

Planning strategy:

→ Evaluate the adequacy of the *ESF-8 Public Information Plan for Pandemic Influenza* to address this vulnerability.
→ Modify, as necessary, working with local communities, to build alternate channels for the transmission of public information to vulnerable populations.

B. Populations Vulnerable to Disruption in Regular Services

1. People who depend on urgent or emergency care facilities for primary health care

Planning strategy:

→ Build into pandemic influenza plans to be developed with acute care hospitals in ten health care service regions

2. People who depend on frequent appointments for medical care

Planning strategy:

→ Build into pandemic influenza plans to be developed with acute care hospitals in ten health care service regions

3. People who require frequent refills of prescription drugs

Planning strategy:

→ Develop an ESF-8 plan to maintain the integrity of basic pharmacy services during an influenza pandemic.

Attachment F

Pandemic Influenza Public Information Plan

1. Health Public Information Officer (Health-PIO)

The HEALTH-PIO reports to the Incident Commander, serves as the lead public information official, serves as spokesperson for the RI Department of Health (HEALTH) and communicates with the public, media and other agencies concerning general information about the incident or event. The PIO assigns/manages other public information staff and assures that all public information is timely, accurate, consistent and credible throughout the response organization. All public information must be cleared through the PIO and approved by the IC prior to public dissemination. If the state activates a Joint Information Center (JIC) the HEALTH PIO joins as the representative from the HEALTH.

2. Public information staff

Organization: Reports to the Incident Commander

	Suggested Staffing Needs
• Public Information Officer (PIO)	3.0 FTE
• Communications Coordinator	3.0 FTE
• Planning and Evaluation Coordinator	3.0 FTE
• Writer	3.0 FTE
• HEALTH Webmaster	3.0 FTE
• Liaison for Community/Legislature	3.0 FTE
• Diversity Communicator	3.0 FTE
• Media Watch Team	3.0 FTE
• Manager: Emergency Information Line (EIL)	3.0 FTE
• Administrative Assistant	3.0 FTE
• Emergency Information Specialists	6 – 100 FTE
• Shifts:	8 – 12 hours shifts with weekend coverage if necessary
• Replacements:	From HEALTH and other state communications staff
• Training Needs:	Just-in-time training for EIL operators

Public Information Actions by Pandemic Phase

Current Activities

Major Operational Control Activities:

Surveillance and testing
Estimate need for healthcare services
Investigate outbreaks and clusters

Stage of Public Information Plan:
Normal

Public Information Strategies, Activities and Key Messages

Strategies	Activities	Messages
Launch statewide plan	News conference/kick-off Technical conference call with media Media kit Meeting with state agency PIOs	State preparedness and future plans
Low-key public information response for the general public	Radio/TV talk shows/call-in shows Advise marketing strategies with stake holders through key liaisons	What is the status of pandemic flu? What state is doing to prepare? Here is what you can do Possibility of vaccine Possibility of Antivirals
Develop a Special Communications Populations public education strategy	Meetings with CBOs and community leaders Build Special Communications Populations Network Radio messages Flyer (translated) CBO newsletters Post on web site	Update messages as needed

Interpandemic Period
Phase 1 and 2

Major Operational Control Activities:

- Alert medical community, emergency physicians.
- Enhanced passive surveillance, laboratory testing (viral subtypes.)
- Enhanced veterinary surveillance.
- Review MEDS plan and priorities.
- Recommend target groups.
- Review/modify/response plan.
- Explore additional avenues for supplies and services.

Stage of Public Information Plan:
- ***Escalating***

Public Information Strategies, Activities and Key Messages

Strategies	Activities	Messages
Implement Emergency PI Plan	Prepare/review FAQs Prepare/review material to be posted on website	What is the status of pandemic flu? What state is doing to prepare? How to take care of yourself and your family Possibility of vaccine Possibility of antivirals Tips for travel Q&A for first responders National/international preparation Message about flu and local animals
Monitor FHIL Put EIL on standby Put translations services on alert	Re-identify, check scattered UCD lines Prepare quarantine and isolation information if protocols are passed	Message for talk shows—"X" has happened. How this affects us. Update messages as needed

Increase Public Awareness through media and other available channels in the community	Update Web site Update talking points Increase appearances on talk shows Update technical briefing with editors and news directors Step up communication with community leaders and Special Communications Populations Network If sufficient information is available, prepare 1 minute audio tapes in other languages	Update media periodically, respond to media inquiries Update Web site as needed Update messages as needed

Pandemic Alert Period
Phase 3, 4, and 5

Major Operational Control Activities:

- Activate enhanced surveillance.
- Increase lab surveillance.
- Initiate school, pediatric, hospital surveillance (ILI visits.)
- Monitor emergency departments and pharmacies.
- Conduct off-season outbreak investigations.
- Activate MEDS plan, as vaccine becomes available.

Stage of Public Information Plan:

- ***Activation***
- ***Notification***

Public Information Strategies, Activities and Key Messages

Strategies	Activities	Messages
Activate expanded flu website	Post prepared pages Update messages	What is the status of pandemic flu? What is the state doing to prepare? How to take care of yourself and your family Possibility of vaccine Possibility of antivirals Tips for travel Q&A for first responders National/international preparation Message about flu and local animals Possibility of quarantine/isolation
Monitor FHIL and prepare to expand to EIL.	Prepare "Health Policy Forum" for EIL Prepare auditorium and library, or alternative media site to host media	Update messages as needed
Distribute multi-lingual materials on pandemic flu	Send audio tapes to radio stations and update messages on Web site in as many formats as possible.	Update messages as needed
Update technical briefing Hold first media conference	Continuity of Operations briefing for RI media Update briefing for state agency PIOs Update briefing for private sector PIOs Download material and copy for media kit Press release FAQs	Update messages as needed

	Fact sheet Photos if available Activate Hospital PIO Health Alert Network Activate Municipal CEO Health Alert Network Activate feedback system Activate media watch	
Activate Special Communications Populations Network Activate translations	Send talking points, fact sheet and FAQ to agencies in network Send audio tapes to radio stations	
Other activities (depending on availability of medication or vaccine)	Activate Medical Emergency Distribution System public information plan /Pre-delivery phase	

Pandemic Period
Phase 6

Major Operational Control Activities:

- Fully activate anti-viral plan and MEDS Plan, as vaccine continues to become available.
- Enhance hospital surveillance (ILI hospitalizations and deaths).
- Coordinate with neighboring states.
- Interface with federal and national agencies.
- Shift from surveillance to defining the pandemic, identifying sources/target group.
- Receive and distribute antivirals, monitor adverse reactions.
- Monitor immunization coverage rates.
- Study vaccine/antiviral efficacy.

Stage of Public Information Plan:

- ***Emergency***
- ***Crisis***
- ***(Could revert to Activation/Notification)***

Public Information Strategies, Activities and Key Messages

Strategies	Activities	Messages
Join Joint Information Center (JIC) if state Emergency Operations Center and JIC are activated; establish e-mail mini-JIC (hospitals, active state agencies, municipalities) if state JIC is not fully activated. Issue updates as needed	Adjust staff for JIC Messages should be kept short to be included in JIC media releases Devise and keep a schedule of media conferences; prepare handouts Periodically update talking points, FAQs Consider Medical Examiner's Web site with names of deceased (if not a HIPAA violation based on conditions at the time). Open EIL; frequently update FAQs and talking points	What is the status of pandemic flu? What state is doing to prepare? Here is what you can do / Prevention Tips on Self-care/ Home care Status of vaccine production Availability of antivirals What do to if someone has flu symptoms What to do if someone has another healthcare emergency Changes in healthcare provision Messages on alternative healthcare sites Child care tips What to expect if a loved one dies during a pandemic Travel Tourism School /Work Availability of basic supplies National/international preparation Update on flu and local animals Possibility of quarantine/ isolation Possibility of a second wave
Activate MEDS PI plan if distribution centers are open	If antivirals or vaccine are widely available, activate MEDS public information plan	Update messages as needed
Feedback	Continue feedback system and media watch	Update messages as needed
Continue Special Communications Populations Network for health issues	Continue translations and delivery. Post PDF files on Ch 36	Update messages as needed

Post-Pandemic
Phase 6

Major Operational Control Activities:

- Review death certificates and hospital admissions (ILI, pneumonia, influenza)
- Conduct retrospective and validation studies

Stage of Public Information Plan:

- ***Stepping Back***
- ***New Normal***

Public Information Strategies, Activities and Key Messages

Strategies	Activities	Messages
Review and evaluate feedback	Organize and review all feedback	Update messages as needed
Review PI Emergency Plan and adjust Establish information source(s) for people who may have long-term recovery issues	Revise website to reflect new status. Updates through media and community network	Long- term patient recovery messages Continue list of the deceased on website for a few months (if not a HIPAA violation) Post tourism and travel advisories Healthcare advisories as system recovers.
Make maintenance information available	Produce new "prepared" messages for other outbreaks based on experience Update Web site, resource list	Update messages as needed
Hotwash	Meet with staff to discuss lessons learned. Record lessons learned and incorporate into future planning.	
Back to Interpandemic Stage		

Do a "hot wash" with all personnel who worked in the section immediately post-pandemic. Record the observations, opinions, and suggestions of all personnel and contribute to the After Action Report.

Attachment G

ESF 8
APPENDIX VIII of State EOP

APPENDIX VIII: EMERGENCY SUPPORT FUNCTION 8 – PUBLIC HEALTH AND MEDICAL SERVICES

Primary Agency: Department of Health

State Agency Support: Department of Human Services
Department of Environmental Management
Department of Mental Health, Retardation and Hospitals
Department of Elderly Affairs
Department of Education
National Guard
State Police
E-911Emergency Telephone System
RI Emergency Management Agency

Private Support Hospital Association of RI
RI Blood Center
Hospitals, Clinics, Nursing Facilities, Medical Providers, EMS

Volunteer Support: American Red Cross of RI
RI Disaster Medical Assistance Team
RI Medical Reserve Corps
Salvation Army
Volunteer Center of RI

Federal Counterpart: US Department of Health and Human Services
US Department of Homeland Security

I. INTRODUCTION.

This appendix provides guidance to Federal, State, Local and private agencies in regards to the planning and operation of public health and medical services in the State of Rhode Island during an emergency or special event. The intent is to provide the appropriate guidance and to organize functions across all levels.

II. CONCEPT OF OPERATIONS

A. General

1. Situation

a. Almost no federal assets are immediately available locally. While numerous assets are available throughout the country, these will take time to mobilize and deploy to Rhode Island. In general, Rhode Island will need to react over the first 24 or 48 hours with limited outside support.

b. A coordinated terrorist attack or natural disease outbreak may include multiple sites throughout the US. Limited federal resources may be drawn in several directions and state resources may be activated for employment in other jurisdiction.

c. Local medical systems have only limited surge capacity and cannot handle large numbers of new patients. The limiting factors are personnel, space and equipment.

d. Local medical supplies and drugs are available in limited supply for immediate response, however key vaccines are not available.

2. Assumptions

a. For any emergency, state and local government will remain viable and while probably overwhelmed, will continue to have the responsibility and capability to provide the leadership for their domain.

b. Any regional event would likely spill over into neighboring areas requiring a mobilization in RI. Any event nation-wide would likewise have implications for Rhode Island.

c. The Rhode Island population will perceive any national or regional bioterrorism event as a crisis and may cause panic, requiring an immediate and authoritative public health information response.

3. General Concepts

a. The Department of Health (HEALTH) is responsible for all ESF #8 activities and will provide the appropriate guidance and leadership to fulfill this responsibility.

b. ESF #8 functions will integrate into the State Emergency Operations planning and Emergency Operations System as managed by the State Emergency Management Agency.

c. The adopted system within RI for managing emergency events is the Incident Command System and associated derivations (such as the Hospital Emergency Incident Command System – HEICS). This fact will be reflected in ESF #8 planning and operations.

4. Response Levels.

There are two main levels of response for public health crises. At the first level, the local authorities and/or HEALTH respond even if the situation affects many communities. At the second level, the situation rises to a statewide emergency requiring the mobilization of multiple state assets. By definition, the second level occurs when authorities activate the State Emergency Operations Center (EOC). At both levels, HEALTH manages the medical/public health response, including media relations regarding public health issues. At the second level, RIEMA manages statewide issues and efforts in support of the public health response.

B. Organization

1. Planning.

HEALTH will organize all medical and public health entities into a comprehensive network to conduct ESF#8 planning. This network consists of a pyramid series of committees and work groups that incorporate all appropriate entities across the state. The intent is to reach all necessary partners and to provide a structure to handle issues at the appropriate level, while creating an integrated communications network to link all pieces with the whole.

2. Emergency Operations.

HEALTH is responsible for establishing an ESF #8 desk as part of the State Emergency Operations Center. This desk and the command functions at HEALTH will establish an appropriate system to communicate with the entire health system as necessary to receive information, provide information and provide guidance.

C. Notification

HEALTH maintains a 24x7 notification capability through its on call system. Through this system, HEALTH may be contacted and alerted regarding any issues. Specific offices maintain their own

off-duty contact systems as they are routinely contacted to respond to issues at all hours. Within HEALTH there are alert systems to contact everyone if necessary. HEALTH will in turn maintain the capability to contact all appropriate partners and will establish a system to maintain contact during an emergency. There is an ESF #8 phone book, maintained at HEALTH, with all critical contact information across the state.

D. Actions

Actions carried out by ESF 8 are grouped into the four phases of emergency management: preparedness, response, recovery, and mitigation. Each phase requires specific skills and knowledge to accomplish and requires significant cooperation and collaboration between all supporting agencies and the intended recipients of service. This Emergency Support Function encompasses a full range of activities from education to the provision of field services. It also functions as a coordinator and, at times, assumes direct operational control of provided services.

1. The following services provide the framework upon which actions will occur:

a. Management, command and control of assets

b. Assessment of health and medical needs

c. Disease control/epidemiology

d. Licensing and management of health/medical care personnel

e. Public health information

f. Communications with the professional community

g. Health/medical equipment and supplies including mass dispensing operations

h. Patient evacuation, movement and transportation

i. Coordinated facility care of patients (hospital, nursing home and others)

j. Food, water and drug safety

k. Emergency responder health and safety

l. Victim identification/mortuary services

m. Emergency Medical Services (pre-hospital)

2. Preparedness

a. Conduct training, orientation, and exercises for all Emergency Support Function 8 personnel (i.e., state, municipal and private). As possible, integrate ESF #8 needs into other training activities and exercises.

b. Support assessments of all health/medical needs and systems across the state.

d. Establish health surveillance systems to detect important health events in the state.

e. As a result of building capabilities and systems, develop plans to reflect these capabilities and systems throughout the state.

f. Establish the system for identifying and using medical volunteers and volunteer organizations during emergencies.

g. Develop systems to be able to access emergency health/medical equipment and supplies.

h. Develop patient evacuation and management systems.

i. Develop systems for managing patient care across the state during large events.

j. As possible use day-to-day public health and medical systems to prepare for emergency events. Integrate emergency planning needs into routine activities such as food, water, and facility safety issues.

k. Develop emergency public health and professional communications systems.

l. Coordinate with all possible partners to develop appropriate plans. This includes planning for specific types of facilities (schools, government buildings, offices, etc…). Provide technical assistance for building safety plans and environmental health issues.

m. Develop the Laboratory Response Network as it applies to RI activities.

3. Response

a. Coordinate operations at the ESF # 8 desk in the State Emergency Operations Center. As needed, operate the Department of Health Emergency Operations Center.

b. Conduct field assessments and surveys. Conduct rapid assessments for immediate response objectives. Determine needs for health surveillance programs in communities and regions.

c. Arrange for the provision of medical personnel, equipment, and supplies as needed to health and medical facilities. As necessary activate the State Medical Emergency Distribution System plan to provide medical supplies (drugs/vaccines) to the population.

d. As needed, assist in the movement of patients and the identification of alternate care sites. Identify hospital and nursing home bed vacancies statewide.

e. Assist in hazardous materials response through consultation, technical support or staff deployment.

f. Monitor the health and safety of all responders and the population in general. Provide guidance and direction as appropriate.

g. Activate public information and professional communications systems.

h. As necessary for the emergency, activate specific HEALTH divisions or offices and/or other functions.

4. Recovery

a. Maintain operations as needed at the State EOC and HEALTH EOC.

b. As appropriate, maintain assessments to monitor the situation.

c. As possible, restore operations of health and medical functions to normal levels. Restore essential health and medical components of delivery systems, permanent medical facilities to operational status and; restore pharmacy services to operational status.

d. Identify populations requiring event-driven health, medical or social services post-event. Develop and provide services as needed.

e. Initiate financial reimbursement process for support services. Initiate grants for all applicable services.

5. Mitigation

a. Support vaccination programs to maximize the population's protection against all diseases.

b. Support stockpiling activities for medical supplies and drugs.

c. Encourage and support physical upgrades to facilities and buildings to prevent or minimize the impact of contaminants or disease.

III. DIRECTION AND CONTROL

As a situation transitions from a level I (Department of Health lead) to a level II (State EOC lead) public health crisis, a smooth transfer of command and control will be critical. Integration of all local, state, federal, public and private assets for a public health emergency will be critical. For consequence management issues state agencies will be the lead and will provide leadership for all other response agencies. HEALTH is the lead for health issues or the health aspects of other emergencies.

IV. RESPONSIBILITIES

A. Primary Agency - Department of Health

1. Operate the Health Alert Network 24x7 in order to facilitate rapid emergency public health and medical communications between all interested parties – including feedback communications regarding the status of public health interventions. This includes public health communications between HEALTH and health professionals, federal, state, local and private partners, the media, the public and the emergency response community. Integrate this

system as appropriate with a statewide Joint Information Bureau or other establishment.

2. Establish a medical surveillance system to rapidly detect possible public health events. This system should incorporate all possible groups such as medical facilities, providers, schools, pharmacies, veterinarians, food and drinking water facilities. For selected special activities in the state, be prepared to establish special focused systems.

3. Serve as the lead state agency on public health information to inform health professionals, emergency responders, organizational partners and the public regarding the health and medical issues (including panic prevention) involved in the response to events. Responsibilities for information channels include telecommunications, public information hotlines, commercial media relations, internet, informational meetings and other methods.

4. Integrate the need to deal with special populations during health emergencies.

5. Provide technical guidance on disease control, treatment, prophylaxis, disinfection, and medical waste management (in conjunction with DEM) to the professional medical community and other responders around the state. Recommend to the Governor emergency health control measures.

6. Conduct the epidemiological investigation of any incident. Integrate law enforcement requirements into the epidemiological investigation by coordinating resources and sharing findings.

7. Plan for the deployment and use of the Strategic National Stockpile and all other emergency medical supply systems available to the state.

8. Serve as the lead state asset for laboratory issues and disease agent analysis. Provide assistance and advice to labs throughout the state. Conduct laboratory testing of human and environmental samples, and/or arrange for testing at CDC, USAMRIID, etc. Develop a statewide-integrated system for laboratory activities.

9. Implement the Medical Examiner's plan to handle mass fatalities. Provide guidance on handling contaminated corpses.

10. Manage statewide systems for medical facility planning and response to emergencies. Monitor health facilities' emergency

operations and infectious/medical waste management. Authorize changes to operating procedures and provide appropriate regulatory guidance for use during an event. Develop those systems necessary to effectively organize the response from medical facilities during disasters.

11. Create appropriate medical emergency response protocols for use by the EMS community.

12. Create plans for the utilization of medical and public health professionals as needed. This includes the use of volunteers, federal workers, and assistance from other states. Include in these plans management systems, licensing and credentialing procedures.

13. Serve as the lead state agency for the education and training related to the public health aspects of bioterrorism.

14. Ensure routine public health programs have appropriate emergency response plans and systems in place to deal with issues within their areas of interest.

15. Ensure that patient evacuation and movement systems are in place throughout the state and with other partners (federal partners and neighboring states). Coordinate with the local National Disaster Medical System (NDMS), Federal Coordinating Center (FCC), (Newport Naval Base Ambulatory Care Center) concerning their patient evacuation planning.

B. Support Agencies

1. Department of Human Services

   a. As needed, provide support services for the population and for individuals affected by the emergency.

   b. Develop plans to respond during emergencies and especially to provide assistance to special populations.

2. Department of Environmental Management

   a. Lead agent for veterinary issues in the state.

   b. Lead for activities which may involve insect vectors and issues.

   c. Lead office for HAZMAT issues and safe entry criteria following HAZMAT events.

3. Department of Mental Health Retardation and Hospitals

   a. Lead state agency for behavioral health services in any disaster. Prepare and execute plans to deal with the mental health consequences of any event.

   b. Plan to utilize all available physical assets to support the statewide response to any event. As necessary, reconfigure physical assets to accommodate overflow of sick patients from other facilities.

   c. Act in an advisory capacity to the department on public panic issues resulting from any event.

4. Department of Elderly Affairs

   a. Prepare plans to service and reach out to elderly populations to support their special needs during public health crises.

5. Department of Education

   a. Provide guidance and assist school nurses and health centers in preparing for health crises.

6. National Guard

   a. Develop plans to provide for the medical needs of mobilized National Guard personnel (for state service). Specifically be prepared to distribute medications or provide vaccinations for any activated National Guard personnel and for the State Emergency Management Agency.

   b. As available, be prepared to provide medical assistance to the civilian population of Rhode Island.

   c. .Be prepared to provide miscellaneous support services during any large emergency.

7. State Police

   a. Be prepared to manage a statewide security system to protect critical assets such as pharmacies, hospitals, other medical facilities, and governmental offices.

   b. Be prepared to provide secure escort for the movement of critical

items/samples, including both environmental samples and clinical specimens/isolates around the state.

8. E-911 Emergency Telephone System

   a. Ensure that appropriate procedures are in place to refer calls indicating a possible public health event.

   b. Prepare plans to manage the calls associated with a massive disease outbreak.

9. RI Emergency Management Agency

   a. Plan for and prepare to operate the EOC modified for a public health emergency. For the situation when the emergency has been elevated to state level (EOC activated), implement a state-wide Incident Command System (ICS) incorporating all state, private, and federal resources which may be responding.

   b. Provide support, as needed for the planning and implementation of ESF 8 response plans. In particular assist with the logistical planning for programs such as the Medical Emergency Distribution System.

   c. Lead agency for the state mass casualty incident (MCI) plan and the rapid response activities required for an event in the state.

10. Hospital Association of RI

    a. Assist HEALTH in developing emergency plans and otherwise better preparing the medical system throughout the state.

    b. During emergencies, provide back-up support to HEALTH in managing health issues and communicating with various health offices in the state.

11. RI Blood Center

    a. Plan for and operate the systems to maintain the RI blood supply during emergencies.

    b. Lead agency to coordinate internal and external blood supply issues.

12. Hospitals

    a. Participate in the statewide surveillance systems.

    b. Have plans in place to maximize bed spaces and to establish alternate facilities as necessary in order to expand the number of bed spaces available.

    c. Be prepared to handle a massive influx of concerned personnel seeking medical advice and treatment.

    d. Participate in initiatives from the Hospital Association of Rhode Island (HARI) and Department of Health in order to develop linked hospital emergency plans throughout the state. Participate in the Hospital Preparedness Planning Committee.

    e. Coordinate area-wide emergency health planning with local agencies such as city/town governments and Local Emergency Planning Committees (LEPCs).

    f. Be prepared to diagnose and treat for the most common BT agents, chemicals, and toxins.

    g. Have prepared plans to integrate with the State Medical Emergency Distribution System (MEDS), receive emergency medical supplies, and conduct dispensing operations for staff, families and patients.

13. Clinics (Free standing and walk-in emergency clinics)

    a. Participate in the statewide surveillance systems. Per the regulations for reporting of diseases, monitor for the named diseases and report immediately any indicated disease agent.

    b. Be prepared to handle a massive influx of concerned personnel seeking medical advice and treatment.

    c. Coordinate with neighboring hospitals and with community leadership in order to integrate assets into other plans and needs.

    d. Have prepared plans to integrate with the State Medical Emergency Distribution System (MEDS), receive emergency medical supplies, and conduct dispensing operations for staff, families and patients.

14. Skilled Nursing Facilities

    a. As necessary, maximize the number of available bed spaces in order to take overflow from other facilities if necessary.

    b. Implement appropriate infection control procedures to minimize spread of disease within the facility.

    c. Participate with the local municipal government for the activation of the Medical Emergency Distribution System (MEDS). Have a plan for the dispensing of emergency medicines and/or vaccines to patients and staff.

15. Medical Providers

    a. Participate in the statewide surveillance system by monitoring for reportable diseases.

    b. Be prepared to instantly begin personal protection measures in the event of an alert for a dangerous agent. Be prepared to heighten infection control procedures in order to prevent the spread of disease.

    c. Coordinate with HEALTH in order to provide patient information and treatment as appropriate.

16. EMS Services and Providers

    a. Activate appropriate universal body precautions for field personnel.

17. Water Treatment Facilities and Water Resource Boards

    a. As necessary activate emergency systems to protect and monitor water supplies.

18. Waste Management Facilities

    a. Activate emergency systems to protect workers and to identify possibly contaminated materials.

19. Schools

    a. Activate emergency surveillance systems as necessary to monitor disease outbreaks.

b. Activate emergency systems to control the spread of disease.

c. As necessary, utilize facilities to serve as emergency facility or clinic sites.

20. American Red Cross of RI

a. As necessary, open and operate emergency shelters.

b. As available, provide personnel and equipment to support other ESF #8 functions such as hospital activities, patient movement and emergency dispensing functions.

21. RI Disaster Medical Assistance Team

a. Per the MOU with RIEMA be prepared to activate for state service.

b. Operate the Medical Reserve Corps for the State.

22. RI Medical Reserve Corps

a. Recruit and train pools of medical professionals interested in volunteer emergency service in the State.

b. During emergencies, respond to requests for medical personnel. Operate a system for the emergency registration and use of medical volunteers (not previously registered).

23. Volunteer Center of RI

a. Assist in the recruitment of medical professional for the Medical Reserve Corps.

b. During emergencies, assist in the emergency registration and use of medical volunteers (not previously registered).

24. Regional Federal Organizations

a. Maintain liaison, conduct appropriate training, coordinate plans and integrate federal resources for planning and response with HEALTH.

25. Newport Ambulatory Care Center

    a. Serve as the local Federal Coordinating Center (FCC) for the National Disaster Medical System (NDMS) emergency patient movement system. Maintain the regional plan for moving patients out of or into the RI area during emergencies. In an emergency, operate this system.

    b. As part of FCC activation, establish liaison with HEALTH or State EOC.

26. Providence Veterans Administration Medical Center

    a. In a federally declared medical disaster, as requested, provide the system for ordering, receiving and distributing federally sourced medical supplies (not including the Strategic National Stockpile).

    b. Participate fully in local emergency medical planning.

27. State Organizations

    a. As appropriate, maintain an awareness of possible health events. Report immediately any suspicious activities (participate in the statewide surveillance efforts).

    b. As part of local risk assessments for facilities and personnel, include bioterrorism and emergency medical issues.

28. Local Organizations and Offices (Below state level)

    a. As appropriate, integrate health issues into local emergency plans. In particular, coordinate planning into special events.

    b. Maintain contact with HEALTH and local/state EOCs as appropriate.

29. City/Town Government

    a. Designate an individual to be the lead coordinator for medical emergency issues. Ensure coordination and communications systems with HEALTH and state EOC are in place.

    b. Per the State Medical Emergency Distribution System (MEDS), plan be prepared to establish dispensing systems for emergency medical supplies.

V. FINANCIAL MANAGEMENT.

A. All agencies are responsible for managing finances for their own operations.

B. All agencies will immediately record costs associated with any emergency activation.

VI. REFERENCES AND AUTHORITIES.

A. R.I.G.L Chapter 30-15, Emergency Management Act

B. National Response Plan (Draft) U.S. Dept of Homeland Security

C. National Disaster Medical System (NDMS) Operations Plan, 14 April 1997, US Naval Clinic, Newport. (For Federal Coordinating Center activation in Rhode Island).

D. RI Emergency Support Function 8

E. Emergency Support Function 8 Reference Guide

F. RI MEDS Plan

G. RI Flu Pandemic Plan

H. RI Smallpox Planning and Response Plan

I. RI Medical Reserve Corps Plan

J. Mass Casualty Plan

Attachment H

Resources
Telephone Contact Numbers

AGENCY	TELEPHONE NUMBER	ESF
Office of the Governor	401-222-2080	
Attorney General	401-274-4400	
CDC Response Center	770-488-7100	
Office of Emergency Response DHHS	800-872-6367 301-443-1167 x2	
Emergency Management Agency (RIEMA)	401-946-9996	Lead Agency ESF 2,5,6,7,9,11,17
BEHAVIORAL HEALTH		ESF 15
Department of Children, Youth, & Families	401-254-7000	
MHRH	401-462-3201 401-462-3333 (after hrs)	
Substance Abuse & Mental Health Services		
Emergency Mental Health & Traumatic Stress		
HEALTH & MEDICAL SERVICES		ESF 8
HEALTH -Division of Disease Control & Prevention	401-222-2577	Lead Agency for ESF 8
Center for Biodefense and Emerging Pathogens (CBEP)	401-729-3857	
E-911 Emergency Telephone System	401-354-0911	
Hospital Association of RI (HARI)	401-946-7887	
Hospitals		
Bradley Hospital	401-432-1000	
Butler Hospital	401-226-1859	
Eleanor Slater Hospital	401-462-3085	
Hasbro Children's	401-444-4900	
Kent County Memorial Hospital	401- 737-7000	
Landmark Medical Center	401-769-4100	
Memorial Hospital	401-729-2000	
Miriam Hospital	401-793-4111	
Newport Hospital	401- 846-6400	
Rehabilitation Hospital of RI	401-766-0800	
Rhode Island Hospital	401-444-5353	
Roger Williams Medical Center	401-456-2000	

St. Joseph Health Services of RI	401-456-3000	
South County Hospital	401-782-8000	
VA Medical Center	401-273-7100	
Westerly Hospital	401-596-6000	
Women & Infants Hospital	401-274-1100	
Narragansett Indian Health Center	401-364-1270	
Newport Naval Ambulatory Center	401-841-3771	
Poison Control Center (back line)	1-617-355-6609 1-800-2221222 (public)	
RI Department of Human Services	401-462-2121 401-222-7000 -Providence	Jane Haywood Providence
RI Blood Center	800-283-8385	
RI Disaster Medical Assistance Team (RI-1 DMAT)	401-615-9151 401-444-7744 (emerg. contact)	
Rhode Island Health Center Association	401-274-1771	
RI Medical Reserve Corps	401-444-7744 401-639-4960	
RI Public Health Association	401-863-9858 ripha.org	
Salvation Army	401-846-3234 –Newport 401-421-0956 –Prov Office	
RI Citizens Corps	401- 228-8000	PEMA
US Department of Health and Human Services	202-619-0257 Toll Free: 1-877-696-6775	
Volunteer Center of RI	401- 421-6547	
Security/Law Enforcement		ESF 13
Bureau of Alcohol, Tobacco, & Firearms (BATF) -bomb issues	888-283-2662	
Capitol Police	401-222-3077/6905 Pager: 401-581-0016	
FBI Boston	617-742-5533	
FBI Providence	401-272-8310	
RI Environmental Police (DEM)	401-222-3070	
RI Sheriff's Department	401-222-3510 401-822-1763 401-841-8300 401-782-4100	Providence Kent County Newport County Washington County
RI State Police	401-444-1111	
TRANSPORTATION		ESF 1
***RI Department of Transportation (RIDOT)**	401-222-2378	Lead Agency for ESF 1, 3

AGENCY	TELEPHONE NUMBER	ESF
PUBLIC WORKS & ENGINEERING		ESF 3
RI Public Transit Authority (RIPTA)	401-781-9400	
RI Turnpike and Bridge Authority	401-423-0800	
Narragansett Bay Commission (NBC)	Phone: 401-461-8848 Fax: 401-461-6540	
Department of Labor and Training (DOL)	410- 462-8000	
Department of Corrections (DOC)	401- 462-1000	
RI Civil Air Patrol	401-737-8490	
US Coast Guard	401-846-3675 401-253-9585	
US Department of Transportation	Call Coast Guard	Coast Guard
COMMUNICATIONS		ESF 2
Amateur Radio Operators (RACES/ARES)		
National Communications System	703-235-5516	
Public Utilities Commission	401-941-4500	
INFORMATION & PLANNING		ESF 5
URI Environmental Data Center	401-874-5054	
MASS CARE		ESF 6
Department of Education	401-222-4600	
Economic Development Corporation		
Marriott/Sodexho	800-228-9290 401-272-2400 (Prov)	
Sysco	(508) 285 - 1000	
Szabo		
AraMark	401-732-3566 401-738-1900	
RI Realtors Association		
American Radio Relay League of RI	401-401-9156 –Ocean State 401-642-5054 –Narragansett Bay	
National American Red Cross	202- 303-4498	
American Red Cross of RI	800-842-1122 401-831-7700	
US Department of Agriculture (USDA) Crisis Planning & Management Information Response Team (8:30-5 pm) Local	877-617-7857 202-720-2791 401-828-1300	
RESOURCE SUPPORT		ESF 7
Department of Administration (DOA)	401-222-3032	

AGENCY	TELEPHONE NUMBER	ESF
Office of Library & Information Services (DOA)	401-222-4444	
University of Rhode Island (URI)	401-874-2433	
Rhode Island College	401-456-8000	
Department of Business Regulation	401-222-6098	
Department of Elderly Affairs	401-462-3000 401-462-0555	
Department of Education	401-222-4600	
Department of Homeland Security	202-282-8000	
FEMA	202-566-1600	
General Services Administration	800-333-4636	
FOOD & WATER		ESF 11
VOLUNTEER & DONATIONS		ESF 17
Rhode Island Volunteer Organizations Active & Disasters (VOAD)	401- 421-0956	Salvation Army
United Way	401- 444-0600	
Federal Emergency Mgmt. Agency (FEMA)	202-566-1600	
Corporation for National Community Service	202- 606-5000	
FIREFIGHTING		ESF 4
RI Association of Fire Chiefs		
Bureau of Alcohol, Tobacco, Firearms, & Explosives	888-283-2662	
FBI Providence	401-272-8310	
Fire Marshall	401-294-0861 after hrs 222-2331	
HAZARDOUS MATERIALS		ESF 10
ATSDR (chemical issues)	404-498-0120	
CBEP	401-729-3857	
WMD Civil Support Team	401-392-0820	Obtain through RIEMA
Historical Preservation & Heritage Commission	401-222-2968	
Narragansett Indian Tribal Historical Preservation	401-364-1100	
RI Resource Recovery Corporation	401-942-1430	
Providence & Worcester Railroad	508-755-4000	
Nuclear Regulatory Commission	610-337-5330 800-368-5642	Region 1 Head quarters
Environmental Protection Agency	888 - 372-7341	
USAMRIID (Bio advice)	888-872-7443	
ANIMAL CARE		ESF 16
Division of Agriculture (DEM)	401-222-3070	

AGENCY	TELEPHONE NUMBER	ESF
Division of Fish & Wildlife (DEM)	401-222-3070	
Audubon Society of RI	401- 949-5454	
Roger Williams Park Zoo	401-785-3510	
Lincoln Park	401-723-3200	
Rhode Island Farm Bureau	401- 647-3570	
Rhode Island Veterinary Medical Association	877- 521-0103	
American Veterinary Medical Foundation (VMAT)	Contact through RIEMA	
Providence Animal Rescue League	401-421-1399	
Potter League for Animals	401-846-8276	
RI Society for Prevention of Cruelty to Animals	401- 438-8150	
RI Federation of Sportsmen's Clubs, Inc	401-568-3185 401-377-2566	
RI Wildlife Rehabilitators Association of RI	401- 294-6363	
Save the Bay	401-324-6020	
RI Disaster Animal Response Team (RIDART)	401-222-6800 401-222-3070 after hrs	RI DEM
URI Alton Jones Farm Campus	401- 397-3304 x 6043	
ENERGY		ESF 12
RI State Energy Office (RISEO)	401-222-3370	
New England Gas Company	401- 272-3330	
National Grid/Narragansett Electric Company	800-909-1212	
The Oil Heat Institute		
ISO New England	413-540-4220	
Propane Gas Association of New England	603-544-2226	
US Department of Energy		
Department of Defense		ESF 14
SEARCH & RESCUE		
RI State Police		Lead Agency for ESF 9, 13
Urban Search and Rescue (USAR)		
Air Force Rescue Coordination Center (AFRCC)	850 - 884-5515	ESF 9

Attachment I

Abbreviations

ACIP	Advisory Committee on Immunization Practices
CBO	Community Based Organization
CDC	Centers for Disease Control and Prevention
CBEP	Center for Biodefense and Emerging Pathogens
CERC	Crisis and Emergency Risk Communications
DHS	Department of Health Services (Rhode Island)
DMAT	Disaster Medical Assistance Team
DMORT	Disaster Mortuary Operational Response Team
DOA	Dead On Arrival
EIL	Emergency Informational Line
EMS	Emergency Medical Services
EOC	Emergency Operations Center
FAQ	Frequently Asked Questions
FDA	Food and Drug Administration
FHIL	Family Health Information Line
FTE	Full Time Equivalent
HAN	Health Alert Network
HARI	Hospital Association of Rhode Island
HEALTH	Rhode Island Department of Health
IAP	Incident Action Plan
IC	Incident Command
ICS	Incident Command System
ILI	Influenza-Like Illness
IND	Investigational New Drug
JIC	Joint Information Center
JIT	Just in time Training
LEPC	Local Emergency Planning Committee
MEDS	Medical Emergency Distribution System
NDMS	National Disaster Medical System
NRDSS	National Retail Data Monitoring System
OCD	Office of Communicable Disease
PI	Public Information
PIO	Public Information Officer

PPE	Personal Protective Equipment
RIEMA	Rhode Island Emergency Management Agency
SNS	Strategic National Stockpile
S.O.P.	Standard Operating Procedure
TARU	Technical Assistance Response Unit
UC	Unified Command
UL	Unit Leader
VAERS	Vaccine Adverse Events Reporting System
VIS	Vaccine Information Statement
VMI	Vendor-Managed Inventory
WHO	World Health Organization

Attachment J

Document Web Link List

Document	Web Address
RI Department of Health Website	http://www.health.ri.gov/pandemicflu/index.php
US Department of Health & Human Services Pandemic Flu Plan	http://www.hhs.gov/pandemicflu/plan/
US Government Official Website for Pandemic Influenza	http://www.pandemicflu.gov/
CDC Influenza Home Page	www.cdc.gov/ncidod/diseases/flu/weeklychoice.htm
Communicable Disease Control Guidelines for Disease Prevention and Control	http://www.health.ri.gov/disease/communicable/providers_manuals.php
Community Emergency Medical Clinic template	Not available as yet
Control of Influenza in Acute Care Settings	www.cdc.gov/ncidod/hip/INFECT/flu_acute.htm
Risk Communications Plan: Self Instruction Course	http://www.cepis.ops-oms.org/tutorial6/i/index.html
Department of Human Services (DHS)	http://www.dhs.state.ri.us/
Fever: How to Take the Temperature	www.lpch.org/HealthLibrary/ParentCareTopics/FeverInfectionsCrying/ FeverHowtoTaketheTemperature.html
FluAid	www2a.cdc.gov/od/fluaid
Good health habits	www.cdc.gov/flu/protect/stopgerms.htm -GoodHealthHabits
Homeland Security – Unified Command/NIMS	www.dhs.gov/dhspublic/display?theme=14&content=3697
How to stop the spread of germs at home, school, & work	www.cdc.gov/flu/protect/stopgerms.htm www.cdc.gov/flu/protect/preventing.htm
Interim Guidance for Protection of Persons Involved in U.S. Avian Influenza Outbreak Disease Control and Eradication Activities	www.cdc.gov/flu/avian/professional/protect-guid.htm

Isolation Precautions in Hospitals, Guideline for	www.cdc.gov/ncidod/hip/ISOLAT/Isolat.htm
Guide for the Collection, Submission and Transport of Clinical Specimens	http://www.health.ri.gov/labs/guide.php
Limited English Proficiency	www.hhs.gov/ocr/lep
MedWatch	www.fda.gov/medwatch/

Resources and Interpretations	
Avian Influenza: Clinician Resources	http://www.cdc.gov/flu/avian/professional/
HHS Pandemic Influenza Plan	http://www.hhs.gov/pandemicflu/plan/
Pandemic Influenza Preparedness and Response Plan, Department of Health and Human Services	http://www.hhs.gov/nvpo/pandemicplan/finalpandemiccore.pdf
Power to provide rules and regulations in specific areas.	http://www.rilin.state.ri.us/statutes/title23/23%2D1/23%2D1%2D18.htm
Prevention and Control of Influenza	www.cdc.gov/mmwr/preview/mmwrhtml/rr5208a1.htm
Prevention and Suppression of Contagious Diseases	http://www.rilin.state.ri.us/Statutes/TITLE23/23-6/INDEX.HTM
Prevention of Pneumococcal Disease: Recommendations of the Advisory Committee on Immunization Practices (ACIP)	www.cdc.gov/mmwr/preview/mmwrhtml/00047135.htm
Quarantine	http://www.rilin.state.ri.us/statutes/title23/23%2D8/23%2D8%2D4.htm
Recommendations for annual seasonal flu vaccination	www.cdc.gov/mmwr/preview/mmwrhtml/mm5434a4.htm
Recommendations for pneumonia vaccine	www.cdc.gov/nip/publications/VIS/vis-ppv.pdf
Respiratory Hygiene / Cough Etiquette in Healthcare Settings	www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm
Rules and Regulations Pertaining to the Reporting of Communicable, Environmental, and Occupational Diseases (R23-10-DIS)	http://www.health.ri.gov/hsr/regulations/proposed/communicable-prop.pdf

School influenza prevention resources	www.cdc.gov/germstopper www.itsasnap.org/snap/teachers_nurses.asp www.cdc.gov/flu/school/qa.htm www.cdc.gov/flu/school/ www.cdc.gov/germstopper/resources.htm www.healthinschools.org/sh/influenza.asp www.tdh.state.tx.us/immunize/flu.htm
Updated Infection Control Measures for the Prevention and Control of Influenza in Health-Care Facilities	www.cdc.gov/flu/professionals/infectioncontrol/healthcarefacilities.htm
Vaccine Adverse Events Reporting System	http://vaers.hhs.gov
Vaccine Information Statements-Immunization Action Coalition	www.immunize.org/vis/

Attachment K

Authority and References

Centers for Disease Control and Prevention (CDC), Crisis and Emergency Risk Communication, October 2002

Center of Disease Control and Prevention. (2004). Public Health Guidance for Community-Level Preparedness and Response to Severe Acute Respiratory Syndrome (SARS), Supplement I: Infection Control in Healthcare, Home, and Community Settings.

Center of Disease Control and Prevention. (2004). Smallpox Response Plan and Guidelines, Guide C, Part 1.available [online]: http://www.bt.cdc.gov/agent/smallpox/response-plan

Center of Disease Control and Prevention. (2003). Guidelines For Environmental Infection Control In Health-Care Facilities, MMWR. Available [online]: http://www.hospaa.org/CDCGuiHCfacInfControl1.pdf

Center of Disease Control and Prevention. (2005). Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP), MMWR. Available [online]: http://iier.isciii.es/mmwr/preview/mmwrhtml/rr5408a1.htm

Joint Information Center Model, Collaborative Communications during Emergency Response, NRT Response Subcommittee Workgroup, January 21, 2000.

Rhode Department of Health Emergency Operations Plan, September 8, 2003, Annex F: Public Affairs Support.

Rhode Island Department of Health, Disease Outbreak Plan, April 14, 2004.

Rhode Island Department of Health, Emergency Public Information Plan, June 24, 2004 (under revision).

Rhode Island Hospital's Diversion Plan, June 1. 2004.

Rhode Island Emergency Management Agency, Joint Information Center Organization, February 2003.

Rhode Department of Health Mass Fatality Plan, December 2005 (draft).

Rhode Department of Health Surge Capacity Plan, 2005 (under construction).

Title 23, Health and Safety, Chapter 23-8. Quarantine Generally, Section23-8-4. Available [online]: http://www.rilin.state.ri.us/statutes/title23/23%2D8/23%2D8%2D4.htm

Texas Department of State Health Services. (2005). Pandemic Influenza Preparedness Plan**.**

U.S. Department of Health and Human Services. (2005). HHS Pandemic Influenza Plan. Available [online]: http://www.hhs.gov/pandemicflu/plan/pdf/HHSPandemicInfluenzaPlan.pdf.

Attachment L

STATE OF RHODE ISLAND
MEDICAL EMERGENCY DISTRIBUTION SYSTEM (MEDS) PLAN

TABLE OF CONTENTS

SUBJECT

I. Purpose.
II Situation And Assumptions
III. Concept Of Operations.
IV. Organization And Assignment Of Responsibilities
V. Administration And Logistics
VI. Plan Development And Maintenance
VII. Authority And References

Attachments: (To view all attachments full RI MEDS plan)
A - Meds System Command And Control
Tab 1 – Meds Incident Action Plan (ICS Forms) *(See Full RI MEDS Plan)*
Tab 2- Requesting SNS Assets
Tab 3 – Requesting SNS Assets: Recommended Matrix
B - Meds Key Personnel List And Key Information. *(See Full RI MEDS Plan)*
C - Execution Checklist
D – Meds System Diagram
E - Meds Supply Sources *(See Full RI MEDS Plan)*
Tab 1 - Strategic National Stockpile *(See Full RI MEDS Plan)*
Tab 2 - Providence Veterans Administration Cache *(See FullRI MEDS Plan)*
Tab 3 – Providence MMRS Cache *(See Full RI MEDS Plan)*
Tab 4 - Private Pharmaceutical Supply Plan *(See Full RI MEDS Plan)*
F - Emergency Drug/Vaccine Dispensing Plan
Tab 1 - Priority Listing Recommendations
Tab 1a – RI Demographic Information
Tab 2 – Distribution And Clinic Sites
Tab 2a – Municipality Populations, Percentages, And Push Package Allocations
Tab 2b- Municipality Meds Clinic Locations *(See Full RI Meds Plan)*
Tab 3 - Tracking Record Sheet *(See Full RI Meds Plan)*
Tab 4 – Smallpox Requirements *(See Full RI Meds Plan)*
Tab 5 – Activation Notification Document *(See Full RI Meds Plan)*
Tab 6 – Example Governor Emergency Declarations *(See Full RI Meds Plan)*
G - Model Municipality Dispensing Plan
Tab 1 - Clinic Establishment Checklist *(See Full RI Meds Plan)*
Tab 2 - Incident Command System Recommendations For Clinics
Tab 3 – Emergency Clinic Supply Checklist *(See Full RI Meds Plan)*
Tab 4 – Example Clinic Establishment #1
Tab 5 – Example Clinic Establishment #2 *(See Full RI Meds Plan)*

Tab 6 – Municipal Key Personnel, Locations And Phone Numbers

I. PURPOSE

This document outlines the roles and responsibilities within Rhode Island for the reception and use of Medical Emergency Distribution System (MEDS) Program assets.

II. SITUATION AND ASSUMPTIONS

A. Situation

The MEDS program exists as a way to maintain control of all state-level medical emergency supply resources and to deliver those resources as needed during an emergency. There are several resources available and the intent of this system is to develop a flexible menu of delivery options, which can serve any proposed need.

B. Assumptions

1. An incident has occurred which has taxed the normal medical supplies available within the state.

2. The State Emergency Operations Center will be operational to a degree sufficient to support MEDS needs.

3. A certain level of public anxiety will result from the emergency. This will have political and practical results that may overwhelm various systems such as public information, communications, and healthcare facilities.

4. There will be an increased need for security efforts to protect critical assets and personnel. Threats may include terrorists, criminals, mobs, and individuals.

5. The State will need to care for everyone within state borders, allowing for any seasonal fluctuations or special events.

III. CONCEPT OF OPERATIONS (See Attachment D – Meds System Diagram)

A. Program overview.

1. The MEDS program will incorporate all of the emergency medical supply resources that are available to the state of Rhode Island. This system will be managed at state level through a single integrated logistical system. See Attachment E for more specific

information regarding these assets. The resources available include:

a. **The Strategic National Stockpile (SNS):** a federal system with both "12-hour push packs" available for instant deployment and a "Vendor Managed Inventory (VMI)" system to provide follow-up support. While the supplies within this system are stored outside of RI, the SNS is designed to respond rapidly with enormous quantities of almost any medical item needed. Since this is, by far, the largest resource available, most parts of the MEDS are designed to receive and integrate with the SNS.

b. **Providence Veteran's Affairs Medical Center cache:** Many VA centers have received a supply cache to be used during emergencies. Providence has such a cache. This is designated primarily for the use of the VA; however, the local community could use it, if necessary. Due to federal regulations, an MOU has not been established between RI MEDS and the VA, but during an emergency situation, the cache may be released.

c. **Providence Metropolitan Medical Response System (MMRS) cache:** The MMRS is a specific funding stream from the federal government for Providence to improve its capabilities to respond to terrorist incidents and other public health emergencies. Part of this system will include a cache of medical supplies. Once established, the MEDS will establish procedures to access these supplies, if needed.

d. **Private pharmaceutical representative program:** A number of private pharmaceutical representatives, who normally handle physician samples of their products, have designed a system to make these products available in an emergency. This system is based on an MOU between these agents and specific hospitals where the supplies will be delivered.

2. **System management**. Under an activated State EOC, specific operational teams will manage MEDS assets. In general, the leadership for such activities will be integrated into a State EOC organization. MEDS-specific elements will handle the actual management of supplies and organization of clinical distribution sites as needed.

3. **Distribution.** All municipalities are expected to develop internal systems to distribute to every person within their geographic area.

Some specific distribution sites will also be organized at state level to take care of defined population groups or special locations. Direct links will be made with all hospitals in order to supply them directly as needed. When an emergency occurs, the MEDS management team, working with HEALTH, will decide which distribution sites to activate in order to receive supplies.

B. **Execution.** Any agency, including the Department of Environmental Management (DEM), the Hospital Association of Rhode Island (HARI) or any of the hospitals in the state, may request activation of the MEDS assets. Since the MEDS is requested to answer a specific medical need, HEALTH will be the agency to receive all requests. HEALTH will evaluate all such requests and, if validated, will pass a request for activation to the appropriate agency to utilize their resources. In the interest of time, in a fast moving emergency, the RIEMA may activate the system immediately and then coordinate with HEALTH. There are a variety of scenarios under which it could be used and therefore may be requested.

IV. **Organization And Assignment Of Responsibilities**. See Attachment A for a description of the command and control structure to manage the MEDS. Specific responsibilities are as follows:

A. HEALTH

1. Principal organizer for the overall reception plan. Responsible for the development, coordination, rehearsal, and updates to this plan.

2. Specifically responsible for developing the distribution plan and managing the medical resources provided. Staff the key teams to be activated to manage the MEDS during an emergency.

3. Responsible for developing specific needs statements for follow-on shipments (Vendor Managed Inventory items from the SNS).

B. RI Emergency Management Agency

1. Provide a secure location, protected from the elements, as centrally located in the State as possible, for the storage and handling of MEDS supplies.

2. Ensure that the storage/work site has suitable communications for supporting the needs of the program.

3. As the organizer of the State Emergency Operations Plan and Emergency Operations Center, coordinate all required support for

the program. This will include the need for an EOC planning and logistical section specific to managing MEDS functions.

4. Coordinate the participation of state agencies in the planning and execution of the program.

5. When necessary, contact local municipalities to activate a MEDS response.

C. RI National Guard

1. Per coordination with the RIEMA, be prepared to provide security, logistical, and other support as requested.

D. RI State Police

1. As the state lead for the security Emergency Support Function with the State EOC, coordinate all security requirements for the MEDS.

E. RI Department of Transportation

1. As the lead state agency for transportation, be prepared to provide transport assets to move supplies from the central storage facility to distribution points and hospitals.

F. Salvation Army

1. Through mutual agreement, provide the initial transportation assets with drivers to move SNS assets. The Salvation Army emergency services office has indicated the availability of six or more large cargo trucks dedicated first to MEDS activities. (Contact information for activation contained in Annex B). Coordinate the use of any such assets with DOT.

G. Receiving Locations

1. Be prepared to receive supplies, operate clinics, and/or use the supplies as needed. This includes the inherent need to secure the items and manage all personnel issues (staff and clinic participants).

2. Participate as directed per Attachment F –Emergency Drug/Vaccine Distribution Plan.

V. Administration and Logistics

A. All involved agencies will record any costs associated with this program and will provide cost documentation on request.

B. No agency will be charged for any MEDS supplies and in turn will not charge anyone to whom MEDS supplies are distributed. (An exception to this may be supplies from the VA cache. Those details will be worked directly by the VA.)

VI. Plan Development and Maintenance

A. The point of contact for any recommended changes is the Strategic National Stockpile Coordinator for the RI Department of Health. Current point of contact is Alysia Mihalakos, 222-8035, AlysiaM@doh.state.ri.us

B. This plan will be reviewed annually through at least a conference and tabletop exercise with all critical parties.

VII. Authority and References

A. Authority

1. General Laws of Rhode Island

2. State Emergency Operations Plan

B. References

1. Planning Guide for Receiving, Organizing, Repackaging, and Distributing the CDC National Pharmaceutical Stockpile, Draft #9, April 2002, National SNS Office.

2. ICS Position Descriptions and Responsibilities, National Training Curriculum, Oct 1994.

3. US Coast Guard Incident Management Handbook, 2001. http://www.uscg.mil/hq/g-m/mor/page2index.htm

Attachment A

Meds System Command And Control

I. Purpose

To outline the key responsibilities and positions necessary at State level to manage a MEDS activation. This planning is based on a full activation; partial activations may utilize fewer personnel.

II. Organization

In general, with the State EOC activated, the Emergency Support Function #8 (Health and Medical) desk within the Operations Section will be the higher office for the MEDS organization. This function is integrated with the activation of emergency functions at the RI Department of Health. The MEDS will utilize existing offices for support, but will also establish some unique functions to manage the process. Principal MEDS functions will include warehouse management, distribution site training and advice, and distribution coordination.

A. State Support Functions: This document speaks only to the unique MEDS functions. The assumption is that during MEDS activation, the State Emergency Operations Center (EOC) and HEALTH emergency functions have been activated. With those sections functioning, certain activities are performed at those levels. These activities include:

B. Information: The State Joint Information Center (JIC) and/or HEALTH's Public Information Team will conduct all media and public interaction.

C. Legal: HEALTH's Legal Counsel will provide all legal support.

D. Logistics: Every section will need to organize its own logistical needs. For larger state issues, RIEMA will support logistical issues from the EOC.

E. Finance/Admin: Most of these issues will be handled by normal HEALTH's functions (Office of Management Services)

F. Plans: ICS Planning needs for MEDS will be coordinated by the State EOC plans section.

III. **Meds Unique Functions**

1. MEDS Operations Chief (HEALTH). Co-locate with the ESF#8 desk within the State EOC. Serve under the State EOC Operations Section Chief as the lead for MEDS functions. Ensure activation of

critical assets and operation of the system. Provide guidance and delegate responsibilities to the other MEDS-unique functions.

2. Warehouse Unit. (Receiving, Staging, Storing Facility).

   a. Supervise the sorting, repackaging, and distribution of all MEDS items at the warehouse area.

   b. Maintain a tracking system to know the quantity and types of items available within the warehouse as well as the items that have been passed to distribution points.

   c. Maintain proper accountability of all controlled substances and all items per standard DEA and local procedures.

   d. As appropriate, accompany shipments of supplies to hospitals or distribution points.

   e. Coordinate with the Distribution Coordination Unit as to distribution decisions (quantities, types of supplies, destinations and expected arrival times). The Distribution Coordination Unit will notify and coordinate with all receiving sites.

   f. As supplies need to be moved around the state, coordinate directly with the State EOC to obtain and manage transportation and security assets.

3. Distribution Coordination Unit (formed from the Vaccine Office and works out of the State EOC).

   a. Under guidance from the Director's office and Executive Committee (Dept of Health), establish priorities for supply distribution throughout the state. Decide which MEDS clinics will be activated and receive supplies. Use the State EOC (for municipalities) and HEALTH assets to notify distribution points as to their participation.

   b. Coordinate with all sites to determine their capabilities and need for supplies and equipment.

   c. Determine the distribution plan for MEDS supplies. Coordinate distribution support needs with state EOC functions (logistics, transportation, security). In conjunction with the state EOC plans section, develop periodic Incident Action Plans to describe MEDS activities. Transmit this information to the Warehouse Unit and to the receiving

sites. Collect distribution information from the Warehouse Unit and pass this information to the receiving sites. Track the movement and distribution of supplies.

d. Determine follow-up needs for supplies. Develop supply requests and forward them to the State EOC for transmission to the federal SNS offices. (This process only applies to SNS supplies. The assumption is that internal supplies will be utilized first to the maximum extent possible.)

4. Site Coordination Unit (Responsibility of the Pharmacy Office within the Health Services Regulation Division of HEALTH, with support from the Office of Communicable Diseases, Division of Disease Prevention and Control).

   a. Develop, in advance, all written materials needed by distribution sites. Have a plan to distribute these materials in a timely manner.

   b. Provide the guidance and professional education needed for the distribution sites to function. Present "just-in-time" training and materials for site staff. Create and operate a system to approve operation of these sites prior to distribution of MEDS items.

   c. Provide guidance to distribution sites as to individual tracking and reporting of personnel who received MEDS items.

5. Technical Assistance Response Unit (TARU) Liaison Team. For an SNS deployment, serve as the initial contacts for the accompanying 3-8 federal personnel who will serve as security and technical experts for the use of SNS materials. Provide initial transportation (most likely from the airport) and help coordinate initial orientation and movement as needed.

6. HEALTH Distribution Team.

   a. Provide the physician to sign for any SNS shipments received in RI.

   b. Establish a team to provide pharmaceutical/vaccine distribution to the personnel working at the warehouse site.

   c. Establish a team to provide pharmaceutical/vaccine distribution at the Cannon Building for HEALTH personnel

and selected state government personnel. Specifically, provide distribution for the Capitol Police.

Attachment A

Meds System Command And Control
Tab 2 – Requesting SNS Assets

I. **Purpose**

This document is to describe how the State will request materiel from the Strategic National Stockpile.

II. Situation And Assumptions

A. Expanded surveillance systems identify "emerging" infectious diseases, syndromic illnesses, patient surges at local hospitals, deaths with unknown etiology.

B. Burgeoning public health problem prompts activation of HEALTH EOC and/or the State EOC.

C. State, Local and/or Federal efforts to determine cause, treatment/prophylaxis means and epidemiology intensify.

D. Pharmaceutical/medical supplies assessed, determined inadequate for the threat.

III. Concept Of Operations

A. HEALTH Executive Committee and will consult and recommend an SNS request for:

1. Multiple products via a Push Package

2. Specific product(s) via Vendor Managed Inventory (VMI)

B. Once it has been determined that a request is necessary, the following steps must be taken:

1. The Director of HEALTH will forward recommendation to the Governor's Office.

2. Governor's Office, in coordination with the Director of HEALTH, Director of RIEMA, ESF#8 Lead, and MEDS Coordinator will proceed with request and follow-up conference calls to CDC.

3. CDC approves State's SNS request.

4. RIEMA will notify appropriate Municipality Emergency Management Directors to put them on stand-by to open MEDS clinics.

5. State MEDS Coordinator, with Executive Committee will select and confirm availability of RSS location.

Attachment A **:Meds System Command And Control**

Tab 3 Requesting SNS Assets: Recommended Matrix

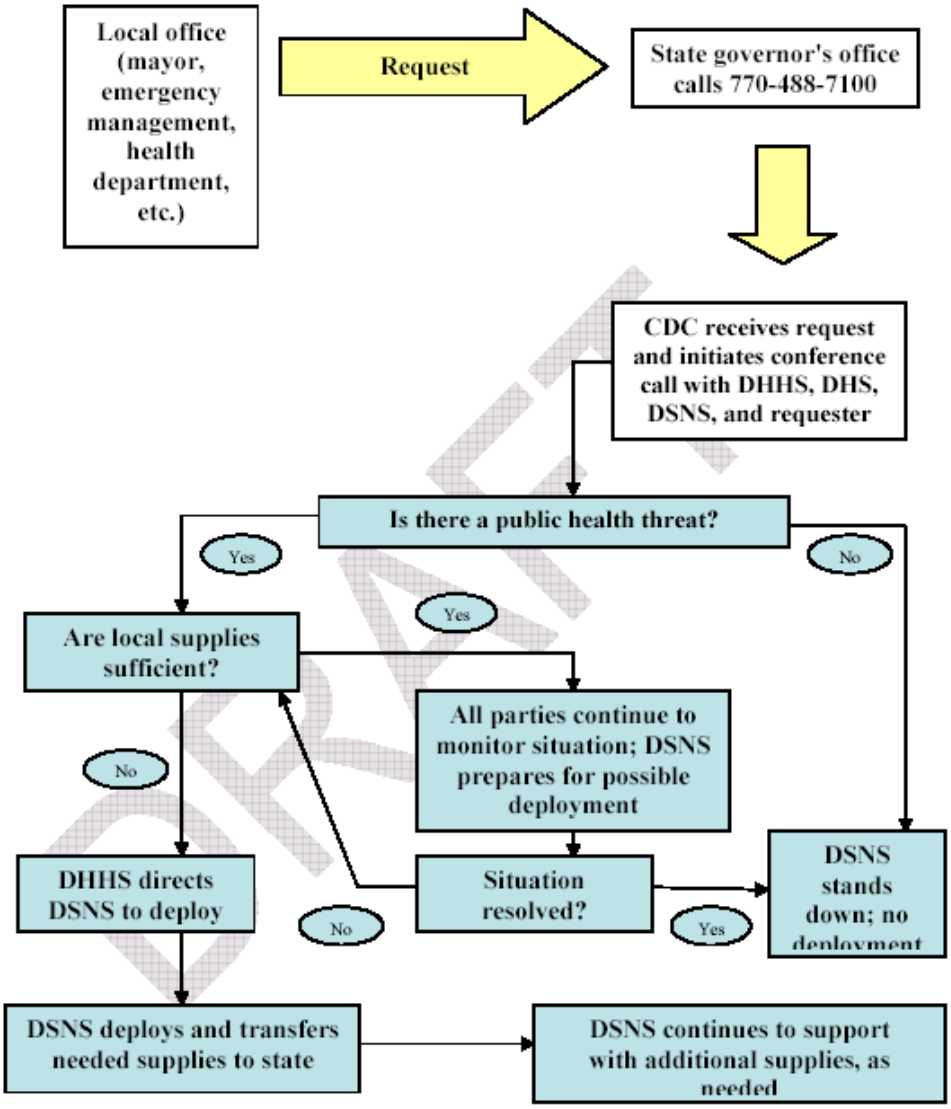


Figure 3.1. Process for requesting SNS Assets.

Attachment C

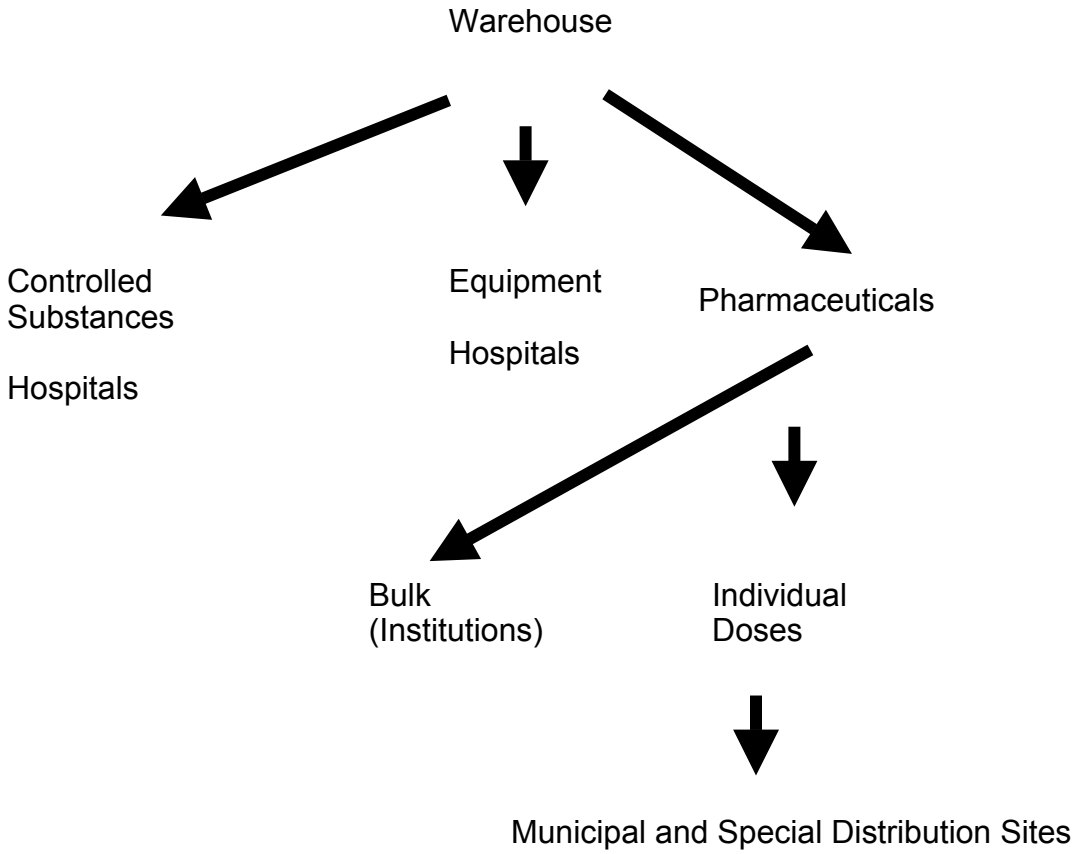
Execution Checklist

I. **Purpose**. To provide a checklist to be followed throughout the state in the event an emergency drug or vaccine distribution needs to be implemented.

ITEM	RESPONSIBILITY	REFERENCES	NOTES
Emergency supplies requested	HEALTH validates request and specific needs	Federal SNS guidance	
Activation of SNS Task Force	RIEMA/HEALTH		
Establish required health coordination offices	HEALTH		
Notify all agencies/personnel	RIEMA/ HEALTH		
Notify Hospitals, Clinic Sites	HEALTH		
Finalize priority listing and distribution plan	Governor's Office decision. HEALTH execution.	Annex B – Priority Listing Recommendations	
Prepare local clinic plans.	Local EMA directors and MEDS clinic directors	Annex E - Clinic Establishment Checklist	
Conduct planning meeting to organize and implement distribution plans.	HEALTH		
Prepare facilities to receive and store supplies	All		
Receive supplies	Warehouse		
Distribute supplies	State EOC		
Monitor status of implementation plans. Gather documentation.	HEALTH		

Attachment D

Meds System Diagram



Attachment E

Emergency Drug And Vaccine Dispensing Plan

I. **Purpose**. This plan provides guidance and information for the State of Rhode Island to conduct an emergency distribution of vaccines or drugs due to a terrorist event, hazardous materials incident, or other public health emergency. These procedures may be used for the emergency distribution of pharmaceuticals/vaccines to address any other health issue.

II. Situation And Assumptions

A. Situation. See Basic MEDS Plan.

B. Assumptions.

1. Rhode Island will need to support the distribution plan with internal assets. Federal assets may arrive to augment these procedures; however, for planning purposes, strictly internal assets will be considered.

2. The possible disease scenarios may require the distribution of items to a wide range of personnel. This may range from a very select group to a statewide distribution to the entire population.

3. Distribution will need to be planned for all people physically located in Rhode Island. This may include permanent federal workers, the Veteran's Administration facility, the Newport Navy Base, emergency workers (arriving from out of state, including military and other federal assets), the transient tourist population, transient media personnel, and all special groups (children, students at colleges and universities, incarcerated persons, pregnant women, ethnic groups with limited English skills, etc.).

III. Concept Of Operations

A. There are a wide range of scenarios that will require the rapid distribution of emergency drugs and vaccines. It is impossible to plan for all possibilities and so the purpose of this plan is to establish a broad structure that is flexible enough to handle all situations.

B. A large percentage of the supplies available through the SNS are intended for hospital use. The medical equipment (IVs, etc.) will be distributed directly to hospitals, along with any bulk pharmaceuticals received through VMI that are intended to treat patients and protect the

hospital workers. All hospitals must have a plan for this type of internal distribution. It is specifically the intent of this plan for hospitals to only treat patients and their own workers. Other people will be diverted or referred to other sites in order to obtain prophylactic drugs and/or vaccines. Besides the hospitals with Emergency Rooms and in-patient capability for the public, other medical facilities or locations with a distribution system and pharmacy may receive bulk pharmaceuticals as needed. These may include the Veterans' Administration facility, Newport Navy Base, and other specialty hospitals throughout the State (Butler, Bradley, Eleanor Slater, etc.).

C. Bulk pharmaceuticals, if received, will only go to facilities that can manage them. For general distribution, the bulk supplies will be broken down at the single state warehouse into individual doses (See TAB 1). These individual doses will be taken to mass distribution sites and passed out as needed. There are three levels of mass distribution:

1. At the first level of distribution, a system will be needed to distribute pharmaceuticals to emergency workers. This includes first responders, state personnel, essential civilian personnel, and incoming assistance personnel. There will probably be a need for a site at TF Green airport to interview incoming and outgoing personnel and distribute items as appropriate.

2. A second level of distribution will be needed for the affected general population. To address this, one or more central sites will be used. It is anticipated that in most cases, the source of the problem (outbreak or infection) can be found, and public information campaigns will deliver appropriate messages to the public so that any people who are possibly affected can show up at a mass dispensing site. At the site, interviews will be conducted to determine who is affected, and those who are affected will receive the needed medical items.

3. If the issues are so large that the entire population is affected, local assets will need to be activated within cities and towns. The mass clinics may be the best way to distribute to the mobile population; however, for homebound or institutionalized populations, local governments will need to develop systems to reach ALL of their population. Cities and towns may need to develop systems to literally go door-to-door, record contacts, and ensure that the entire population has been reached. This may include some methods for distributing drugs or vaccines locally.

D. Model distribution plan

1. Arrival of Strategic National Stockpile shipment(s). Stockpile moved to distribution warehouse and/or HEALTH (for refrigerated items). Bulk pharmaceuticals divided into individual doses (if needed).

2. Equipment and bulk pharmaceuticals distributed to hospitals in need.

3. Individual dose bottles issued to emergency community and special sites.

4. Special sites distribute internally.

5. Mass prophylaxis site(s) established and operational (for general population).

6. Cities/towns institute local procedures as required.

E. Controlled substances

Certain controlled substances, such as pain medications, are available through the program. These limited items require special security handling and often require refrigeration. These items will be managed directly by HEALTH and will be distributed as quickly as possible to hospitals.

IV. Organization and Assignment of Responsibilities

A. HEALTH

1. Manage, organize, and implement this plan.
2. Be prepared to recommend distribution priorities to the Governor.
3. With the State EOC, coordinate the distribution plan throughout the State.
4. Directly manage the controlled substances arriving within the SNS system.
5. Provide refrigerated storage as needed.
6. Provide all required forms and documentation. Provide technical guidance for distribution and education.
7. Conduct the necessary statewide public information campaign to support any distribution.

B. Emergency Management Agency

1. Coordinate the use of National Guard, transportation, and security assets in support of this plan.
2. During implementation of the plan, coordinate the requests for additional support assets.

C. Rhode Island National Guard

1. Be prepared to provide transportation and security for all supplies between sites.
2. Be prepared to augment police security at all sites.

D. Municipalities

1. Identify locations and an appropriate number of clinic sites for the municipality.
2. Identify clinic site leaders and assist them in developing their plans.
3. Facilitate support needs for the clinics.
4. Develop plans for people to staff the clinics utilizing local medical and volunteer assets.
5. Develop a system to poll the entire population, if needed, in order to obtain information or ensure all people receive needed medications.

V. ADMINISTRATION AND LOGISTICS

A. Tracking the distribution of all materials will be critical, yet very difficult, during emergency operations. All personnel involved in this plan will maintain records of distribution and use. Local specialty forms and routine forms may be used as appropriate. Some forms will come with the SNS and they may be used. If no other documentation is available or appropriate, the form at Tab 5 will be used to record any transaction. All distributing offices will maintain a copy of all forms and will be prepared to forward copies as directed during the emergency in order to account for materials and track individuals and institutions that have received supplies.

VI. PLAN DEVELOPMENT AND MAINTENANCE

VII. AUTHORITY AND REFERENCES

TABS:

1 - Priority Listing Recommendations
    A – RI Demographic Information

2 – Distribution And Clinic Sites

3 – Tracking Record Sheet

4 – Smallpox Requirements

Attachment F

Emergency Drug And Vaccine Distribution Plan
Tab 1 - Priority Listing Recommendations

I. Purpose

In times of limited supply, it will be necessary for the Governor of the State of RI to make decisions about the priority of distribution. This list outlines some principles and planning numbers in order to make recommendations in accordance with this plan. The intent is that all persons from a priority list would be covered before moving on to any additional priority groups.

II. Selection Criteria

At the time of the event, the following criteria should be used to determine the exact priority for using the available supplies:

A. Nature of the disease. Does it target certain groups more than others? Which groups are at highest risk for death from the disease?

B. Geographic location and possible spread of the disease. Is it most likely to be contained in one area that should get a higher priority for supplies?

C. Disease time factors. Can sick people be effectively treated once they show symptoms? Would drugs and supplies be better used as prophylaxis or for treatment once symptoms appear?

D. Can other actions, such as self-isolation or quarantine, be effectively applied to reduce the need for drug/vaccine use? How at-risk are family members remaining at home from getting the disease?

E. How many people fall into each category? Are there enough supplies to effectively treat desired groups?

F. How fast will supplies be available to conduct further distributions to the various groups?

III. **Recommended Priority Groups**: As a general guideline (without taking into account factors described above and CDC guidelines), the following priority groups may be used.

Priority I	Priority II	Priority III	Priority IV
Essential Gov't – Federal, State, Local	High Risk by age, condition, disability	Secondary government, medical, public service personnel	Others – healthy individuals, transients (tourists, etc.)
Essential Healthcare Providers- Hospital personnel, Health Center personnel	Essential Civilians (Food service workers, mortuary personnel, etc)		
Essential Public Service – Police, Fire, EMS, Utility, National Guard			

Notes:

1. Of particular concern would be the family members of personnel in the above groupings. A key decision will be where to place them in the priority listings.

2. Of practical concern are methods to identify members by category. Once groups are listed, how do individuals identify themselves in order to receive their supplies?

Attachment F

Emergency Drug And Vaccine Distribution Plan
Tab 1A - RI Demographic Information

I. PURPOSE

This appendix provides some critical RI demographic information, compiled from various sources. The intent is to provide some planning data on which to determine the distribution of critical drugs/vaccines. Numbers are rounded and are only meant to provide rough approximations.

County Populations

Bristol	50,648
Kent	137,509
Newport	85,433
Providence	621,602
Washington	123,546
RI Total Resident Population	1,048,319

Physicians	3,021
Veterinarians	170
Nurses (RN, NP, LPN, CNA)	21,225
Physician Assistants	164
Pharmacists (and aides)	2,000
EMTs	4,279
RI Air and Army National Guard	3,800
RI Police Forces (all)	
RI Fire Services (Including Volunteers, Not Including EMTs)	
Embalmers/Funeral Directors	185
Local Government	34,300
State Government	18,000
Federal Workers	10,600

Attachment F

Emergency Drug And Vaccine Distribution Plan
Tab 2 – Distribution And Clinic Sites

The following are possible clinic/distribution sites. These may receive bulk supplies or supplies already divided into individual doses.

Note – Hospital Staff Numbers are approximate and include full-time, part time, and per diem personnel.

TYPE ASSET	ASSET NAME	MANNING RESPONSIBILITY	POP. SERVED	RESOURCES PROVIDED
Acute Care Hospital	Kent County	Staff = 2324	359 Beds	Medical Equipment & Bulk Drugs or Vaccines
	Landmark	Staff = 864	214 Beds	
	Memorial	Staff = 1543	294 Beds	
	Miriam	Staff = 1972	247 Beds	
	Newport	Staff = 883	200 Beds	
	Rhode Island	Staff = 5920	719 Beds	
	Roger Williams	Staff = 1413	220 Beds	
	St. Joseph	Staff = 1807	366 Beds	
	South County	Staff = 901	100 Beds	
	Westerly	Staff = 715	125 Beds	
	Woman & Infants	Staff = appx 3427	137 Beds	
Specialty Hospitals	Butler		105 Beds	Mostly Bulk Drugs or Vaccines
	Eleanor Slater	Staff = Appx. 1000	500 Beds	
	Zambarano		200 Beds	
	Bradley		60 Beds	
	Rehabilitation Hospital of RI		82 Beds	
	RI Veterans Home		339 Beds	
	VA Hospital		60 Beds	
Special Sites	Newport Navy Base	Navy Clinic	Newport Navy Base Personnel. Population 29,000	Bulk Drugs or Vaccines
	TF Green Airport	City of Warwick	Incoming and Outgoing personnel as appropriate	Individual Doses
	Pastore State Complex		Pastore Complex	ACI= 1543 employees and up to 3500 inmates

Attachment F –Tab 2a –

Municipality Populations And Percentages
Emergency Drug And Vaccine Distribution Plan

Municipality	Population	Proportion of the Total Population
Barrington	16,819	0.0160
Bristol	22,469	0.0214
Burrillville	15,796	0.0151
Central Falls	18,928	0.0181
Charlestown	7,859	0.0075
Coventry	33,668	0.0321
Cranston	79,269	0.0756
Cumberland	31,840	0.0304
E. Greenwich	12,948	0.0124
E. Providence	48,688	0.0464
Exeter	6,045	0.0058
Foster	4,274	0.0041
Gloucester	9,948	0.0095
Hopkinton	7,836	0.0075
Jamestown	5,622	0.0054
Johnston	28,195	0.0269
Lincoln	20,898	0.0199
Little Compton	3,593	0.0034
Middletown	17,334	0.0165
Narragansett	16,361	0.0156
Newport	26,475	0.0253
New Shoreham	1,010	0.0010
N. Kingstown	26,326	0.0251
N. Providence	32,411	0.0309
N. Smithfield	10,618	0.0101
Pawtucket	72,958	0.0696
Portsmouth	17,149	0.0164
Providence	173,618	0.1656
Richmond	7,222	0.0069
Scituate	10,324	0.0098
Smithfield	20,613	0.0197
S. Kingstown	27,921	0.0266
Tiverton	15,260	0.0146
Warwick	85,808	0.0819
Warren	11,360	0.0108
Westerly	22,966	0.0219
W. Greenwich	5,085	0.0049
W. Warwick	29,581	0.0282
Woonsocket	43,224	0.0412
TOTAL	**1,048,319**	

Attachment G

Model Municipality Dispensing Plan

Note – If an electronic copy of this model plan is copied for use by a municipality, necessary modifications should be made to incorporate the document correctly into the municipality Emergency Operations Plan. Changes will need to be made to the page numbering, header and footer, and title above (ATTACHMENT G). Most likely the documents attached here as Tabs may end up being "attachments" to the city/town document if used.

Municipality of _____ Emergency Operations Plan
Emergency Drug/Vaccine Distribution Plan

Date:

Subject Page

I. Purpose.
Ii. Situation And Assumptions
Iii. Concept Of Operations.
Iv. Organization And Assignment Of Responsibilities
V. Administration And Logistics
Vi. Plan Development And Maintenance
Vii. Authority And References

Tabs (Attachments In Used Document?):
1 – Clinic Establishment Checklist
2 – Incident Command System Recommendations For Clinics
3 – Emergency Clinic Supply Checklist
4 – Example Clinic Establishment #1
5 – Example Clinic Establishment #2

I. Purpose

This document will outline the plan to establish emergency drug and/or vaccine distribution points for the population if directed by HEALTH. This plan includes provisions for communicating with the entire population as necessary and all supporting services.

II. Situation And Assumptions

A. Situation

Some disease or health condition requires the distribution of emergency supplies to members of the population.

B. Assumptions

1. The Municipality Emergency Operations Center (EOC)or some equivalent command and control facility will be operational. All municipality resources will be mobilized to support the emergency.

2. State facilities such as the State EOC and/or HEALTH will be operational and will be providing coordinating instructions.

3. Medical supplies needed for any distribution will be primarily provided by HEALTH. As a back-up, local resources will be identified and available.

III. Concept Of Operations See Tab 1 – Clinic Establishment Checklist.

HEALTH will notify the municipality of the need for clinic establishment, the population to be served, and any other appropriate guidance. As soon as possible, the municipality will convene a meeting of the necessary personnel in order to begin this process. Those personnel include: The Emergency Management Director, Fire Chief, Police Chief, and the Chief Elected Official. The clinic establishment checklist will provide specific details to be followed.

IV. Organization And Assignment Of Responsibilities

A. Chief Elected Official

1. As necessary, task municipality assets to support operations.
2. As necessary, manage the public affairs aspects of the operations.

B. Emergency Management Director

1. Provide overall supervision for the municipal emergency management system, including the activation of the emergency medical distribution system.
2. Manage municipality emergency assets such as the EOC in support of the distribution clinics.
3. Conduct an annual training event and test for clinic establishment.
4. Organize and coordinate an appropriate emergency communications plan for the clinics.

C. Police Chief

1. Supervise all security needs within the city/town.
2. Establish and manage the traffic control plan.

D. Fire Chief

1. Provide EMS support as appropriate.

E. Chief SNS Planner/Manager

1. Assume overall responsibility for the organization and execution of the emergency medical distribution system.
2. Organize assets and recruit personnel to manage an emergency medical distribution system.
3. Supervise the various pieces of the local system – provide support and assistance as needed. Ensure coordination of the pieces with the larger municipal-wide systems.

F. Chief SNS Medical Advisor (Physician, PA or NP with prescribing authority):

1. Provide medical advice and assistance for the organization and operation of the local systems. Ensure that appropriate standard of care is maintained during all distribution functions.
2. Ensure the appropriate training and work of the medical professionals involved in the local SNS system. Coordinate information and training with HEALTH.

G. **MEDS Site Manager** (Planner and Manager during activation):

1. Plan for and operate a specific distribution site. Organize all aspects of the site and coordinate all necessary activities.

H. **MEDS Site Medical Director** (Needs to be a Physician, PA or NP with prescribing authority who will be on site during an activation).

1. Manage the medical operation of the site. Coordinate the activities of all medical professionals on site.
2. Supervise the medical treatment and decision-making regarding all individuals.

I. MEDS Site Pharmacist

1. Provide pharmacy support to the site. Ensure the delivery of supplies to individuals is done to standard, with the appropriate documentation, and provide the necessary information to customers.
2. Provide assistance, support, and training to other medical professionals on-site regarding the materials being distributed to personnel.
3. Ensure proper storage and handling of all pharmaceuticals on-site.

J. State Department of Health

1. Provide all required medical supplies.
2. Provide the appropriate training for medical personnel.
3. Provide the instruction and materials for the medical information provided to patients and the associated medical forms needed by the clinic.

IV. Administration And Logistics

A. Key Personnel, Locations and Phone Numbers. See Tab 6 (Municipal Key Personnel, Locations and Phone Numbers)

V. Plan Development And Maintenance

This plan will be maintained and updated as appropriate by the city/town Emergency Management Director.

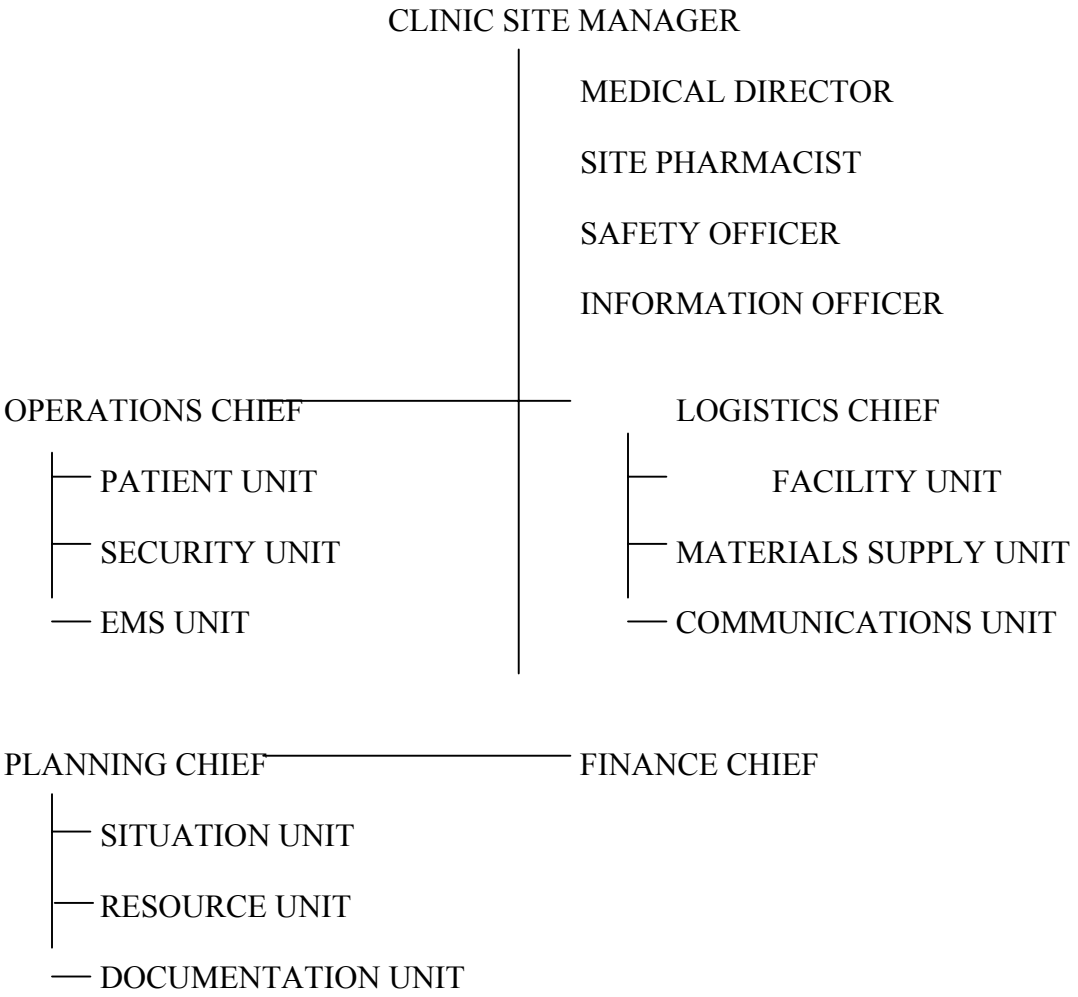
VI. AUTHORITY AND REFERENCES

A. State EOP (including the State Medical Emergency Distribution System Plan).

Tab 2 – Incident Command System Recommendations for Clinics

Note – This section utilizes guidance information from the Incident Command System (ICS), which is a national system for rapidly organizing emergency operations. If the clinic personnel are not familiar or comfortable with ICS, the following recommendations should be used as a checklist for accomplishing critical functions or assigning people to critical tasks within a clinic establishment.

A. Command Diagram:



B. Duties

Listed here are the duties of the major personnel or sections within a clinic. Depending on the size of the clinic and the physical location, the number of personnel within each section will vary.

1. Clinic Site Commander. Overall responsible for planning, establishment, and running of the clinic site. Coordinate closely with higher authority such as a municipal government or hospital executives.

2. Safety Officer. Evaluate and mitigate against any safety hazards in and around the clinic site.

3. Information Officer. Could be the information officer from another organization such as a supporting hospital or the Chief Elected Official's office.

    a. Provide information to the public concerning clinic times and instructions.
    b. Coordinate media inquiries and events at the clinic.

4. Operations Section Chief. Manage all operational matters by utilizing a patient, security, and emergency medical services unit.

    a. Patient Unit.

        1) Administer vaccines and drugs to patients.
        2) Document all vaccine/drug delivery, patient records, and all associated forms.

    b. Security Unit. (Security Officer should be from the local police department.)

        1) Coordinate external security and crowd control.
        2) Coordinate traffic control.
        3) Manage security within the clinic site.
        4) Enforce the distribution priority plan. (Screen people and only authorize those on the priority list to enter the facility.)

    c. Emergency Medical Services Unit. Address adverse reactions and any medical emergencies.

5. Planning Section Chief. Manage the Planning Section utilizing the Situation, Resources, and Documentation Unit Leaders.

a. Situation Unit. Maintains current status of the overall program including supplies, personnel (receiving vaccines/drugs), worker, and security/traffic status.

b. Resources Unit.

1) Responsible for managing all working personnel. Establish and ensure qualified people are performing appropriate duties. Establish shift schedules as needed. Maintain personnel rosters and record duty times. Establish sign-in and sign-out rosters. Maintain a system to utilize volunteers.
2) Track the status of critical supplies.

c. Documentation Unit. Collect and maintain all records associated with the clinic. Organize any post-activity documentation and recommendations for future clinics. Recommend improvements to this document.

6. Logistics Chief

a. Manage all logistical issues utilizing the following Units:

1) Facility Unit. Responsible for the facility and all "basic needs" issues such as feeding, trash, set up, and clean up.
2) Material Supply Unit Leader. Responsible for all supplies, both medical and non-medical.
3) Communications Unit Leader. Organize all of the necessary communications systems for the site.

7. Finance Chief

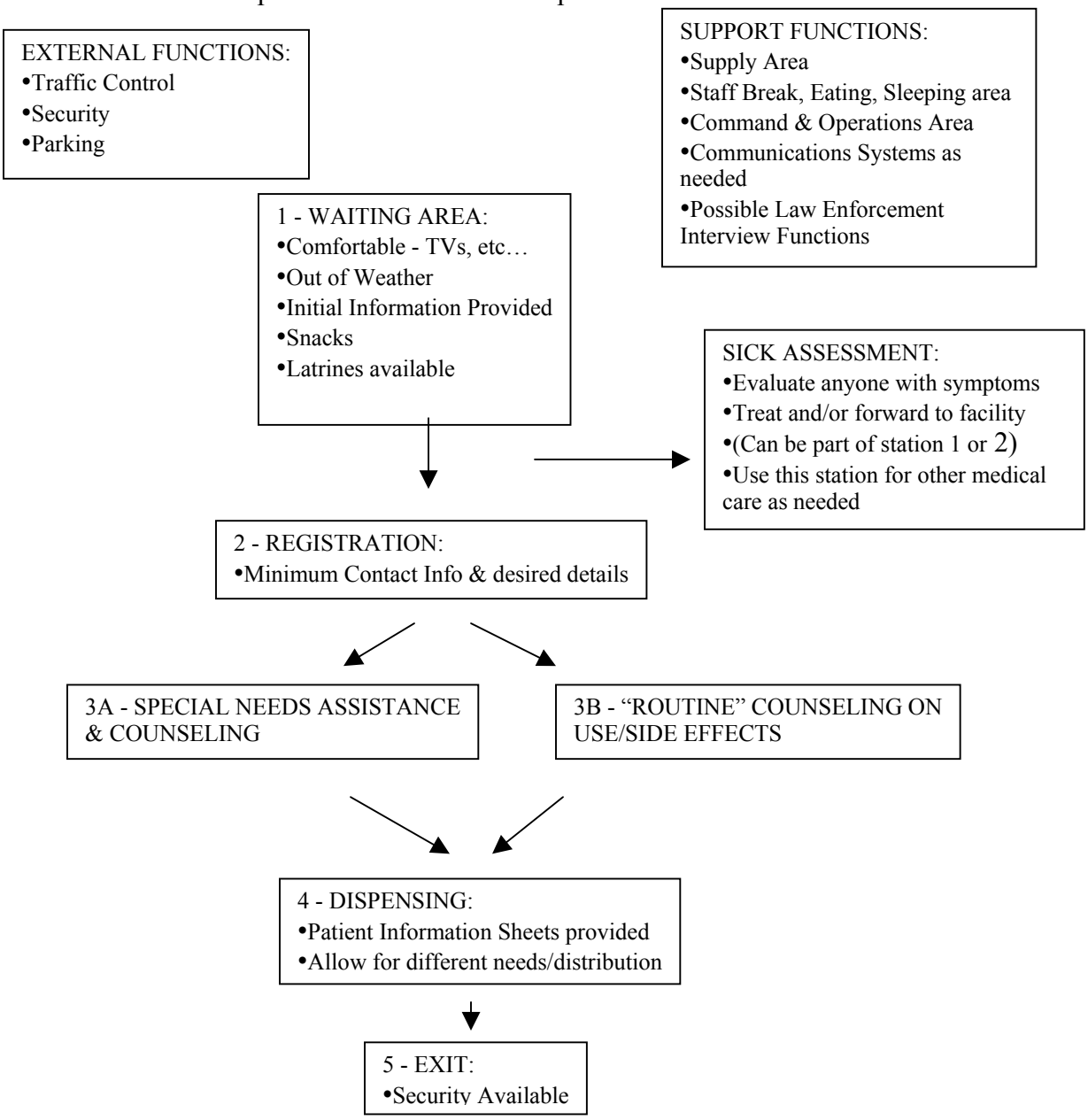
As necessary, maintain financial records associated with the clinic.

TAB 4 –
to Attachment G

Example Clinic Establishment #1
Model Municipality Distribution Plan

1. Example clinic model as used in Washington, DC for pill distribution.

2. Site used 60-100 personnel and was able to process 150-225 consumers/hour.



Tab 6 – (Municipal Key Personnel, Locations And Phone Numbers) To Attachment G –
Model Municipality Distribution Plan

I. Municipality –

Chief MEDS Planner/Manager (The person who will organize these systems for the municipality and will be the principal contact if a MEDS distribution is conducted:
Name – Job Title/Position-
Work Phone - Work Fax –
Cell Phone - Pager –
Email -
Emergency Contact Method (24x7) -

Chief MEDS Medical Advisor:
Name – Job Title/Position-
Work Phone - Work Fax –
Cell Phone - Pager –
Email -
Emergency Contact Method (24x7) -

Alternate MEDS Contact(s):
Name – Job Title/Position-
Work Phone - Work Fax –
Cell Phone - Pager –
Email -
Emergency Contact Method (24x7)

II. MEDS Distribution Sites (Note – **Copy for as many sites as are planned,** enough to handle the entire population. In particular, identify special internal sites that may distribution to their own populations – colleges/universities, airports, prisons, hospitals, resident homes, clinics, etc. The municipality is ultimately responsible for ensuring that 100% of the people within the boundaries of the municipality are covered by some type of distribution system).

Site (Name/description) -
Address –
Contact Number (s) (Phone numbers at the site to be used during the course of a distribution clinic activation):
Voice -
Fax -
Population served (For general municipal use or for a specialty population?) –

Anticipated Number of personnel served -

MEDS Clinic Manager (Planner and Manager during activation):
Name – Job Title/Position-

Work Phone - Work Fax –
Cell Phone - Pager –
Email -
Emergency Contact Method (24x7) -

MEDS Site Medical Director (Needs to be a Physician, PA or NP with prescribing authority who will be on site during an activation)
Name – Job Title/Position-
Work Phone - Work Fax –
Cell Phone - Pager –
Email -
Emergency Contact Method (24x7) -

MEDS Site Pharmacist:
Name – Job Title/Position-
Work Phone - Work Fax –
Cell Phone - Pager –
Email -
Emergency Contact Method (24x7) -

Key Support Groups (Copy and list those groups which will provide medical staff and non-medical volunteers to run this clinic location.)

Group Name –
Contact person :
Name – Job Title/Position-
Work Phone - Work Fax –
Cell Phone - Pager –
Email -
Emergency Contact Method (24x7) -

Attachment M

RHODE ISLAND DIVERSION PLAN

This plan goes into effect at 8:00 A.M. on 6/1/2004. It replaces the *FINAL Rhode Island Diversion Plan* dated 3/1/2004.

All Hospitals and EMS departments/services shall follow this Rhode Island Diversion Plan until further notice.

Table of Contents

TOPIC **PAGE**

A. Participating Hospitals, Facilities and EMS Departments/Services……... 2

B. Daily Roll Calls…… 3

C. Host Hospital Assignment Schedule……... 3

D. Roll Call Procedure…… 3 - 4

E. Hospital Status…… 5

- Accepting…….. 4
- Diverting…… 4
- Condition Red Alert……. 5

F. Bed Availability Information and Definitions…….. 6

G. System "Safety Net" Rules...…… 6

Rules for Northern Hospital Group……. 7

- Hospitals in Northern Hospital Group…….. 7

Rules for Southern Hospital Group…… 7

- Hospitals in Southern Hospital Group……. 7

Rules Regarding "Condition Red Alert" Regardless of Group…… 8

H. Status Reports Outside Daily Roll Call……. 8

Appendix I: Augmented Nextel Roll Call Log……..…… 9

Appendix II: Hospital Nextel Roll Call Log……..…… 10

Appendix III: Excerpted Section 5 of RI Trauma Protocol…… 11

Appendix IV: Diversion Status Reporting Form ……. 12

RHODE ISLAND DIVERSION PLAN

A. PARTICIPATING HOSPITALS, FACILITIES AND EMS DEPARTMENTS/SERVICES

All general acute care hospitals in Rhode Island with emergency departments will participate in roll calls three times per day to determine hospital status. Additionally, selected hospitals and healthcare facilities that do not provide primary acute care emergency department services will participate in roll calls on a more limited basis (8:00 A.M. and 4:00 P.M. only) to test the Nextel Hospital Emergency Communications system. All RI licensed EMS departments/services providing transport to hospitals in RI shall participate in this plan.

General acute care hospitals are categorized into TWO geographic groups (Rhode Island Hospital is included in BOTH geographic groups) for the purpose of ensuring reasonable geographic proximity of available beds for patients at times when one or more hospitals go on "Diverting" status:

GENERAL ACUTE CARE HOSPITALS:

NORTHERN HOSPITAL GROUP:

Landmark Medical Center
Memorial Hospital
St. Joseph/Our Lady of Fatima
Roger Williams Medical Center
The Miriam Hospital
Rhode Island Hospital

SOUTHERN HOSPITAL GROUP:

Rhode Island Hospital
Kent Hospital
Newport Hospital
South County Hospital
Westerly Hospital

OTHER HOSPITALS with ACUTE CARE EMERGENCY DEPARTMENTS:

Women and Infants'
Hasbro Children's
VA Medical Center

BEHAVIORAL HEALTH SPECIALTY HOSPITALS:

Bradley Hospital
Butler Hospital

PARTICIPATING FACILITIES:

Newport Naval Ambulatory Care Center
Narragansett Indian Health Center
RI Airport Corporation

EMS PROVIDERS and REGIONAL DISPATCH CENTERS:

All RI licensed EMS departments/services
Four Regional Fire Alarm Centers and Providence Fire Alarm

B. DAILY ROLL CALLS

All licensed hospitals in Rhode Island with acute care emergency departments participate in roll calls three times per day to determine hospital status. The routine times for the roll calls are 12:00 A.M., 8:00 A.M., and 4:00 P.M. At the direction of HEALTH, augmented roll calls which include diversion status and bed availability **may** be conducted, one or more times per day during roll call, by HEALTH staff or by the Host Hospital using the Augmented Nextel Roll Call Log (see Appendix I). The Host Hospital will conduct roll calls and record diversion status and bed availability onto the Nextel Roll Call Log (see Appendix II) provided by HEALTH. The assigned Host Hospital will turn this log over to HEALTH at the conclusion of the assigned month and/or upon request.

The purpose of such roll calls is to determine hospital diversion status **and** to test the Nextel Hospital Emergency Communications system. Timely participation of all participating hospitals, facilities and EMS departments/services is critical to ensuring that the Nextel Hospital Emergency Communications system in functioning and available for use in the event of an emergency.

C. HOST HOSPITAL ASSIGNMENT SCHEDULE

The Host Hospital is responsible for initiating and conducting the roll calls. All hospitals in Rhode Island with acute care emergency departments will rotate the assignment as Host Hospital according to the following schedule:

Month	**Host Hospital**
January	Newport Hospital
February	Memorial Hospital
March	St. Joseph/Our Lady of Fatima Hospital
April	South County Hospital
May	Miriam Hospital
June	Rhode Island Hospital
July	Kent County Memorial Hospital
August	Landmark Medical Center
September	Roger Williams Medical Center
October	Westerly Hospital
November	Women & Infants Hospital
December	Rhode Island Hospital

At the conclusion of each roll call, the Host Hospital will notify **the Regional Dispatch Centers** [Southern Control (Exeter) and Metro Control (Cranston)] of the diversion status of all hospitals throughout the state by Nextel. Southern Control (Exeter) and Metro Control (Cranston) will each then transmit this information to Fire/EMS services statewide. Providence Fire Alarm, Northern Control (Smithfield) and East Bay Control (Portsmouth) shall monitor each roll call.

D. ROLL CALL PROCEDURE:

The following roll call procedure describes the script of the person at the host hospital responsible for conducting the roll call. The person responsible for conducting the roll call should speak slowly and clearly. Hospitals and facilities are to be called in the order that they are presented on the roll call log (Appendix II). Hospital facilities are included to determine diversion status and their diverting status is noted on the roll call log as per the key at the bottom of the form. Non-hospital facilities are included to verify that their Nextel communications equipment is functioning properly and their response is marked on the roll call log with a check mark to indicate that they responded when called during the roll call. The person responsible for conducting the roll call should follow the script as described below:

1. **Sample roll call message:** *"This is (insert Host Hospital name) initiating the **(insert time)** roll call. When your facility is called please acknowledge and provide your current status."*
2. **Continue the call by stating:** *"Landmark, your status please."* (Landmark should answer within about 5 seconds).
3. **If no answer, call a second time:** *"Landmark, your status please."* (If no answer on second attempt, call the next facility on list).
4. **Follow this process until the end of the roll call list.** When a hospital responds, indicate their status as per the key on the roll call sheet in the box next to the facility name. When recording the response of non-hospital facilities, indicate that they have acknowledged the call by placing a check mark on the roll call sheet.
5. **Once you have contacted all facilities, make a final attempt to contact the non-responding facility(s).** If a facility does not answer over the Nextel, make a note on the call log and contact the emergency department of the non-responding hospital and/or the non-responding non-hospital facility by telephone.
6. **Report the results of the call as follows**: *"This is the recap of the (insert time) roll call, the following hospitals are Diverting: Hospital (insert name)"*.
7. **Confirm receipt of information at the Southern Control Dispatch Center:** *"Host Hospital to Southern Control"*. Await response from Southern Control. Once a response is received, indicate *"This is the Host Hospital reporting **(insert the report as per number 6 above)**"*.
8. **Repeat to confirm receipt of information at Metro Control**: *"Host Hospital to Metro Control"*. Await response from Metro Control. Once a response is received, indicate *"This is the Host Hospital reporting **(insert the report as per number 6 above)**"*.
9. **End the call by reporting**: *"This is the Host Hospital ending the roll call. The next roll call will take place at **(insert time of next roll call)**.*

*Hospital **(insert name)** is required to provide an update on diversion status at (insert time - 4 hours after the current roll call)".*

10. **Update Nextel Roll Call Log:** Review the Nextel Roll Call Log for complete entries for each facility. Be sure to indicate on the dated form at the appropriate time, the diversion status of all hospitals and a check mark for each non-hospital facility that responded. For those hospitals and/or facilities that did not respond, be sure to make a notation in the comments section next to each facility that a follow-up phone call was required.

E. HOSPITAL STATUS:

During roll call and upon request, the hospital emergency department (ED) can report one of three different status designations **(Accepting, Diverting, or Condition Red Alert)**:

ACCEPTING: The hospital is accepting patients from EMS

DIVERTING: The hospital is unable to accept patients from EMS for primary emergency department services (excludes interfacility transfers) and is effectively diverting all patients with the following exceptions:

All hospitals will accept patients with the following conditions:

a. Cardiac arrest/respiratory arrest/respiratory failure
b. Shock as defined by the Shock Protocol in the RI Pre-hospital Care Protocols and Standing Orders
c. Airway obstruction, unmanageable airway or respiratory distress
d. Active labor defined as pregnancy with abdominal pain consistent with labor

If the EMTs attending the patient feel an exception is warranted for any other reason (e.g., patient insistence, minor injury, recent discharge), the EMT must contact Medical Control per protocol and document notification of Medical Control on the pre-hospital EMS report.

Additionally, Rhode Island Hospital/Hasbro Children's ED (*Level I Trauma Center*) will accept the following:

a. Major trauma (as per section 5 of the Trauma Protocol in the RI Pre-hospital Care Protocols and Standing Orders- see Appendix III)
b. Pediatric (age 16 or younger)

*A status of "Diverting" means that the hospital has exhausted all reasonable means of augmenting inpatient and emergency department capacity. A hospital **must** have high-level internal authorization (i.e., by the chief executive officer or, in his/her absence, the senior administrator on call) prior to indicating a status of "Diverting". Any hospital that reports "Diverting" status is required to complete a **"Diverting" Status Situation Report** form* (see Appendix IV) *and fax it to the Department of Health prior to the next scheduled roll call.*

Hospitals reporting "Diverting" status must provide an update to the Host Hospital four hours after indicating "Diverting" status (refer to section entitled "Status Reports Outside of Daily Roll Call" on page 7 of this plan).

CONDITION RED ALERT: "Condition Red Alert" conveys that the hospital or the ED is experiencing an internal disaster. **Diversion is total; no exceptions to diversion are allowed.**

Examples include extreme situations where the hospital has implemented its internal disaster plan. Situations would include extended power failure or radiation/toxic waste exposure.

For any hospital reporting "Condition Red Alert" no exceptions to diversion are allowed.

Any hospital that reports "Condition Red Alert" status is required to complete a ***"Diverting" Status Situation Report*** *form* (see Appendix IV) *and fax it to the Department of Health prior to the next scheduled roll call.*

F: BED AVAILABILITY INFORMATION AND DEFINITIONS

At times identified by HEALTH, HEALTH may require that in addition to diversion status, the hospitals report additional information about hospital inpatient and ED capacity. Augmented information from hospitals will include, but will not be limited to, numbers of current available beds for the following categories:

- **Emergency Department**
  - Include open and staffed beds in the emergency department under normal operating capacity.
- **Critical Care**
  - Include open and staffed critical care beds.
- **Monitored / Telemetry**
  - Include open and staffed monitored or telemetry beds. Include monitored or telemetry beds on step-down units and/or general medical-surgical units.
- **General / Medical-Surgical**
  - Include open and staffed general medical-surgical beds; exclude monitored/telemetry beds on general medical-surgical units included above

Additionally, HEALTH may require that hospitals report the current number of:

- **Admitted patients who are "Holding" in the ED**
  - Include admitted patients that are physically in the ED awaiting an inpatient bed.
- **Surge Capacity**
  - Include patients awaiting inpatient beds that are being held in areas identified in your hospital's surge capacity plan (e.g., PACU, ambulatory care units, auditorium)

G. SYSTEM "SAFETY NET" RULES

Although individual hospitals are allowed to be "Diverting" under the conditions described herein, the overriding objective of the plan is to maintain an EMS "safety net" (i.e., adequate availability of ED services for each geographic area) during "Diverting" status or "Condition Red Alert". To ensure this objective, the following rules apply for each Hospital Group:

"SAFETY NET" RULES FOR NORTHERN HOSPITAL GROUP:

NORTHERN HOSPITAL GROUP:
Landmark Medical Center
Memorial Hospital
St. Joseph/Our Lady of Fatima
Roger Williams Medical Center
The Miriam Hospital
Rhode Island Hospital

1. **No more than two** participating hospitals in the Northern Hospital Group may be on **"Diverting"** status at the same time.

2. If a third hospital in the Northern Hospital Group announced **"Diverting"** status, the Host Hospital will declare an "All-Accepting" condition.

3. If an "All-Accepting" condition is declared in the Northern Hospital Group, all of the six participating hospitals in the Northern Hospital Group will be required to accept patients from EMS until the next roll call.

"SAFETY NET" RULES FOR SOUTHERN HOSPITAL GROUP:

SOUTHERN HOSPITAL GROUP:
Rhode Island Hospital
Kent Hospital
Newport Hospital
South County Hospital
Westerly Hospital

1. **No more than one** participating hospital in the Southern Hospital Group may be on **"Diverting"** status at the same time.

2. If a second hospital in the Southern Hospital Group announced **"Diverting"** status, the Host Hospital will declare an "All-Accepting" condition.

3. If an "All-Accepting" condition is declared in the Southern Hospital Group, all of the five participating hospitals in the Southern Hospital Group will be required to accept patients from EMS until the next roll call.

RULES FOR "CONDITION RED ALERT" REGARDLESS OF GROUP:

A status of **"Condition Red Alert"** by any participating hospital automatically cancels or precludes diversion by ANY other hospital while the "Condition Red Alert" is in effect. While "Condition Red Alert" is in effect, all other hospitals are required to accept patients from EMS.

H: "STATUS REPORTS" OUTSIDE OF DAILY ROLL CALL:

Hospitals that have reported **"Diverting"** status or **"Condition Red Alert"** during the routine roll call are **REQUIRED** to contact the Host Hospital and provide it with an

update on hospital status within four hours of initial notification. For example, if a hospital reports "Diverting" status at 2 P.M., the diverting hospital is required to provide an update within 4 hours. At the next regularly scheduled roll call – 4 P.M. – the diverting hospital would provide an update. If the diverting hospital is still "Diverting" status at 4 P.M., then the next required update would be at 8 P.M. The Host Hospital will record the updated status on the Nextel Roll Call Log.

After the hospital makes its announcement, the Host Hospital will notify Southern Control and Metro Control of any change in hospital status of any hospital throughout the state by Nextel. Hospitals with a status change, must notify the Host Hospital as soon as the decision is made to make the status change. The Host Hospital must notify all other hospitals and Southern and Metro Control of a hospital's status change as soon as it is reported to the Host Hospital. For example, if a **"Diverting"** hospital's status changes to **"Accepting" or "Condition Red Alert",** the Host Hospital will confirm via Nextel that this information has been received by Southern Control and Metro Control as described on page 5, step 7. If a **"Diverting"** hospital remains **"Diverting"** no update is required.

Attachment N

Fatality Management Plan

Rhode Island

Fatality Management Plan

Draft November 2005 ***Draft***

TABLE OF CONTENTS

Preface ---------- iii
I. PURPOSE ---------- 4
II. SITUATION ---------- 4
A. Historical Perspective ---------- 4
B. Current Operations ---------- 5
C. Notification ---------- 5
D. Staffing ---------- 6
III. ASSUMPTION ---------- 7
IV. CONCEPT OF OPERATIONS ---------- 8
A. Tier One-Single Case Fatality ---------- 8
B. Tier Two-Multiple Case Fatality-Single Site ---------- 9
C. Tier Three-Multiple Case Fatality-Multiple Sites ---------- 9
D. Tier Four-Special Case Fatality ---------- 10
IV. Organization And Assignment Of Responsibility (DOH, REIMA, MHRH) ---------- 10
V. Administration And Logistics ---------- 11
VI. Plan Maintenance ---------- 11
VII. Definitions ---------- 11
IX. Specialized Equipment Resources ---------- 12
A. Incident Morgue Requirements ---------- 12
X. Special Teams ---------- 13
XI. Emergency Support Functions ---------- 13
XII. Authorities And References ---------- 13
Communications Annex: (Same as the MCI Plan)
Communications And Emergency Power ---------- 15
CONCEPT OF OPERATIONS ---------- 15
RESPONSIBILITY AND ORGANIZATION ---------- 15
COMMUNICATIONS IN THE EMS AND SUPPORT AGENCIES ---------- 15
Hospitals (radio dial codes & telephone numbers) ---------- 15
Out of state hospital facilities ---------- 18
RI Mobile Command Post ---------- 18
Air Ambulances (Helicopter) Listings ---------- 19
Other - Federal/State/Military/Public Listings ---------- 19
Medical Facilities – State /Military/VA/out of state emergency mutual
Agreement facilities ---------- 20
Riema Mobil Command Post ---------- 21
Operational Capabilities ---------- 21
Vehicle specifications ---------- 21
Vehicle location and accessibility. ---------- 21
Radio communications ---------- 22
Rhode Island Special Response Teams / activation procedure ---------- 23

Regional Map Annex:

Regional Map ---------- 24

PREFACE

The State of Rhode Island Department of Health currently operates a single centralized Office of the State Medical Examiner's responsible for the determination of both the cause and manner of death of approximately 1000 persons per year. The Office of the State Medical Examiner achieves this goal through thorough investigation of the medical records, witness interviews, law enforcement records, inspection of the scene of death, and, in some circumstances, an autopsy. These situations require the support of response agencies and support organizations such as Police, Fire, Emergency Medical Services, the medical community, and Funeral Directors.

The Office of the State Medical Examiner from time to time is faced with fatality incidents that overwhelm the current response capability and require activation of the incident command system, extended working hours, and mutual aid resources from a variety of agencies to manage operations. In an effort to organize the response structure and define the operational organization the Rhode Island Department of Health has facilitated a Fatality Management Working Group. This group is made up of representatives from public and private organizations that have expertise in fatality management and the mitigation of mass fatality incidents. The goal of this plan is to aid in the recognition, organization, and coordination of an efficient deployment of resources to effectively deal with a fatality incident.

Changes to this plan will be directed through the Rhode Island Department of Health, Office of State Medical Examiner and select working groups organized under the Rhode Island Emergency Management Agency's, Domestic Preparedness Planning Committee. Notification of changes to this plan will be disseminated among appropriate state and local organizations.

I.

I. PURPOSE

The purpose of this plan is to describe and identify roles and procedures to implement a system of coordinated response efforts between state government, hospitals, funeral director's and local jurisdictions, during emergency fatality operations. This plan also defines responsibilities of several key agencies assigned to specific emergency operations during the mitigation of a fatality incident. This plan provides for proper coordination of mass fatality incident response activities, and establishes means and methods for the sensitive, respectful, orderly care and handling of human remains in multi-death and/or special case fatality disaster situations.

II. SITUATION

HISTORICAL PERSPECTIVE:

In 1884, the Rhode Island General Assembly authorizes the Governor to appoint medical examiners. The Governor is authorized two examiners in Bristol County, two in Kent County, four in Newport County, eleven in Providence County, and five in Washington County to a term of six years. The medical examiners are required to document "every fact and circumstances tending to show the condition of the body and the cause and manner of death" of individuals "supposed to have come to their death by violence."

In 1956 The Division of Medical examiners is created within the Department of the Attorney-General. The Attorney-General was granted the authority to appoint the Chief Medical Examiner, who was given the authority to appoint 9 county medical examiners to a term of six years. The Medical Examiners authority was expanded to read "The chief medical examiner and the county medical examiners shall make examinations as hereinafter provided upon the bodies of such persons only as appear to have met death from violence, or suddenly when in apparent good health, or when unattended by a physician or in any suspicious or unnatural manner or as the result of an abortion or suspected abortion, or disease resulting from injury…"

In 1956, The Office of State Medical Examiner's is transferred to the Department of Health and the system of county medical examiners is abandoned for a centralize state office of medical examiners. This Legislation more clearly defined the jurisdiction and core functions of the office. Also created was the 14 member State Medical Examiners Commission.

III. CURRENT OPERATIONS

The State of Rhode Island is located in Southern New England and is bordered by Massachusetts to the North and Connecticut to the South and West. Rhode Island is made up of 39 independent cities and towns with a population of approximately one million people. The

The Office of State Medical Examiners (OSME) is currently located at 48 Orms Street, Providence, RI 02904-2283. The office is open Monday through Friday from 8:30AM-4:30PM with a 24/7 capability to respond to deaths throughout Rhode Island. On average, the Medical Examiner's Office receives four (4) to six (6) bodies per day. Current operational tasks within the Office include:

- Screen deaths for public health significance
- Issue death certificates
- Certify death certificates prior to cremation
- Approve organ/tissue for donation or transplant for cases under the OSME's jurisdiction
- Refer health professionals to the Board of Medical Licensure and Discipline or other appropriate licensing entity
- Testify in court regarding the cause and manner of death
- Perform epidemiological studies related to the cause of death
- Emergency Response
- Conduct and participate in training programs for public health professionals
- Provide educational materials to the public and families
- Provide information to assist health professionals provide better care

NOTIFICATION

(Need to add more details about call service/system)
Phone: 401-222-5500 (24/7)
Fax: 401-222-5517
Speech/Hearing Impaired TTY-711
24hr hotline: **401 222- 2948**

TIER ONE- Standard Operating Procedures

TIER TWO- Notification of Director and Activation of ICS

TIER THREE- Notification of Director and in consultation with ICS Team activation of additional resources decentralized operations

TIER FOUR- Special Case Fatality- May require activation of ICS. May involve special media considerations, religious considerations, specialized equipment, specialized resources including (HazMat, Chem-Bio response teams).

STAFFING

To carry on their daily operating procedures the medical examiners office currently staffs two (2) medical examiners, three (3) autopsy assistants and five (5) scene investigators providing 24/7 coverage. On average one (1) to two (2) scene investigators work during business hours (8:30AM-4:30PM) and one (1) works nights, weekends and holidays. The Office of the Medical Examiner currently contracts body recovery/livery service through a single service contractor (Ocean State Livery Service).

IV. ASSUMPTIONS

- This plan is to be used as either a stand alone document for any fatality incident in Rhode Island or in coordination with any superseding federal or state plan deemed relevant to the incident.
- The initial resources within the affected area will most likely be inadequate to process all fatalities.
- Additional resources needed to supplement the Office of the State Medical Examiner in their response to fatalities within the local jurisdictions will be coordinated through the Rhode Island Department of Health and/or the Rhode Island Emergency Management Agency. Accessing the resources is at the discretion of the on scene investigator from the Office of the Medical Examiner in coordination with the on scene Incident Commander.
- Additional State and Federal capabilities may be needed to supplement and assist the local jurisdictions with storing, processing and identifying fatalities. All fatalities resulting from a disaster occurring in Rhode Island will be handled by the Office of the State Medical Examiner.
- Management of an incident will likely shift as the incident escalates or requires an extensive period of time to manage. The Incident Command system provides the scalability and common terminology for expanding the management and control of any event. All responding agencies, including local, state and federal, are to operate within an established incident command or unified command structure.

- All agencies assigned responsibilities in this plan are accountable for developing or updating internal action plans that will ensure a continuing acceptable degree of operational readiness to carry out their responsibilities. Essential to any internal plan is a current listing of responsible individuals and alternates who may be contacted at any time in an emergency.

- To keep this plan current and operational, periodic disaster drills ranging from jurisdiction-specific drills to full-scale statewide exercises.

V. CONCEPT OF OPERATIONS

The Medical Examiners Office will operate using a four (4)-tier approach for fatality response operations.

A. Tier One-Single Case Fatality:

Any death on scene will cause the Incident Commander (firefighter, police officer, emergency medical services) to notify the Medical Examiners Office. After notification through the Incident Command System, the Office of the Medical Examiner will dispatch a Scene Investigator and/or Medical Examiner to the scene of the incident. The Scene Investigator/Medical Examiner arrives only when the scene is determined to be safe and secure.

1. Case reported to the Office of the State Medical Examiner.
2. Investigator collects necessary information from reporting party by telephone – case number is assigned.
3. Investigator drives to scene. Upon arrival meets the reporting party at the scene.
4. Investigator processes the scene (including photography, tagging the body and providing the lock for the pouch) and arranges transport of the remains to the Office of the State Medical Examiner.
5. Body received at the Office of the State Medical Examiner
    a. logged in a book
    b. tags and lock verified
    c. x-rays if needed
    d. stored in a cooler
6. Case folder assembled by case manager, presented at morning meeting, case assigned to pathologist / agent team
7. Postmortem examination
    a. weight and measurement recorded on a yellow card
    b. lock removed and attached to the yellow card
    c. confirmation of ID tag
    d. external examination and diagram / notes and photo- documentation
    e. inventory of personal effects

   f. collection of specimens / evidence as appropriate + requisition forms for testing are filled out
   g. internal examination (including collection of tissue samples for histology, photo – documentation, and other tests as appropriate)
   h. pathologist signs DC, requisitions for additional lab testing, and body release form (except if 24 hours hold is planned)
   i. clean body stored in cooler / freezer (with bag containing personal effects if any) until the time of release to Funeral Home
8. Post examination procedures
   a. Pathologist – dictation, proof, review of records, labs, reports, conferences with involved parties – family, PD, AG, amendment of DC if necessary, finalization of report and closing the case.
   b. Agent – delivery of samples to appropriate lab and evidence if applicable to evidence room
   c. Investigator – obtaining additional information as requested by pathologist
9. Body release to Funeral Home
   a. verification of ID
   b. body release form signed, body with belongings and DC/ burial permit released to Funeral Home
   c. details of the release logged in a log book

B. Tier Two-Multiple Case Fatality-Single Site:

A Multi-case single site fatality incident can include a building collapse, fire or plane crash. Steps for initial notification and logging of case follow same procedures as a Tier One incident. – After notification through the Incident Command System, the Office of the Medical Examiner will dispatch a Scene Investigator and/or Medical Examiner to the scene of the incident. The Scene Investigator/Medical Examiner arrives only when the scene is determined to be safe and secure. The investigator will report to the Incident Commander to assess current operational needs, begin mortuary operations and investigations. The Scene Investigator/Medical Examiner will activate the Incident Command System

Resource needs:
Refrigerated Tractor Trailer Trucks (1 located at scene. 1 located at OSME)
Disaster Portable Morgue Unit (DPMU) Deployed to scene (see specifics in specialized equipment section)

C. Tier Three-Multiple Case Fatality-Multiple Sites:

A Multi-Case Multi-Site fatality incident can include a Hurricane, Earthquake or Disease Outbreak. This type of incident varies a great deal from a tier one or tier two. In a Tier Three fatality response often there is a pre-planning phase of operations (hurricane) and/or recognition of incident escalation. The incident command system has already been activated and response operations are ongoing. The role of the Medical Examiner in a tier three response includes coordination with the Incident Commander to de-centralize and regionalize mortuary operations. The decentralization and regionalization allows for a coordinated allocation of public health staffing and resources. The Medical Examiners Office will decentralize and assign a Medical Examiner Investigator/Public Health Administrator to each of the four regions, Northern, Metro, Southern and East Bay for administration of body recovery and processing. The medical examiner assigned will retain all decision-making authority for mortuary disaster operations in their assigned region. Each region will identify a fatality management site (Ice Rink) and coordinate activities of hospitals in that region for proper body handling and processing. Body recovery operations will be handled through the incident command structure and may involve house-to-house search and recovery. The use of specialized teams may be needed to respond to a tier three-fatality response. The Funeral Directors Association will work with the Medical Examiners taking on lead administration for transport and processing for funerals. First responders in this case may remove bodies if safe from homes to the closest assigned fatality management site in that region.

Resource Needs:
Refrigerated Tractor Trailer Trucks (1 located at fatality management site. 1 located at each hospital and 1 located at OSME).
Disaster Portable Morgue Unit (DPMU) Deployed to fatality management site and each hospital (see specifics in specialized equipment section).

D. Tier Four- Special Case Fatality:

A single or multiple case fatalities may occur involving special circumstances such as chemical or biological contamination. The Incident Commander on scene notifies the Office of the Medical Examiners and requests additional resources if necessary. It may be chemical or biological contamination. A Tier Four Fatality response may involve "special circumstances" requiring additional resources such as unique transportation/extrication from scene or additional involvement with the media (high profile murder case) or special religious considerations.

Potentially contaminated human remains must be decontaminated prior to introducing them into the Office of the Medical Examiners. If feasible, potentially contaminated human remains should be placed into a segregated refrigerated holding area until appropriate decontamination teams can be arranged. Events involving significant numbers of contaminated human remains, the medical examiner may need to contact the

local Emergency Operations Center or Incident Command to request the assistance of specialized teams such as the Regional HazMat and Decontamination Teams, The RI Forensic Anthropology Team (FAR) the Federal WMD (Weapons of Mass Destruction Civil Support Team) or the Disaster Mortuary Operational Response Team (DMORT). Any Tier one, two or three response can involve a Tier four request.

Resource Needs:

VI. ORGANIZATION and ASSIGNMENT of RESPONSIBILITY

(Add Incident Command Structure.)
Establishes the organization that will be relied upon to respond to an emergency. Lists by position what tasks are to be performed.

VII. ADMINISTRATION and LOGISTICS

General support requirements for managing resources, mutual aid agreements, memorandums of understanding, financial records and reporting.

VIII. PLAN MAINTENANCE

Explains the review process. Allows for testing and exercising the plan.

IX. DEFINITIONS

Mass Fatality Incident (MFI): Any situation in which there are more human bodies to be recovered and examined than can be handled by the usual local resources.

One (1) Routine Individual Death: Daily operating procedures will be carried out. The medical examiner is responsible for the dispatch, collection, identification of the deceased, storage for the purpose of ID, establishing COD and MOD and issuing a death certificate.

One (1) Special Case Individual Death: Special accommodations must be determined for transportation, infectious cases, religious or cultural situations.

Death of Multiple Individuals: The Chief Medical Examiner will confer with the Incident Commander or Unified Command to determine the safe and appropriate method for the removal of bodies in the body recovery phase. If feasible, recovered bodies and body parts will be tagged with a number by the Medical Examiner's Response Team. Bodies and body parts should be placed into a body bag or acceptable substitute. The body bags should be removed from the scene and taken to a location designated by the Medical Examiner for further investigation.

Morgue Operations: Depending on the size and nature of the incident, the Medical Examiner will determine where to establish an incident morgue / holding site. This site may be in the existing morgue for that geographical area or it may be a temporary incident morgue site in another location such as a warehouse. The Medical Examiner should configure the morgue operation site considering the physical condition of the victims, the number of victims, and the number of personnel needed to perform such morgue functions as administration, logistics, refrigeration, and operations.

Family Assistance Center (FAC): provides relatives of victims with information and access to services they may need in the days following the incident. FAC removes families from access by the media and curiosity seekers and allows investigators and the Medical Examiner access to families so they can obtain information more easily.

Scene Operations: Recommended that the Medical Examiner obtain equipment to facilitate a scene response. Equipment includes truck, trailer, two tents, one (1) for body storage and one (1) for administrative work. Other equipment needs to be determined according to the Mass Fatality Working Group.?

Federal Emergency Management Agency (FEMA): is an agency of the United States government dedicated to swift response in the event of disasters, both natural and man-made. FEMA coordinates the work of federal, state, and local agencies in responding to floods, hurricanes, earthquakes, and other disasters. Mitigation, preparedness, response and recovery are the four main functions of FEMA's responsibilities.

Disaster Mortuary Operations Response Teams (DMORT): is a federally funded and coordinated team of forensic and mortuary personnel experienced in disaster victim identification. DMORT provides a mobile morgue, victim identification and tracking software, and specific personnel to augment local resources. DMORT is a part of the National Disaster Medical System, a division of the U.S. Department of Health and Human Services.

X. SPECIALIZED EQUIPMENT

A. (Waiting for info from Gary Klienman DHS)
The DPMU can be deployed to the incident site by rail, truck, plane or military transportation.
The DPMU contains over
10,000 individual items including:
Pathology equipment including forceps, scalpels, hemostats etc.
Anthropology Equipment including Measuring devices, instruments etc.
Radiology equipment including a Dental X-ray, 2 Full Body X-ray machines and Developers etc.
Photography/Personal Effects including Camera, film, Ladder etc.
Information Resources including Computers, Fax machines, copiers, forms, WinId2, VIP etc.
Wheeled Exam tables
Support equipment including Partitions and Supports; Electrical Distribution; Plumbing/ Hot water heaters; Personal Protective Gear etc.

B. Incident Morgue Requirements:

(Each fatality Management site should meet minimum requirements listed below)

Convenient to scene
Adequate capacity
Completely secure
Easy access for vehicles
Ventilation
Hot/cold water
Drainage
Non-porous floors
Sufficient electrical capacity
Refrigerated Trucks
Forklift(s)
Fuel - diesel, propane etc.
Communications
Office Space
Rest/debriefing area
Refreshment area
Restrooms
>=8000 sq

XI. SPECIAL TEAMS

(Get detailed descriptions of each team)
Forensic Anthropology Response (FAR)
Disaster Mortuary Response Team
Funeral Directors Association Disaster Response Team
Ocean State Livery Service

XII. EMERGENCY SUPPORT FUNCTIONS

(Get from RIEMA)
Describe role of each ESF in supporting the Fatality Management Plan

XIII. AUTHORITIES and REFERENCES

(Ask Don Williams to update)
Lists laws, statutes, facility rules and regulations and references used in plan development.

General Laws of Rhode Island 1956, Volume 4B, section 23-4-8:

An agent of the Medical Examiners Office after notification shall immediately proceed to the place where the body lies and take charge of it, view it, and make personal inquiry into the cause and manner of death (General Laws of Rhode Island 1956, Volume 4B, section 23-4-8). The state police or any superior officer of the local police or an agent of the office of state medical examiners may Chapter 23-4 of RIGL order the removal of the body from the place of death, upon completion of their investigation as to the cause and manner of death, to the funeral home designated by a family representative of the deceased or to the state morgue or any hospital (section 23-4-9).

COMMUNICATIONS ANNEX

(same as MCI Plan)

REGIONAL MAP

Utilize Mutual Aid Response Plan Regional Map

Appendix O

STATE OF RHODE ISLAND

DEPARTMENT OF HEALTH

PANDEMIC INFLUENZA

PROJECTIONS OF HEALTHCARE UTILIZATION AND COSTS

L. Anthony Cirillo, MD, FACEP
Medical Director, Public Health Emergency Preparedness

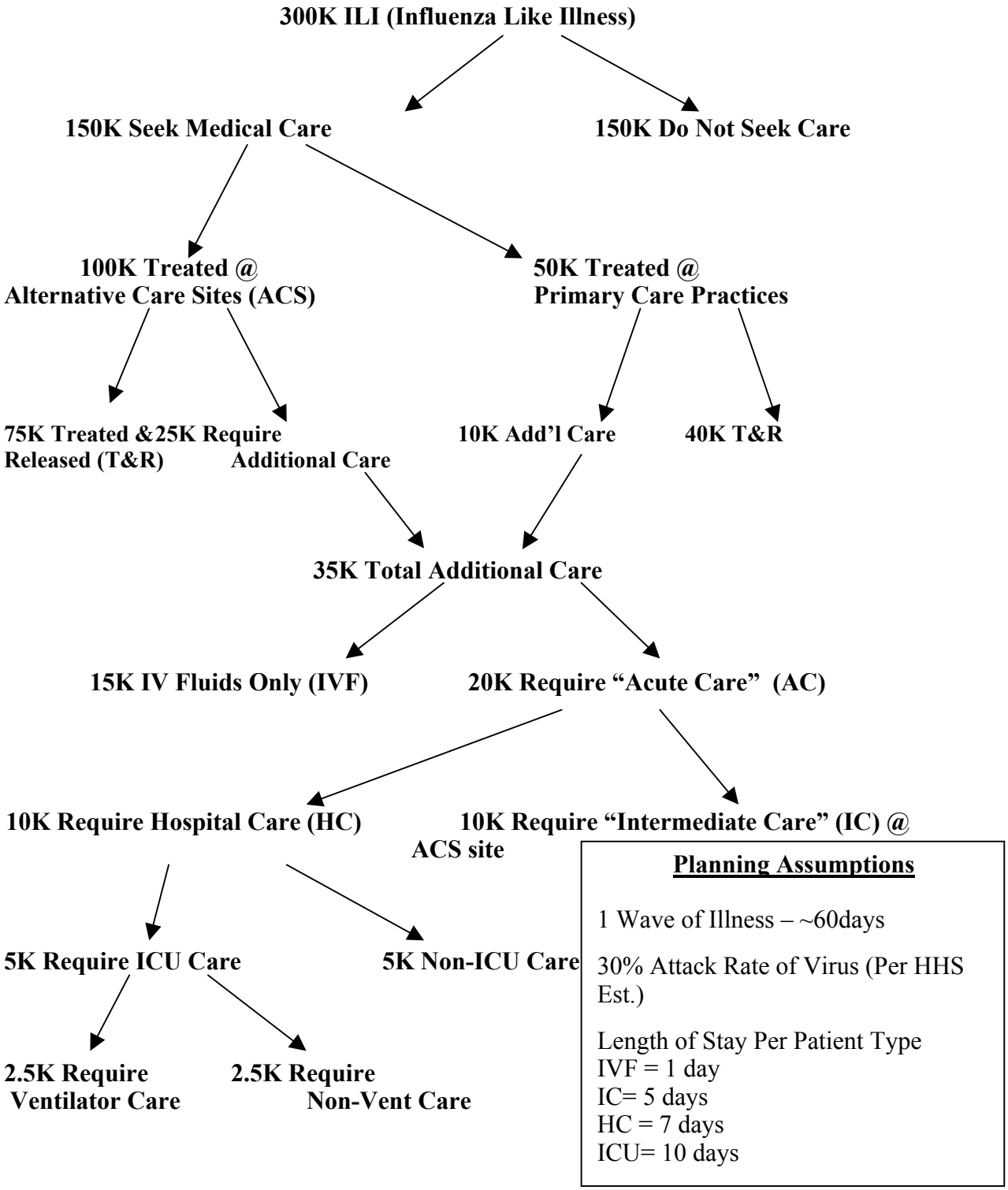
Thomas Kilday
Assistant Director, Hospital Emergency Planning

John Fulton, PhD

Associate Director, Disease Prevention and Control

REVISED ***December 15, 2005***

State of Rhode Island Pandemic Influenza Illness & Patient Care Projections for 8 Week (60 Day) Pandemic Event



Bed Capacity Projections For Alternative Care Sites (ACS)*

Patients Requiring Medical Care Per 8 Week (~60 Days) Wave of Illness = 100K

Breakdown of Patients Per Wave By Level of Care Required

Level of Service	Number of Patients Per 60 Day Wave	# of Patients / Day	Length of Stay (LOS)	TOTAL # of Beds Needed / Day
Treated & Released	75,000	1,250	N/A	N/A
IVF Patients	15,000	250	1 Day	250
Intermediate Care Patients	10,000	167	5 Days	833
TOTAL Hospital Care Patients	10,000	167	7 Days	1,167
- Intensive Care Unit Pts	5,000	83	10 Days	830
-- Ventilated Pts	2,500	42	10 Days	420
-- Non-Vent Pts	2,500	42	10 Days	420
- General Medical Pts	5,000	83	7 Days	581

Healthcare Staffing Assumptions & Projections for ACS Per Site

1 Physician (MD/DO) or Advanced Practice Clinician (NP/PA) Per 50 T&R Patients/12 hours = 100 patients per 24 hours = 2.5 Physician/Physician Extender Providers per 24 Hours

1 Registered Nurse per 50 T&R Patients/ 12 hours = 100 patients per 24 hours = 2.5 RNs per 24 Hours

1 Physician (MD/DO) Per 50 IVF & Intermediate Care Patient = ~2.2 MD/DO Per 12 hour Shift = ~4.4 MD/DO per 24 hours

1 Registered Nurse per 10 IVF & Intermediate Care Patients = ~10.8 RNs per 12 hour shift = ~21.6 RNs per 24 hours

Additional Staff Requirements for ACS

General Aides
Registration
Support / Logistics

Logistical Capacity Projections for ACS

Treat & Release Area = 10 beds/cots
IVF Only Care Area = 25 beds / cots
Intermediate Care Area = 100 beds/cots

Capacity for IVF & Intermediate Care Patients per ACS Facility = 125

Total Number of Patients Per Day Requiring IVF & Intermediate Care (factoring LOS projections) = 1083 Pts / Day

MINIMUM Number of ACS Facilities Required Per Day = 10 / State

*The actual number of ACS required will be higher due to increased patient volumes in urban areas with less utilization in rural areas with a minimum of one per hospital assigned region. In addition, this model does NOT take into account peaks of illness where the demand for healthcare will be higher and may require additional capacity.

COST PROJECTIONS FOR CARE PROVIDED AT ACS FACILITIES

I. Per Patient Supplies / Equipment

(Does not include fixed costs of cots, pillow, blanket)

	Supplies/ Equipment	# Patients / Day	Cost / Day	# of facilities	TOTAL Cost / Day
T&R Patient	$2.60	125	$325	10	$3,250
IVF Patient	$28.78	25	$1,625	10	$16,250
INTERMEDIATE Patient (No 0_2)	$34.07	62	$2,112	10	$21,120
INTERMEDIATE Patient (0_2 NC)	134.57	13	$1,749	10	$17,490
INTERMEDIATE Patient (0_2 NRB)	136.07	8	$1,089	10	$10,890
Total Per Patient Equipment / Supply Cost Per ACS / Day			**$6,900**	**10**	**$69,000**
Total Equipment / Supply Cost For 60 Day Wave Of Pandemic Influenza Event			**$69,000**	**60**	**$4,140,000**

T&R Patient = Oral Rehydration (2), Thermadot (1)
IVF Patient = T&R + Angiocath (2), IVF (2), IV Tubing (2), IV Extension (2), Thermadot (1), Food
INT Patient = IVF + 1 additional IV tubing, extension, IVF, angiocath, 0^2 NRB Mask (10%) / 0^2 Nasal Cannula (15%), Thermadot (1)

II. Fixed Supplies / Equipment At ACS Facilities

	Cost /Unit	# of Unit Per ACS	# of facilities	TOTAL # Of Units	TOTAL Cost / Item
Cots (T&R, IVF Patients)	$38.00	35	10	350	$13,300
Cots (INT Patients)	$235.00	100	10	1000	$235,000
Pillows (Reusable)	$3.50	135	10	1350	$4,725
Blankets	$13.50	135	10	1350	$18,225
0_2 Regulators	$125.00	21	10	210	$26,250
Total Fixed Supplies / Equipment Cost For 60 Day Wave Of Pandemi Influenza Event			**10**		**$297,500**

III. Healthcare Providers Cost At ACS Facilities

	Avg. Salary / Hr	# Providers FTE per 24 hours	# of Facilities	Total # of Provider FTE's	Total # of Provider hours	Food Cost Per Provider Per Day	Total Food Cost Per Day for # FTE's	*Salary Cost* / Day	Total Costs (Salary & Food)
T&R Area (Physician/APC)*	$75	2.5	10	25	250	$15	$375	$18,750	$19,125
T&R Area (RN)	$30	2.5	10	25	250	$15	$375	$7,500	$7,875
IVF / Intermediate Care (Physician)	$75	4.4	10	44	440	$15	$6,600	$33,000	$39,600
IVF / Intermediate Care (RN)	$30	21.6	10	216	2160	$15	$32,400	$64,800	$97,200
Total Healthcare Staffing Cost For Acs Facilities Day		31	10	310	7,440	$15	$39,750	$124,050	$163,800
Total Healthcare Staffing Cost For Acs Facilities For 60 Day Wave Of Pandemi Influenza Event									$9,828,000

* APC = Advanced Practice Clinician (PA/NP)

IV. Cost Projections For Care Provided At Hospitals

Estimated average operating cost per patient / per day at acute care hospital	= $2,500
Estimated additional cost factor per patient for increased staffing costs due to overtime and temporary staff cost and increased patient acuity	= 0.5 X Daily Operating Cost
Estimated Cost ILI Per Patient / Per Day	= $3,750
Estimated Additional Hospital Patients/Day	= 1200
Total Additional Cost Per Day	= $4,500,000
Total Estimated Additional Inpatient Hospital Care	= $270,000,000
Cost For 60 Day Wave Of Pandemic Influenza	
Total Cost For Entire Pandemic Influenza	= $540,000,000

Additional Supplies / Equipment Cost Directly Related To Pandemic

	# Needed	Cost per Glove	Cost Per Pandemic
Gloves (Includes Hospitals, NH, EMS, Primary Care)	32,106,800	$0.25	$8,026,700
Masks w/ Visor Shield (Includes Hospitals, NH, EMS, Primary Care)	9,438,000	$0.80	$7,554,000
N95 Masks (Includes Hospitals, NH, EMS, Primary Care)	2,359,500	$0.58	$1,368,510
Gown (splash proof)	2,359,500	$2.50	$5,898,750
Antiseptic Spray	1,000,000	$1.65	$1,650,000
Antipyretics			$1,250,000
Antivirals (Avg)			$16,500,000
Antibiotics (Avg)			$1,950,000
Probenecid			$1,250,000
Medication Cost			**$41,789,260**

**** *SEE ATTACHED SPREADSHEET FOR BREAKDOWN OF COSTS / EXPENDITURES BY PERIODS PRE-PANDEMIC (PRE), DURING PANDEMIC OUTBREAK (PAN), AND POST-PANDEMIC OUTBREAK (POST).*

PANDEMIC INFLUENZA MODELING ASSUMPTIONS

1. Projections assume an attack rate of 30% (likely to be 20% in adults and 40% in children).

2. Projections assume two equivalent 8 week waves of illness separated by ~3-6 months. Total cost to state would be ~ twice the cost of a single 8 week wave as the majority of costs incurred are due to direct provision of patient care.

3. Projections assume ~20% will develop secondary bacterial respiratory infection requiring antibiotic treatment.

4. Projected numbers of patients is based on average numbers per day. Actual numbers of patients / day will vary based upon the transmission rate and narrowness and height of the "spike" to the curve of numbers of patients.

5. No overall change is projected in the volume and acuity of patients otherwise being cared for at hospitals separate from ILI patients.

6. Cost projections provided for care provided at Alternative Care Sites (ACS) include ONLY cost for healthcare supplies, equipment, and healthcare personnel. Cost projections do not include ancillary / additional costs for security, logistical support (computers, documentation, security, staff food, lavatories).

7. Cost projections for care provided at hospitals is estimated by taking the current estimated daily per patient operating cost and multiplying that by a factor of 1.5 to include higher per hour costs for staffing due to overtime, temporary staff costs, and increased acuity of patient illness.

8. Alternative Care Sites will be operated by the hospital assigned to coordinate the delivery of healthcare within their respective assigned regions as designated by the Department of Health.

9. Healthcare services provided at the ACS will be tracked and documented with billing and payment from third party payers based upon level of care provided.

10. Community based primary care healthcare professionals who cannot sustain a private practice due to absence of staff will provide care at the ACS facilities. These healthcare professionals will be compensated with expected revenues from third party payers.

11. Community based providers will provide care and services if compensated for services providers and are provided with appropriate personal protective equipment and support services.

12. Cost projections do not include additional healthcare costs for services provided for pandemic influenza illness by Emergency Medical Services or at other healthcare sites such as nursing homes and assisted living facilities.

13. Approximately 50% of the healthcare work force will be lost due to acute illness, requirements to provide child/family care at home, and fear of illness.

RHODE ISLAND DEPARTMENT OF HEALTH **17-Dec-05**

PANDEMIC FLU COST / EXPENDITURE PROJECTIONS

	Planning & Exercising	Equipment/ Medications	Personnel	Lab	Communi-cations	Death Manage-ment	Case Investigation / Surveillance	Transport-ation	Education & Training	Patient information	Law Enforce-ment Support	Mental Health Support	Healthcare Cost	**TOTAL COST**
Pre-Pan Flu	1,000,000	66,322,720	$0	248,000	$59,000	$305,900	$0	$0	$200,000	$0	$0	$56,320	$0	$56,338,120
Pan Flu	5,520,000	5,312,558	14,881,000	$0	4,586,295	2,308,950	360,000	1,044,000	150,000	200,000	10,299,520	2,788,952	540,000,000	$574,362,803
Post-Pan Flu	855,000	$0	$0	$0	$0	$0	$120,000	$11,500	$0	$0	$0	152,892	$0	$986,500
	7,375,000	71,635,278	14,981,000	248,000	4,645,295	2,614,850	480,000	1,055,500	350,000	200,000	10,299,520	$2,998,164	$540,000,000	$644,985,107

PLANNING & EXERCISE

Pre - Statewide Tabletop Exercise x 2 @ $125,000 each DOH planning = 3 FTEs @ $80k/FTE Hospital Planning = 17 hospitals x 0.5 FTE x 60K/FTE

Pan - DOH Staff = 150 FTE x $60K/FTE x 0.5 years Hospital Planning = 1 FTE @ $60K/FTE x 0.5 years

Post- DOH Staff = 20 FTE x $60K/FTE x 0.5 years Hospital Planning = 0.25 FTE @ 60K/FTE x 0.5 years

EQUIPMENT
Pre - ACS Fixed Equip =$297,500 ACS Patient Equip=$3,097,516 Gloves=$16,053,400 Masks=$10,651,804 Meds=$24,425,000
Pan - Food & Nutrition=$3,192,000; =$2,120,558
Post - $0
PERSONNEL
Pre - $0
Pan- ACS Healthcare Professional Staffing = $14,881,000
Post - $0
LABORATORY RESPONSE
Pre - DOH Lab Supplies H5 PCR kits = $48,000 Rapid Flu Kits 10,000 kits @ $20/kit = $200,000
Pan - $0
Post - $0
COMMUNICATIONS
Pre - Laptops for DOH EOC = 10 x $1500 = $15,000 Walkie-Talkies for ACS = 10 per site x 10 sites x $25/radio = $2,500 ACS Signage = $35,000 Develop non-print media material: $6500
Pan - Public Health Hotline = 22 staff x 24/7 coverage x 0.5 year = $3,746,700 DOH Media 3 FTE @$60K/FTE x 0.33years=$60K Emergency Communications=13.5FTE @$60K/FTE x .25 years=$267,300; DOH Printing = $300,295 Fax Communications with Healthcare Providers = $5,500/month x 0.33 years = $22,000 Translate materials:$30,000 Distribute material $160,000
Post - $0
DEATH MANAGEMENT
Pre - Supplies = $305,900
Pan - Autopsies / Body Handling $2,308,950
Post - $0

CASE INVESTIGATION / SURVEILLANCE
Pre - $0
Pan - DOH 12 FTEs @ $60K/FTE x 0.5 years = $360,000
Post - DOH 2 FTEs @ $60K/FTE x 1 years = $120,000
TRANSPORTATION
Pre - $0
Pan - Body Transport 7000 x $135/body = $945,000 ACS Supply Transport 10 FTEs x $30k/FTE x 0.33 years=$99,000
Post - ACS Breakdown 10 FTEs @ $30k/FTE x 2 weeks = $11,500
EDUCATION / TRAINING
Pre - Development of CD-ROM & DOH Webcast = $100,000 Train-the-Trainer Program for Infection Control, etc. = $100,000
Pre - Just In Time Training Coordinators 5 FTEs @ $60K/FTE x 0.5 years = $150,000
Post - $0
PATIENT INFORMATION
Pre - $0
Pan - Phone Bank Staff for Patient Calls 10 FTEs @ $40k/year x 0.5 years = $200,000
Post - $0
LAW ENFORCEMENT
Pre- $0
Pan – RI State Police, RI Sheriffs, & DEM personnel overtime
Post - $0

MENTAL HEALTH
Pre- Planning=$56,320
Pan – Support, Hot Line, Support Line, and Coordinator = $1,301,952; Treatment Costs = $1,487,000
Post – Support Line and Coordinator = $55,392; 1% with follow up visits=$97,500
HEALTHCARE
Pre- $0
Pan - Estimated Cost for Hospitals to create surge capacity, including increased staffing and patient acuity = $540,000,000
Post - $0

STATE OF RHODE ISLAND PANDEMIC FLU COST PROJECTION DATA	DEPARTMENT OF HEALTH						15-Dec-05
ALTERNATIVE CARE SITE (ACS) SUPPLIES & EQUIPMENT							
ACS FIXED SUPPLIES (By Patient Types)							
	# per ACS	**# ACS facilities**	**# Needed**	**Cost Per Unit**	**# Days**	**Cost Per Wave**	**Pandemic Cost**
Cots (T&R, IVF Patients)	35.00	10	350	38.00	n/a	13,300	13,300
Cots (INT Patients)	100.00	10	1000	235.00	n/a	235,000	235,000
Pillows (T&R, IVF, INT)	135.00	10	1350	3.50	n/a	4,725	4,725
Blankets (T&R, IVF, INT)	135.00	10	1350	13.50	n/a	18,225	18,225
02 Regulator (Per ACS)	21.00	10	210	125.00	n/a	26,250	26,250
						$297,500	**$297,500**
ACS PER PATIENT SUPPLIES (By Patient Types)							
	# per ACS	**# ACS facilities**	**# Needed**	**Cost Per Unit**	**# Days**	**Cost Per Wave**	**Pandemic Cost**
02 Cylinder (25% INT) 1 PER/PT/DAY	21.00	10	210	$100.00	60	$ 1,260,000	$2,520,000
O2 NRB Mask (10% INT) 1 PER/PT/DAY	8.00	10	80	$2.00	60	$ 9,600	$19,200
02 Nasal Cannula (15% INT) 1 PER/PT/DAY	13.00	10	130	$0.50	60	$ 3,900	$7,800
	# per ACS	**# ACS facilities**	**# Needed**	**Cost Per Unit**	**# Days**	**Cost Per Wave**	**Pandemic Cost**
Bed Pan (INT) 1 PER/PT/DAY	83.00	10	830	$3.50	60	174,300	$348,600
Emesis Basin (IV, INT) 1 PER/PT/DAY	108.00	10	1080	$0.50	60	32,400	$64,800

IV Fluids (IV, INT) 2 PER/PT/DAY	108.00	10	216	$2.00	60	25,920	$51,840
IV Tubing 2 PER/PT/DAY	108.00	10	216	$2.10	60	27,216	$54,432
IV Extension Set 2 PER/PT/DAY	108.00	10	216	$1.19	60	15,422	$30,844
						$1,548,758	**$3,097,516**
ACS FOOD & NUTRITION							
Oral Rehydration Solution (T&R, IVF, INT) 2 PER/PT/DAY	466.00	10	4660	$1.25	60	349,500	$690,000
Patient Food (IVF, INT)	108.00	10	1080	$15.00	60	972,000	$1,944,000
Staff Food	31.00	10	310	$15.00	60	279,000	$558,000
						$1,600,500	**$3,192,000**
ACS HEALTHCARE PROVIDERS							
	# FTEs per ACS /day	# ACS facilities	# Hrs Per Provider Type / Day (#FTE x 12 hrs)	Cost Per Unit	# Days	Cost Per Wave	Pandemic Cost
ACS - T&R MD/PA/NP	2.50	10	250	$75/hr	60	1,125,000	$2,245,000
ACS - RN	2.50	10	250	$30/hr	60	450,000	$900,000
ACS - IVF / INT MD	4.40	10	440	$75/hr	60	1,980,000	$3,960,000
ACS - IVF / INT RN	21.60	10	2160	$30/hr	60	3,888,000	$7,776,000
						$7,443,000	**$14,881,000**
HOSPITAL HEALTHCARE COSTS	**Current Avg Operating Cost Per Bed**	**Total # Inpatient Surge Beds Needed**	**Adjusted Cost Factor**	**Cost Per Bed**	**# Days**	**Cost Per Wave**	**Pandemic Cost**
	~ $2,500	**1200**	**1.5**	**$3,750.00**	**60**	**$ 270,000,000**	**$540,000,000**
MEDICATIONS							
	# patients	**Avg Cost per pt**	**# Needed**	**Cost per Unit**		**Cost per Wave**	
Antiviral Medications (75% total patients)	200,000.00	$50				10,000,000	$20,000,000

Probenecid (75% total patients)	112,500.00	$5				562,500	$1,125,000
Antibiotics (20% total patients)	30,000.00	$30				900,000	$1,800,000
Antipyretics (100% patients)	150,000.00	$1			5	750,000	$1,500,000
						$12,212,500	**$24,425,000**
GLOVES							
	# Patients	**# Per patient / day**	**# Days**	**# Needed**	**Cost per Unit**	**Cost Per Wave**	**Pandemic Cost**
Gloves (T&R - ACS)	75,000.00	4	n/a	300,000	$0.25	75,000	$150,000
Gloves (T&R - Primary Care)	50,000.00	4	n/a	200,000	$0.25	50,000	$100,000
Gloves (IVF - ACS)	15,000.00	16	1	240,000	$0.25	60,000	$120,000
Gloves (INT - ACS)	25,000.00	30	5	3,750,000	$0.25	937,500	$1,875,000
Gloves - EMS	8,160.00	8	1	3,916,800	$0.25	979,200	$1,958,400
Gloves - NH	10,000.00	20	60	12,000,000	$0.25	3,000,000	$6,000,000
Gloves - Hospitals	3,900.00	50	60	11,700,000	$0.25	2,925,000	$5,850,000
				32,106,800		**$8,026,700**	**$16,053,400**
MASKS							
HOSPITALS	**# Per 300 beds**	**Total # beds needed**	**# Needed**	**Cost per Unit**	**# Days**	**Cost Per Wave**	**Pandemic Cost**
N95 Mask - Hospital	4,000.00	~3900	52,000	$0.58	60	$ 1,809,600	$3,619,200
Surgical Mask w/ Face Shield - Hospital	4,000.00	~3900	52,000	$0.80	60	$ 2,496,000	$4,992,000
						$ 4,305,600	**$8,611,200**
ACS	**# Per MD / day**	**# Per staff / day**	**Total # per day**	**Cost per Unit**	**Total Needed (# per day x 60)**	**Cost Per Wave**	**Pandemic Cost**
N95 - ACS	2 x 69	2 x 241	620	$0.58	37,200	21,576	$43,152
Surgical Mask w/ Face Shield - ACS	4 x 69	4 x 241	1,340	$0.80	74,400	59,520	$119,040
					111,600	**$81,096**	**$162,192**

PRIMARY CARE SITES	**# Per MD / day**	**# Per Staff / day**	**Total # per day**	**Cost per Unit**	**Total Needed (# per day x 60)**	**Cost Per Wave**	**Pandemic Cost**
N95 - Primary Care	2 x 69	2 x 241	964	$0.58	57,840	67,094	$134,188
Surgical Mask w/ Face Shield - Primary Care	4x 69	4 x 241	964	$0.80	57,840	92,544	$185,088
					115,680	**321,830**	**$643,660**
EMS	**# Per EMT / day**	**# EMTs Per Vehicle**	**# EMS Units**	**Cost Per Unit**	**Total # Needed**	**Cost Per Wave**	**Pandemic Cost**
N95 - EMS	4	2	340	$0.58	163,200	94,656	$189,312
Surgical Mask w/ Face Shield - EMS	8	2	340	$0.80	326,400	261,120	$522,240
					489,600	**355,776**	**$711,552**
NURSING HOMES	**# RN / day**	**# Patients / RN**	**# Patients**	**Cost Per Unit**	**Total # Needed**	**Cost Per Wave**	**Pandemic Cost**
N95 - NH	2	10	10,000	$0.58	120,000	69,600	$139,200
Surgical Mask w/ Face Shield - NH	4	10	10,000	$0.80	240,000	192,000	$384,000
					360,000	**261,600**	**$523,200**
						Cost Per Wave	**Pandemic Cost**
Surge Capacity / Additional Healthcare Costs For Pandemic Flu						**$306,454,860**	**$612,909,720**

Attachment P

Pandemic Influenza Planning Membership

	David Gifford, MD, MPH	Director of Health
ESF 8 Planning Group		
	William Waters, PhD	Deputy Director
	John Fulton, PhD	Associate Director, Disease Prevention & Control
	Anthony Cirillo, MD, FACEP	Medical Director for Public Health Emergency Preparedness
	S. Beth Cook, RN, MS	Emergency Preparedness Coordinator
	Thomas Kilday	Assistant Director Bioterrorism Planning for Hospitals
	Donald Williams	Associate Director, Health Services Regulation
	Walter Combs, PhD	Executive Director, Environmental Health
	Utpala Bandy, MD, MPH	Assistant Medical Director & State Epidemiologist
	Alysia Mihalakos, MPH	SNS Coordinator
	Becky Bessette, MS	Chief, Office of Women, Infants, & Children (Immunization)
	Kenneth Jones, DrPH	Chief, Biological Sciences
	Maria Wah-Fitta, MS	Lead, Center for Public Health Communications
	Ana Novais	Lead, Center for Health Equity and Wellness
	Annemarie Beardsworth	Education & Outreach Coordinator
Directors' Pandemic Working Group (non-ESF 8)		
	Brigadier General John Enright	National Guard/RIEMA
	Beverly Najarian	Director, DOA
	Jane Hayward	Managing Director OHHS
	Colonel Steven Pare	RI State Police
	Dr. David Gifford	Director, HEALTH
	Michael Sullivan	Director, DEM
	Robert Warren	Executive Director, RIEMA
	Peter Ginaitt	State Representative (has EMS background)

Advisors		
	Center for Biodefense and Emerging Pathogens	Andrew Artenstein, MD, Director
Stakeholders		
	Meetings have been held with the following stakeholders:	
	Disaster Medical Assistance Team (DMAT)	
	RI Association of Fire Chiefs	
	Hospital Association of Rhode Island	
	Hospital Chief Executive Officers	
	Directors' Pandemic Flu Work Group	
	Infectious Disease Physicians	
	Community Health Policy Group	
	Primary Care Physician Advisory Group (PCPAC)	
	Minority Health Advisory	
	RI Department of Health	
	RI Department of Health Executive Committee	
	Rhode Island Emergency Management Agency	
	RI Healthcare Association	
	RI Health Center Association	
	RI Public Health Association	
	Tribal Health Services	
	Volunteer Center of RI	