



Pandemic Influenza Preparedness and Response Plan

**Draft 3.6
For Operation Pandemic Flu Exercise**

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Foreword

The Infectious Disease Epidemiology Program (“Epi”), in the Division of Health Surveillance, is the Vermont government program primarily responsible for detecting infectious disease outbreaks in Vermont and limiting the spread of disease within the state and from state to state. Epi also provides advice and assistance to hospitals and other healthcare providers toward the same mission. Crucial aspects of disease detection are performed by the Public Health Laboratory, and in some cases, the response to an outbreak depends heavily on the Immunization Program and on the Community Public Health Division.

This plan does not stand-alone. This is a Disease Specific Plan under the overall authority of the Department of Health Emergency Operations Plan and the Biological Event Response Plan. Other disease specific plans deal with smallpox, SARS, West Nile Virus, anthrax, and other infectious diseases. Higher-level plans describe response activities that are not specific to pandemic influenza but are broadly applicable to other emergencies. In particular, the departmental incident command structure and the epidemiology emergency organization chart are in higher-level plans. Furthermore, many aspects of response to pandemic influenza are covered in other VDH plans including the Clinic Plan, SNS Plan, and Behavioral Health Plan.

This plan has three major sections. Section I, Introduction, outlines the purpose, scope, and structure of this plan, the incident management system and state support functions, legal authority and legal preparedness, and the roles of various levels of government agencies.

Section II provides some background on pandemic influenza, describes some of the major response functions in coping with a pandemic, and sets out the planning assumptions underlying this document.

Section III is the main body of this plan. Section III is organized by the six phases of a pandemic as described by the World Health Organization in 2005. For each phase, this section describes the objectives to be achieved by the Vermont Department of Health. The objectives are organized under four functions as recommended by CDC: surveillance and epidemiological response, immunization, antiviral medications, and communication. Several of these functions are carried out or assisted by other programs and agencies in cooperation with Epi, including the public health laboratory, the emergency preparedness unit, the communication office, the community public health division, the Vermont Department of Public Safety, and private healthcare providers including hospitals, physicians and nurses, and behavioral health providers. This plan is intended to help coordinate the responses of all programs and agencies.

Annex 1 is also an important component of this plan. It contains guidance and recommendations for cities and towns related to community-based containment measures including isolation, contact management, community-based containment measures, and communication.

Finally, there are several appendices that explain definitions and acronyms, and that describe in detail some of the response activities specific to pandemic influenza.

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July 14, 2006

Section I. Introduction¹

A. PURPOSE

The purpose of this document is to advise health care workers, health care facility administrators, health department officials, emergency management officials, and community officials in appropriate activities toward preparedness for and response during an influenza pandemic. The strategies, guidelines, and tools included in this document are intended to achieve the following objectives:

- Rapidly and efficiently identify increases in ILI and increases in deaths due to pneumonia or influenza
- Rapidly and efficiently identify circulating influenza viral strains and submit to the CDC any specimens that cannot be readily identified by the VDH Lab
- Ensure rapid information exchange among clinicians, public health officials, and administrators of health care facilities about increases in ILI and/or potential novel influenza virus strains
- Rapidly and effectively implement measures to limit or prevent the transmission of influenza and the development of secondary complications
- Continually monitor the course and characteristics of influenza outbreaks and promptly revise control strategies as needed
- Implement effective communication and education strategies for the public, the media, community officials, health care communities, and public health communities to ensure an appropriate response to the developing influenza pandemic
- Coordinate and integrate influenza pandemic preparedness and response planning efforts with other preparedness plans and systems

B. SCOPE AND APPLICABILITY

This plan addresses Vermont's preparedness and response to a worldwide epidemic of influenza caused by a new strain of virus to which the human population has not developed any immunity. It includes those actions that state government would take to save lives and protect public health and safety. This plan concentrates in particular on actions of the Vermont Department of Health. This plan provides for the coordination of actions among VDH, the Federal government (in particular the Centers for Disease Control and Prevention), private healthcare providers, and other agencies of Vermont state government. It also contains guidance and recommendations for local governments and communities.

C. STRUCTURE OF THIS PLAN

This Pandemic Influenza Response Plan is an event-specific annex consistent with and subordinate to:

- The National Response Plan
- The State of Vermont Emergency Operations Plan
- The Vermont Department of Health Emergency Operations Plan
- The Vermont Department of Health Biological Event Response Plan

¹ This plan was prepared by the Infectious Disease Epidemiology program ("Epi"). The Vermont Department of Health would like to express its appreciation to the New Hampshire Department of Health and Human Services' Communicable Disease Surveillance and Immunization program staff for their generous assistance and for letting Vermont borrow from their work. This Pandemic Influenza Response Plan was modeled closely on a plan developed by New Hampshire DHHS in 2004. That in turn was preceded by New Hampshire's first Influenza Pandemic Preparedness Plan in 2001, based on the CDC guidance, *Pandemic Influenza: A Planning Guide for State and Local Officials*, Version 2.1, January 1999. The CDC's most recent pandemic influenza plan guidance, issued in August 2004, guided revisions made to New Hampshire's pandemic preparedness plan and therefore forms the basis of Vermont's plan. Because of similarities in purpose, scope, and response, both New Hampshire and Vermont also used their 2004 SARS preparedness plans as models for influenza pandemic preparedness and response.

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Other event-specific plans on a parallel level as this one include the VDH Smallpox Plan, SARS Plan, West Nile Virus Plan, “Suspicious Package Plan” and various medical treatment protocols including anthrax, plague, brucellosis, and others.

D. INCIDENT MANAGEMENT SYSTEM; STATE SUPPORT FUNCTIONS (SSFs)

The sustained, coordinated efforts required to control pandemic influenza lend themselves to the principles and structure of incident command and management systems. The Vermont Department of Health has developed, practiced, and refined the Incident Command System (ICS); it is an effective organizational structure for responding to public health emergencies that addresses public information, planning, operations, logistics, finance, and administration. The VDH Emergency Operations Plan describes the ICS structure. In an infectious disease event, the State Epidemiologist assumes the position of Technical Advisor.

If an influenza pandemic reaches the status of a public health emergency, Vermont Emergency Management (VEM) will activate the State Emergency Operations Plan (SEOP). The SEOP provides an all-hazards approach to disaster response and recovery and outlines the roles and responsibilities of organizations and State agencies that would likely be involved in an emergency. At the heart of the SEOP are 14 State Support Functions (SSFs). One or more of these SSFs might be activated in the event of a disaster. Each SSF is headed by one primary agency, with one or more support agencies assigned to the SSF to help with operations. VDH is the primary agency for SSF-8, Health and Medical Services, and plays a support role in seven other SSFs.

VDH roles and responsibilities when SSF-8 is invoked for an infectious disease event are described in the Biological Event Response Plan. In summary, in the event of an influenza pandemic, the goal will be to reduce influenza-related morbidity and mortality and keep social disruption and economic loss at a minimum. To meet this goal, VDH will:

- quickly provide accurate, consistent and comprehensive information about influenza and pandemic influenza,
- maximize the use of limited resources,
- monitor the status of the outbreak,
- collect and organize situational information,
- manage staffing needs and requirements,
- monitor and supply persons in isolation and quarantine,
- maintain an inventory of respirators and other personal protective equipment,
- track the status of and procure essential supplies,
- operate special and temporary facilities,
- manage administrative and financial aspects of the response, among other duties, and
- provide mental health and psychological support services.

E. ROLES, RESPONSIBILITIES AND LEGAL AUTHORITIES

The preparation for and response to an influenza pandemic requires a coordinated response by public health authorities, emergency management authorities, and other emergency response entities at the local, state, and federal levels of government.

1. Federal Authority

The Department of Health and Human Services (U.S. HHS) is the U.S. Government’s lead agency for the preparation, planning, and response to pandemic influenza. As such, U.S. HHS will coordinate the U.S. Government’s response to the public health and medical requirements of pandemic influenza. The

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U.S. HHS Secretary's Command Center will serve as the national incident command center for all health and medical preparedness, response, and recovery activities.

As the component of U.S. HHS responsible for disease prevention and control, the CDC will have primary responsibility for tracking pandemic influenza and managing the operational aspects of the public health response. To this end, CDC will augment local and state resources for disease surveillance, epidemiologic response, diagnostic laboratory services and reagents, education and communication, and disease containment and control. As a pandemic unfolds, CDC will post updated guidelines and recommendations on its influenza website <http://www.cdc.gov/flu/>.

HHS has assumed primary responsibility for a number of key elements of the national plan, including:

- Vaccine research and development
- Coordinating national and international surveillance
- Assessing and potentially enhancing the coordination of vaccine and antiviral capacity, and coordinating public-sector procurement
- Assessing the need for and scope of a suitable liability program for vaccine manufacturers and persons administering the vaccine
- Developing a national "clearinghouse" for vaccine availability information, vaccine distribution, and redistribution
- Maintaining a vaccine adverse events reporting system (VAERS) at the national level
- Developing a national information database/exchange/clearinghouse on the Internet.

2. State Authority

Under the State of Vermont Emergency Operations Plan, the Department of Health is lead agency for State Support Function #8, Health and Medical Services. Briefly, VDH would be required to:

- Ensure emergency provision of state governmental resources for medical and personal care
- Facilitate or coordinate the provision of private resources for medical and personal care for disaster victims
- Supplement and support disrupted or overburdened local medical service personnel and facilities
- Perform deceased identification and mortuary services operations
- Relieve personal suffering and trauma.

The reader should refer to the State EOP for additional details and updates. SSF #8 assigns virtually all other state agencies to support VDH in this task, plus non-governmental organizations such as the Red Cross, Vermont Association of Hospitals and Health Systems (VAHHS), Vermont Funeral Directors Association, Vermont Pharmacists Association, and the Vermont State Medical Society. Vermont Emergency Management would coordinate these agencies in support of VDH.

The State of Vermont has designated VDH to oversee the influenza pandemic planning process in cooperation with other state agencies and other partners. VDH will convene necessary experts and advisors as needed to review the pandemic plan and give technical advice. During a pandemic, VDH will be responsible to:

- Make recommendations to local governments, town health officers, health care providers and facilities, and the general public to aid in controlling the spread of influenza
- Maintain surveillance systems to monitor the spread of disease
- Keep the public informed

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- Work closely with VEM, VAHHS, and AHS to limit the spread of disease and coordinate the care and treatment of victims.

The District Offices of the Vermont Department of Health will participate and assist in any efforts to respond to a pandemic as designated by VDH, to serve their local community. Each district office includes, among others, a district director, a public health nursing supervisor, designated nurse epidemiologist, and designated immunization staff. In an infectious disease outbreak, the nurse epidemiologists follow procedures and protocols as outlined by the Epidemiology Field Unit, in the division of Health Surveillance. A district director is in charge of each district office.

In a pandemic, the district office will perform duties that can include, but are not limited to:

- Collect local information regarding disease outbreaks (for example, assist the Infectious Disease Epidemiology Section [Epi] in locating contacts within a community or locating citizens that may be home-bound)
- Assist in logistical support for needs at the local level
- Maintain continuity of priority essential services that are provided by a District Office. If the district office is not able to do this, they will work with Central Office to identify a plan and priority actions to be taken
- Establish clinics
- Assist the local community to establish alternative shelter
- Support public information and education efforts
- Provide information to citizens regarding where local services (such as mental health counseling or local welfare) can be accessed
- Act as a liaison between the public and District, State and federal contacts, and serve as a conduit of information to the public
- Coordinate their roles locally with the Incident Commander of their community
- Follow up on information and data that the State may need in its response efforts in the event of a public health emergency
- Participate in the recovery process following an emergency (for example: conduct sanitary inspections of water supplies, housing, septic systems, public bathing facilities, and, in some communities, food establishments)
- Participate in after-action meetings to discuss the public health emergency response

3. **Local Authority**

Each community in the state should consider developing a continuity of operations plan in case of any widespread outbreak of communicable disease. Each city and town in the state has a local health officer. In many areas of the state, the Local Emergency Planning Committee has the ability to help coordinate joint action by municipalities. In the event of a public health emergency, the VDH Central Office or the district office with jurisdiction may request community assistance with response and recovery efforts as needed and coordinated with the VDH district office. This may include any of the following:

- Assist with public education efforts, including identifying potential audiences for public education, and distributing fact sheets and other educational information to the community
- Assist in identifying community resources
- Assist in the closure of public buildings or carry out isolation or quarantine if necessary
- Assist in establishing temporary mortuaries

4. LEGAL PREPAREDNESS

Legal preparedness is an essential component of pandemic influenza preparedness and response. While no provision of law addresses pandemic influenza specifically, numerous statutory provisions authorize relevant actions. Planning and effective response to an influenza pandemic requires knowledge of the following legal issues:

- Quarantine laws and how they apply in a public health emergency
- Statutes for mandatory vaccination during an infectious disease emergency
- Authority to procure vaccines, antiviral medications, and medical equipment
- Laws and procedures for closing businesses or schools and suspending public meetings during a declared state of emergency
- Medical volunteer licensure, liability, and compensation laws for in-state, out-of-state, and returning retired and non-medical volunteers
- Workers' compensation laws as they apply to health care workers and other essential workers who have taken antivirals for prophylaxis

In general, the federal government has primary responsibility for preventing the introduction of communicable diseases from foreign countries into the United States and between states, and the State and local Vermont jurisdictions have primary responsibility for isolation and quarantine within their borders. By statute, the U.S. HHS Secretary may accept state and local assistance in the enforcement of federal quarantine and other health regulations and may assist the State and local officials in the control of communicable diseases. The CDC, through its Division of Global Migration and Quarantine, is empowered to detain, medically examine, and/or conditionally release persons suspected of having certain communicable diseases. Because isolation and quarantine are “police power” functions, public health officials at the federal, state, and local levels may seek the assistance of their respective law enforcement counterparts to enforce a public health order (see 18 VSA § 617).

The State of Vermont is following recommendations for legal preparedness from the CDC and the Association of State and Territorial Health Officers (*State Health Official Checklist: Are You and Your State Ready for Pandemic Influenza?*). VDH legal counsel confirms that:

- Vermont’s laws and procedures on quarantine, isolation, procuring vaccine and antiviral medications, closing premises, and suspending public meetings have been reviewed and can be implemented to help control an epidemic.
- For some persons such as those providing essential community services, influenza vaccination may be required; for others, vaccination may be recommended.
- Vermont’s statutes regarding medical licensure, liability, and compensation for in-state, out-of-state, returning retired, and non-medical volunteers have been reviewed. Vermont law allows the State to enter into mutual aid agreements for reciprocal emergency management aid and assistance. Parties to such agreements shall be entitled to the same immunities and exemptions as are afforded by statute to Vermont entities engaged in emergency management functions. During a public health emergency, requirements for a professional license shall not apply to authorized emergency management workers. Dentists, nurses, medical students, physician assistant students, student nurses, and emergency medical technicians shall be regarded as authorized emergency management workers and may perform certain medical procedures that fall outside the scope of their usual practice. Emergency management workers from outside the State of Vermont shall possess the same powers, duties, immunities, and privileges as the worker would normally possess if performing his/her regular duties in his/her state of origin.

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- During the course of a public health emergency, rules and regulations regarding licensure can be suspended or modified as necessary to allow health care institutions to use temporary facilities as necessary for the provision of medical care and treatment.
- Workers' Compensation and Unemployment Compensation laws have been reviewed to determine if and how they would or could be used in the event that a person misses work due to being subjected to an order of isolation or quarantine. The State will be considering what provisions need to be in place to allow a person subject to such orders to be compensated for the time that the person is out of work.
- Agreements between the State of Vermont and the Vermont State Employees Association provide that the State may take whatever action is necessary to carry out the mission of the agency in an emergency situation (Article 2 section 1), including changes to rules of conduct and procedure, and other work rules (Article 17 section 2).

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Table 1: Statutory Authority

Statute	Agency	Authority
US Public Law 93-288	Federal government	Provides authority to respond to emergencies and provide assistance to protect public health; implemented by Federal Emergency Management Act
20 VSA § 8(b)(6): Department of Public Safety	Governor Department of Public Safety	Allows Governor to delegate authority to Commissioner to carry out necessary functions to preserve lives of the people of Vermont during an emergency
20 VSA §§ 8 and 9: Powers of the Governor	Governor	Allows Governor to declare a state of emergency as that term is defined in 20 VSA §§ 9 and 2. Gives Governor direction and control of emergency management (see 20 VSA § 8)
18 VSA § 1008: Communicable Disease	Commissioner of Health (VDH)	Authorizes the commissioner to purchase and distribute pharmaceutical agents to prevent the acquisition and spread of communicable disease; this includes vaccines and antivirals. Authorizes VDH to adopt rules to distribute prescription pharmaceuticals in public clinics which may include a vaccine purchase fund for the purchase of antitoxins, serums, vaccines and immunizing agents
18 VSA §§ 126, 127, 130, 131: Public Health Hazard	Commissioner of Health (VDH)	Allows the commissioner to issue complaint to an individual and seek assistance of law enforcement; allows law enforcement officials to take an individual into custody and transport him/her to the place where he/she can be isolated, quarantined or treated; allows due process for such individuals (the right to a hearing)
18 VSA §1001 Reportable Diseases	Commissioner of Health (VDH)	Requires medical or health officials to report any illness or death or laboratory results attributable to an identified reportable disease.
12 VSA §§ 5602 and 5606: Defense & Indemnification of State Officers & Employees	State Employees	Protects State employees who administer immunizations as part of their official duties; see also 20 VSA § 20(b) which provides similar protection to all emergency management workers (whether or not they are State employees)
3 VSA § 844: Administrative Procedure Act	State Agencies	Allows State agencies to adopt emergency rules when there is imminent peril to public health or safety, without going through normal rule making process; see also 20 VSA § 8(b)(1) which allows the Governor to make, amend, suspend or rescind orders, rules and regulations during a state of emergency

Section II. Situation and Planning Assumptions

A. SITUATION

Influenza is a highly infectious viral illness that causes yearly seasonal epidemics reported since at least the early 1500s. In the U.S., complications of influenza cause an average of 36,000 deaths each year, primarily among the elderly. Complications include pneumonia and exacerbations in underlying cardiopulmonary or other chronic diseases. The virus is transmitted in most cases by droplets through the coughing and sneezing of infected persons, but it can be transmitted as well by direct contact. The incubation period for seasonal influenza is typically 1–4 days, with an average of 2 days. For purposes of this plan, a novel pandemic strain is assumed to have the same until found to be otherwise. In seasonal influenza adults are believed to be infectious for up to 5 days from onset of symptoms and children under 12 years for 4 days. However for purposes of this plan and until found otherwise, adults with a novel influenza virus will be considered potentially infectious from the day before symptoms begin through 7 days after resolution of fever, and 14 days for children under 12 years. Young children can shed virus for up to 6 days before their illness onset. Severely immunocompromised persons can shed virus for weeks or months. Typical symptoms include abrupt onset of fever (101°F to 102°F), headache, chills, fatigue, muscular pain or tenderness, sore throat, and nonproductive cough, and may include runny or stuffy nose, substernal chest burning, eye pain, or sensitivity to light. Gastro-intestinal symptoms, such as abdominal pain, nausea and vomiting, may also occur rarely, and are more commonly seen in children than adults. An annual influenza vaccination is the best method of protection against influenza. Other measures, such as frequent handwashing, staying home when sick, and the institution of public health measures for universal respiratory hygiene and cough etiquette, will help stop the spread of influenza in communities as well as in health care facilities.

There are three types of influenza viruses: A, B and C. Types A and B cause widespread outbreaks of influenza illness each year. Influenza A and B possess two surface glycoproteins: the hemagglutinin (H) and neuraminidase (N). Influenza A viruses are further subdivided into subtypes dependent on differences in these surface glycoproteins. A minor change in these antigens (antigenic drift) may result in epidemics, since incomplete protection remains from past exposure to similar viruses. A major change (antigenic shift) may result in a worldwide pandemic if the virus, for which humans have no protection, is efficiently transmitted from human to human. Antigenic shift occurs only with influenza A viruses.

Influenza viruses are distinctive in their ability to cause sudden, pervasive illness in all age groups on a global scale. Previous pandemics, however, caused disproportionate illness and death in young, previously healthy adults. Also, new data from recent epidemic years show that young children are at increased risk for complications, hospitalizations, and death from influenza. Within the 0- to 4-year-old age group, hospitalization rates are highest among children 0 to 1 years of age and are comparable to rates reported in persons ≥65 years of age. Influenza viruses present biological threats because of a number of factors, including a high degree of transmissibility, the presence of a vast reservoir of novel variants (primarily in aquatic birds), and unusual properties of the viral genome. Recently, several subtypes of avian influenza A have been shown to cross the species barrier and infect humans in Asia (1997-present), in Europe (2003), and in North America (2003-2004). Such occurrences are reminders that a novel strain could occur at any time, with the potential for efficient person-to-person transmission. With the increase in global travel, as well as urbanization and overcrowded conditions, global epidemics due to a novel influenza virus are likely to quickly spread around the world.

An influenza pandemic is considered to be a high probability event. Given the potential for rapid virus transmission and evolution, there may be as little as one to six months warning before outbreaks begin in the United States. Outbreaks are expected to occur simultaneously throughout much of the country and in

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the State as well, preventing the sharing of human and material resources that normally occur in most other natural disasters. The impact of the next pandemic could have devastating effects on the health and well-being of Vermont citizens. Estimates suggest up to **217,000** persons (approximately 35% of the State's population) could become clinically ill (Centers for Disease Control and Prevention [CDC] 2004 draft guidance). Further predicted complications include a shortage of vaccine and antiviral agents, shortage of hospital beds and medical equipment, and the increased risk of exposure and disease for health care providers and first responders, leading to shortages of medical staff.

1. Surveillance and Epi Response

The purpose of surveillance is to monitor influenza morbidity and mortality in Vermont and to detect any unusual virus subtypes, particularly a novel virus strain that might signal the beginning of a pandemic. Most likely, a novel virus strain will emerge in a setting outside the U.S. but could emerge in the U.S. and even in Vermont.

Nationally, surveillance for influenza has four main components:

- *Virologic surveillance*: Approximately 75 U.S. collaborating laboratories that are part of the World Health Organization's (WHO) Influenza Surveillance Network and 50 National Respiratory and Enteric Virus Surveillance System laboratories report the number of clinical specimens tested for influenza each week, and the number of positive results by virus type (A or B) and subtype.
- *Surveillance for influenza-like illness (ILI)*: Approximately 1,000 sentinel health care providers around the country report the total number of patients seen each week, and the number of those patients with ILI by age group.
- *Surveillance for influenza and pneumonia deaths*: The Vital Statistics Offices of 122 U.S. cities report each week the percentage of total deaths caused by influenza and pneumonia.
- *Influenza activity levels*: State and territorial epidemiologists assess influenza activity levels in their respective states each week and report the activity as widespread, regional, local, sporadic, or no activity.

Vermont law requires health care providers and laboratories to report diseases of public health importance to the VDH Surveillance Division. This includes influenza outbreaks and pediatric deaths. Surveillance systems currently in place help determine the extent of illness and current circulating influenza virus subtypes. The systems are modeled after the national influenza surveillance system and consist of:

- *Virologic surveillance*: The Vermont Department of Health Laboratory (VDH Lab) isolates and subtypes influenza viruses year round and transmits these data electronically to the Centers for Disease Control and Prevention (CDC) via the Public Health Laboratory Information System (PHLIS). The VDH Lab sends to CDC a sampling of isolates from early, mid and late flu season as well as any unusual specimens for further antigenic characterization. The VDH Lab provides influenza testing free of charge to sentinel reporters and health care providers in facilities such as group homes and long-term care facilities reporting outbreaks of ILI or unusual cases of ILI.
- *U.S. Influenza Sentinel Provider Surveillance System participation*: Approximately twelve volunteer Vermont health care providers (specializing in family practice, internal medicine, emergency medicine, pediatric, or student health) participate in this system and report the number of patient visits for ILI by age group and the total number of patient visits each week during the influenza season (beginning of October through mid-May). Several sentinel providers continue to report weekly during the summer months to contribute to establishing a baseline for ILI activity in the summer months and to help detect any unusual influenza virus subtypes.

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- *Syndromic Surveillance*: ILI activity in the emergency department and hospital settings is monitored year-round at the hospitals participating in Vermont's Early Aberration Reporting System (EARS). Activity in the general respiratory and viral respiratory categories correlate well with manual ILI surveillance as conducted by sentinel providers. These data provide information on demographics and geography of patients seen.
- *Pneumonia and influenza-related deaths*: Pediatric influenza-related deaths are reportable in Vermont. Vermont does not participate in the Vital Statistics Office 122-city reporting program.
- *Estimated influenza activity*: Overall influenza activity in the State is based on reports of ILI by sentinel providers; reports of ILI outbreaks by schools, long-term care facilities and other institutional settings; increased fever or respiratory rates reported through the emergency department and hospital admissions syndromic surveillance system; and reports of laboratory-confirmed influenza. In the event of a pandemic, data from other syndromic surveillance systems will be used as appropriate.

2. Influenza Immunization

Past pandemics have been characterized by multiple waves of disease: a first wave lasting six to eight weeks, followed by second and third waves several months later. Although it is not possible to predict how quickly a novel virus could arrive in the U.S., the planning time horizon could be short.

The current influenza vaccine manufacturing procedure is a complex process that requires six to eight months before large amounts of vaccine are available. Ordinarily vaccine virus strains for the annual influenza season are selected in January/February for vaccine distribution in August/September. This vaccine would not be effective against a newly emerged pandemic virus strain. A new virus strain might not appear during the winter months, when influenza viruses normally circulate, but could emerge as a threat at any time of year.

Because of the long production period required, vaccine may not be available prior to the arrival of the novel virus in the U.S. If vaccine is available, it is likely to be in short supply. However, when the same novel virus reappears in the second and third pandemic waves several months later, vaccine will likely be available. Influenza vaccine will be of significant value in preventing morbidity and mortality during the latter stages of a pandemic.

There are other factors worth mentioning that may complicate production. The vaccine is grown in embryonated chicken eggs, and availability of large quantities of eggs on short notice is uncertain. In addition, avian influenza virus cannot be grown in embryonated chicken eggs because it kills the embryo. With a novel virus, two doses of vaccine may be required to achieve robust immunity. The first dose may confer some immunity, but immunologic response after a single dose is believed to be poor. Therefore, a second dose should be given 30 days after the first. This would further lengthen the time it would take to achieve high levels of immunity in the population.

The vaccine for the annual influenza season, while ineffective against the novel strain, would be of value in preventing secondary infection with the previously circulating virus strains.

The implication of the above is that while vaccination remains important, planners must be mindful that other strategic responses, such as maintaining strict infection control practices and managing hospital surge capacity, may be equally or more important, especially during the initial stages of the pandemic.

Because of the anticipated vaccine shortage in the first 6 to 8 months of a pandemic, the CDC recommends that initial supplies be administered in a prioritized manner to targeted groups. As

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information about the impact of the novel virus becomes available, recommendations will be formulated at the national level and will be adapted by the State public health officials, depending on local factors.

VDH has adopted interim priorities for vaccine administration, shown from highest to lowest priority. These groups are consistent with current CDC guidelines and with priorities identified by New Hampshire, Massachusetts, Canada and the UK, but could change based on the epidemiological impact of the pandemic. Interim priority groups are listed in Appendix 3 and are as follows:

- Health care workers who care for patients in acute and long-term care facilities and home care settings, public health workers involved in vaccine delivery effort, first responders, and household members of these groups
- Workers performing vital community services (such as public safety and order; maintaining utility service and essential transportation; working on production of influenza vaccine) and household members of these groups
- Persons at high risk of developing severe outcomes based on age, underlying conditions, or residence in a long-term care facility
- Household contacts of persons with high-risk medical conditions
- Persons not included in groups 1-4

If CDC assigns responsibility for distributing vaccine to VDH, the department will activate its Clinic Plan. The Community Public Health Division maintains and administers the Clinic Plan, which is an annex to the VDH Emergency Operations Plan.

Monitoring distribution and use of vaccine and vaccine adverse events will be necessary during a pandemic. Currently, there are systems in place to monitor the distribution of influenza vaccine for pediatric use during a normal influenza season (as this vaccine is purchased and distributed by the VDH IZ program). Additionally, providers report adverse events to the national Vaccine Adverse Events Reporting System (VAERS) or indirectly through the VDH IZ program. However, no comprehensive systems are currently in place to monitor the distribution and use of influenza vaccine. These systems will be necessary during a pandemic situation when vaccine supplies are likely to be limited. Additionally, it is likely that at the very least supplemental systems will be necessary to monitor adverse events. Such needs are presently being considered and will be incorporated into future additions of this plan as they become available.

3. **Antiviral Medications**

Antiviral medications may play an important role for the control and prevention of influenza, especially in the event that vaccine is not available. Background information for clinicians on antiviral agents for influenza can be found on the CDC website at <http://www.cdc.gov/flu/professionals/antiviralback.htm>. However, supplies of antivirals are currently far from sufficient to provide prophylaxis or treatment for the population, and there is only a limited stockpile of approved antivirals, for influenza pandemic management purposes, at the national level. Similar to planning for vaccine distribution, planning should be considered for different scenarios, including:

- Federal purchase of the existing supply and distribution to the states via SNS managed inventory.
- State purchase of antivirals using emergency funds

As with distributing vaccine, if VDH obtains and distributes antiviral medications from the SNS the department will activate its SNS Plan and its Clinic Plan.. The Health Protection Division maintains and administers the SNS Plan, which is an Annex to the VDH Emergency Operations Plan. If antiviral

SECTION II. SITUATION AND PLANNING ASSUMPTIONS

medication is obtained from sources other than the SNS, such as existing community caches, then the VDH clinic plan alone will be activated.

Prophylaxis

The adamantines – amantadine and rimantadine – are approved for prophylaxis (preventive care). The neuraminidase inhibitor oseltamivir is an alternative option for people age 13 or older.

Identification of influenza within a community, based on either isolation of the pandemic strain or an increase in ILI, should be the trigger for initiating prophylaxis. As with vaccine, recommendations for prioritizing antivirals will be made at the national level, and State public health officials will review these recommendations and revise as needed, based on local factors.

Therapy

Amantadine and oseltamivir are approved for therapy (treatment) for all age groups. Rimantadine is approved for therapy for people age 13 and older, and zanamivir is approved for treatment for people age seven and older. Therapy is effective only if offered within two days of developing symptoms. As with prophylaxis, recommendations for priority groups for therapy will be formulated at the national level but allocations will be determined by VDH. Distribution of drugs for therapy is a challenge given the limited amount available, the large number of points of care, and the need to begin treatment within two days of symptom onset.

In the absence of State or federal purchase of drugs, the role of the State will consist mainly of providing physicians with guidelines for appropriate use of antivirals. If there is federal or State purchase, in addition to providing guidelines, the State will need to determine how drugs will be distributed and whether it will require any controls for dispensation of drugs, such as the necessity of a positive rapid test. Public education will be important given the scarcity of antivirals. VDH guidelines for use of antiviral medications will probably change as a pandemic spreads in Vermont. Interim priorities are described below in Appendix 3 to this document. VDH will use the Health Alert Network (HAN) and possibly a provider “hotline” to disseminate information to clinicians as it becomes available.

4. **Communication**

Strategic communication, based on proven crisis and emergency risk communication principles, is an essential part of a comprehensive public health response to pandemic influenza. Effective communication is a resource multiplier – guiding people to take the appropriate actions to protect health and safety, maintain social order, and make the best use of limited resources – to save lives.

In preparing for, responding to, or recovering from any public health emergency, the Vermont Department of Health will follow its Crisis and Emergency Risk Communication (CERC) plan. The CERC plan includes the policies, procedures and resources that will be used to communicate quickly, credibly and effectively with the public, the news media, health care providers, special populations, community leaders and key partners. This plan is maintained and managed by the Health Department’s Communication Office, and is an annex to the VDH Emergency Operations Plan. When the Vermont Department of Health activates its Incident Command System (ICS), a Lead Public Information Officer is part of the ICS command staff, directing communication activities.

The communication plan for pandemic influenza outlined here is a supplement to the CERC plan, and is designed to coordinate as much as possible with similar plans by the World Health Organization, the Centers for Disease Control and Prevention, the U.S. Department of Health and Human Services,

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bordering U.S. states, the province of Quebec, hospitals and other partner organizations within Vermont.

Communication preparedness for an influenza pandemic outlined in this plan follows seven key risk communication concepts identified by CDC:

- An influenza pandemic will generate immediate, intense, and sustained demand for information from the public, healthcare providers, policy makers and the news media.
- Timely dissemination of accurate, science-based information about pandemic influenza and the progress of the response will build public trust and confidence.
- Coordination of message development and release of information among federal, state, and local health officials and affected institutions (a “one voice response”) is critical to avoid confusion that can undermine public trust, raise fear and anxiety, and impeded response measures.
- Guidance to community members about how to protect themselves and their family is essential for crisis management.
- Information should be technically correct and sufficiently complete to support policies and actions without being patronizing.
- Information presented during an influenza pandemic should omit speculation, over-interpretation of data, overly confident assessments of investigations and control measures, and comments related to other jurisdictions.
- Educating and training healthcare workers and public health staff about media relations and public health communication are essential.

B. PLANNING ASSUMPTIONS

The *Vermont Pandemic Influenza Response Plan* is based on the following assumptions:

- A novel influenza virus strain will most likely emerge in a country other than the United States or Canada. (It could emerge first in the United States and even possibly in Vermont, but this plan assumes that it will not.)
- The novel influenza virus will have properties consistent with known human influenza virus.
- The supply of antiviral medications used for prevention and treatment of influenza will be very limited.
- The federal government will assume the responsibility of influenza vaccine research, development, and procurement.
- Moderate or severe shortages of vaccine will exist early in the course of the pandemic and possible that no vaccine will be available for 6 to 9 months.
- All persons will need two doses of vaccine to achieve optimal antibody response to a novel influenza virus strain.
- The federal government has limited resources allocated for State and local plan implementation, and therefore the State will provide supplementary resources in the event of a pandemic. This may include the redirection of personnel and monetary resources from other programs.
- The federal government has assumed the responsibility for developing materials and guidelines, including basic communication materials for the public on influenza, influenza vaccine, antiviral agents, and other relevant topics in various languages; information and guidelines for health care providers; and training modules. Until these materials are developed, the State has the responsibility to develop such materials for its citizens.
- Emergency response, including maintenance of critical services and surge capacity issues are included in the State Emergency Operations Plan (SEOP) State Support Function 8 (SSF-8), and should not be duplicated in the pandemic planning process.

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Phase 6 – Pandemic Period – Increased and sustained transmission in general population

Section III. Concept of Operations

A. Introduction and Pandemic phase chart

The response to pandemic influenza will use much the same infrastructure as that needed for response to any public health emergency. However, there are areas that are specific to pandemic influenza and therefore require specific consideration. These priority areas are 1) surveillance, 2) immunization, 3) antivirals, and 4) communication. An overview of each priority area is in Section I. This plan focuses on preparedness and response objectives for each of these priority areas, and addresses them by pandemic influenza phase defined by the WHO in 2005. The pandemic phases are outlined in the following table. Specific objectives for each priority area by pandemic influenza phase follow. Activities listed in the early inter-pandemic phases are cumulative, and should be continued in subsequent phases as appropriate.

2005 Phases	Revised WHO Flu Pandemic Phase Chart ²
Phase 1	Inter-pandemic period: No new influenza virus subtypes have been detected in humans. Influenza virus subtype that has caused human infection may be present in animals; if so, the risk of human infection or disease is considered low.
Phase 2	No new influenza virus subtypes have been detected in humans. However, circulating animal influenza virus subtype poses substantial risk of human disease. <i>VDH EOC Activation Level I</i>
Phase 3	Pandemic Alert: Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact. <i>VDH EOC Activation Level I or II</i>
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. No cases in US or Canada. <i>VDH EOC Activation Level II, III or IV</i>
Phase 5	Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk). Still no cases in US or Canada. <i>VDH EOC Activation Level II, III, or IV</i>
Phase 6	Pandemic period: increased and sustained transmission in general population. <i>6.1 Cases or outbreaks in US or Canada, but not in VT: VDH EOC Activation Level II, III, or IV</i> <i>6.2 Single isolated case suspected in VT VDH EOC Activation Level II, III, or IV</i> <i>6.3 Single isolated case confirmed in VT VDH EOC Activation Level II, III, or IV</i> <i>6.4 Localized outbreaks in VT, cases less than capacity VDH EOC Activation Level III or IV</i> <i>6.5 Widespread outbreaks in VT or cases exceed capacity VDH EOC Activation Level IV</i>
	Post-pandemic period Return to inter-pandemic period.

² WHO global influenza preparedness plan, 2005, Table 1, page 7.

SECTION III – CONCEPT OF OPERATIONS

Phase 6 – Pandemic Period – Increased and sustained transmission in general population

B. OBJECTIVES FOR VDH:

B1. Surveillance and Epidemiologic Response:

B1a. PHASES 1 & 2 – INTER-PANDEMIC PERIOD

Phase 1: No new influenza virus subtypes have been detected in humans. Influenza virus subtype that has caused human infection may be present in animals; if so, the risk of human infection or disease is considered low.

Phase 2: No new influenza virus subtypes have been detected in humans. However, circulating animal influenza virus subtype poses substantial risk of human disease.

• VDH Incident Command System and Health Operations Center are not activated (Level I).

B1a. Surveillance – Phases 1 & 2

- Epi will:
 - Maintain existing surveillance systems, including monitoring pediatric influenza deaths
 - Encourage sentinel providers to send specimens collected on a sample of patients with ILI during the October to May influenza season to VDH Lab
 - Ensure that at least the minimum number of sentinel providers regularly report their weekly ILI data to the CDC via the Internet year round
 - Monitor sentinel provider data weekly for completeness and accuracy during the flu season and occasionally out of season.
 - Provide feedback and maintain contact with sentinel providers to encourage reporting and follow-up on unusual reports
 - Assess general respiratory disease activity level daily at Vermont hospitals participating in EARS
 - Assess the overall influenza activity level in the State (widespread, regional, local, sporadic, or no activity) and report to the CDC weekly year-round
 - In coordination with the VDH Communication Office, provide education and recommendations to health care facilities, health care providers, and the general public regarding the prevention, detection and control of influenza including lab testing
 - Develop a contingency plan for enhancing disease-based surveillance, such as increased frequency of reporting and methods to monitor hospitalized cases or deaths

- VDH Lab will:
 - Perform influenza testing, type and subtype influenza culture isolates, and send representative and unusual isolates to the CDC for further antigenic characterization
 - Require a travel or poultry exposure history for each patient whose specimen is received from medical providers
 - Transmit influenza data (positives and negatives) to the CDC electronically via PHLIS each week
 - Provide influenza testing free of charge to health care providers for patients in facilities such as group homes and long-term care facilities reporting outbreaks or unusual cases of ILI
 - Develop a contingency plan to accommodate increased virologic surveillance, including laboratory surge capacity around staffing, training, supplies and equipment, and safety issues
 - Maintain Biosafety Level (BSL) 2 laboratory conditions
 - Institute surveillance for ILI among laboratory personnel exposed to or working with novel influenza viruses (see VDHL Bloodborne Pathogens Exposure Control Plan)

- VDH Lab Director will ensure there are sufficient staff fully trained for influenza testing

SECTION III – CONCEPT OF OPERATIONS

Phase 6 – Pandemic Period – Increased and sustained transmission in general population

B1b. PHASE 3 – PANDEMIC ALERT

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.

- VDH Incident Command System and Health Operations Center are not activated (Level I).
-

B1b. Surveillance – Phase 3

- Continue activities initiated in previous phase.
- Epi will:
 - Monitor recommendations from the CDC for any additional surveillance activities that should be undertaken and travel warnings that should be issued, and revise for Vermont distribution.
 - Provide up-to-date surveillance recommendations and travel warnings to healthcare providers; remind health care providers to obtain travel or poultry exposure history on all patients to be tested for ILI.
- Epi and VDH Lab will:
 - Ensure that all inter-pandemic surveillance activities are underway regardless of the time of year, and that VDH Lab and sentinel providers are reporting data to the CDC each week
 - Review contingency plans for further enhancing influenza surveillance if efficient person-to-person transmission of the novel virus is confirmed
- VDH Lab will:
 - Routinely provide HAN alerts to all clinical labs.
 - Subtype all influenza A viruses identified in clinical specimens and immediately report to the CDC any that cannot be subtyped
 - Obtain reagents from the CDC (when they become available) to detect and identify the novel strain
 - Review each specimen received for travel or poultry exposure history; perform PCR testing as warranted.

B1c. PHASES 4 & 5 – PANDEMIC ALERT

Phase 4: *Small cluster(s) with limited human-to-human transmission (not in the US or Canada) but spread is highly localized, suggesting that the virus is not well adapted to humans.*

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

- VDH Incident Command System is partially activated (Level II)
-

B1c. Surveillance – Phases 4 & 5

- Continue activities initiated in previous phases.
- Epi will:
 - Contact participating sentinel providers to stress the importance of complete and timely reporting
 - Recruit and enroll additional sentinel providers, if necessary, to maintain the minimum of ten regularly reporting providers.
 - Implement enhanced surveillance for ILI cases meeting specific criteria established by CDC
 - Review and refine existing protocols for responding to a reported suspect case
 - Consider alternate emergency department reporting procedures for selected Vermont hospitals not currently participating in syndromic surveillance
 - Consult with CDC Quarantine Office and consider appropriate options for screening travelers to Vermont from countries where an epidemic of a pandemic strain has occurred.
 - Identify special populations at risk for exposure to a pandemic strain (such as refugee groups and student groups from areas with human-to-human transmission) and develop appropriate outreach strategies.

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Phase 6 – Pandemic Period – Increased and sustained transmission in general population

- Exercise a contingency plan for enhancing disease surveillance; for example, more frequent reporting, or methods to monitor emergency department visits, hospital admissions, and/or deaths, such as electronic reporting of hospital admissions, electronic laboratory reporting of outpatient confirmed influenza within 24 hours of identification; and rapid reporting of influenza-associated deaths
- Newport and St. Albans District Offices: anticipate border crossing issues, traveler screening
- Intensify communication with health care providers
- Monitor public call volume, request hotline when needed
- VDH Lab will:
 - Preposition flu collection kits at providers' offices
 - Reinforce safety guidelines at clinical labs
 - Implement contingency plan for handling substantially more influenza specimens than usual.
 - Request that private laboratories in the State assist with other routine testing when capacity of VDH Lab is reached, per previously established agreements *[Do these agreements exist?]*

B1d. PHASE 6 - PANDEMIC PERIOD

Phase 6: Pandemic phase: increased and sustained transmission in general population.

- VDH Incident Command System and Health Operations Center are partially activated (Level II) and move to full activation (Level III or IV) when the situation warrants.
-

B1d1. PHASE 6.1: CASES OR OUTBREAKS IN US OR CANADA BUT NOT IN VERMONT

B1d1. Surveillance and Epi Response

- Continue activities initiated in previous phases.
- Epi will:
 - Implement the contingency plan for enhancing disease surveillance based on specific CDC criteria
 - Institute supplementary surveillance systems (e.g., influenza-related hospitalizations and deaths)
 - Monitor all alerts and guidelines from CDC, including case definition and exposure criteria
 - Disseminate travel advisories to clinicians, schools, colleges, businesses, and organizations likely to be involved in interstate or international travel
 - Respond to inquiries from clinicians, schools, colleges, businesses, organizations and the public; request info line as needed
- Epi and VDH Lab will:
 - Maintain frequent communication with neighboring states and Quebec
 - Screen clinician requests for lab testing; require documentation of travel or poultry exposure history, exposure, and onset
 - Limit lab testing to cases meeting CDC criteria
 - Work with federal partners to provide healthcare providers and clinical laboratories with guidelines on all aspects of specimen management and diagnostic testing
- Commissioner of Health will request public acknowledgement by the Governor of the commissioner's statutory and implied authority and responsibility to impose mandatory isolation and quarantine, close public and private places, cancel public events, and other emergency responses to serious threats to the public health.

B1d2. PHASE 6.2: SINGLE/FEW ISOLATED SUSPECT CASE(S) IN VERMONT:

B1d2. Surveillance and Epi Response

[Note: activities initiated at any time in Phase 6 will continue unless explicitly discontinued]

SECTION III – CONCEPT OF OPERATIONS

Phase 6 – Pandemic Period – Increased and sustained transmission in general population

- Epi will:
 - Collect detailed data on patient(s) including clinical course, travel or poultry exposure history, place, date and time of possible exposure and onset of symptoms, and close contacts.
 - If source of exposure appears to be animal influenza, notify Vermont Agency of Agriculture
 - Make initial recommendations to suspect case and contacts regarding isolation, treatment and quarantine
 - With PIO, create public statements and finalize drafts of public statements in the event lab results are positive
 - Identify if any special populations are at increased risk for potential exposure and determine whether additional interventions are needed
 - Hold conference calls with districts as needed
- VDH Lab will:
 - Prioritize testing for suspect case(s) and their contacts
 - Send unknown subtypes to CDC for confirmation
 - Maintain constant communication with hospital labs

B1d3. PHASE 6.3: SINGLE/FEW ISOLATED CONFIRMED CASE(S) IN VERMONT:

B1d3. Surveillance and Epi Response

- Epi will:
 - Confirm travel or poultry exposure history, exposure and onset of symptoms, and close contacts
 - If necessary, send a team of Epi Field Unit staff to investigate cases or clusters and confirm that recommendations to case and contacts are followed regarding isolation, treatment and quarantine
 - Monitor symptoms among close contacts
 - With PIO, issue public statements reporting positive lab results
 - Monitor antiviral drug use, effectiveness, resistance, and adverse events
- CPH, with Epi assistance, will:
 - Perform contact tracing and symptom monitoring
 - Develop a monitoring plan for each patient and contacts, including isolation, treatment of cases, prophylaxis, monitoring symptoms, and quarantine if indicated
 - Maintain close liaison with home health agencies and EMS
 - Ask for assistance if needed to handle call volume
 - Communicate frequently with schools, including absenteeism reports
- VDH Lab will inventory all lab supplies and equipment and replenish any that may be in short supply

B1d4. PHASE 6.4 LOCALIZED OUTBREAKS IN VERMONT, CASES LESS THAN CAPACITY:

B1d4. Surveillance and Epi Response

- Epi will:
 - Continue to screen requests for lab testing
 - Maintain an up-to-date line list and map of human cases and deaths.
 - Interpret epidemiological, surveillance, and laboratory data to characterize changing trends and guide policy recommendations and/or redirect surveillance efforts
 - With the VDH Lab, continually review testing policy and purpose.
 - Hold daily conference calls with district offices
 - Respond to requests for data

SECTION III – CONCEPT OF OPERATIONS

Phase 6 – Pandemic Period – Increased and sustained transmission in general population

B1d5. PHASE 6.5: WIDESPREAD OUTBREAKS IN VT OR CASES EXCEED CAPACITY: **B1D5. SURVEILLANCE AND EPI RESPONSE**

- Epi will:
 - Discontinue investigation of individual cases
 - Redefine objectives of lab testing toward surveillance instead of diagnosis
 - Interpret epidemiological, surveillance, and laboratory data to characterize changing trends
 - Define epidemiology of the outbreak, characterize population groups with increased morbidity and mortality, and determine risk factors for disease including co-morbidity with other diseases
 - Develop intervention strategies, including those for special populations, as needed

B2. IMMUNIZATION:

B2a. PHASES 1 & 2 – INTER-PANDEMIC PERIOD

Phase 1: No new influenza virus subtypes have been detected in humans. Influenza virus subtype that has caused human infection may be present in animals; if so, the risk of human infection or disease is considered low.

Phase 2: No new influenza virus subtypes have been detected in humans. However, circulating animal influenza virus subtype poses substantial risk of human disease.

- VDH Incident Command System and Health Operations Center are not activated (Level I).
-

B2a. Immunization – Phases 1 & 2

- The VDH Immunization Program (IZ), Community Public Health Division (CPH), Vermont Emergency Management (VEM) and VAHHS will develop a plan for vaccination of designated priority groups to be implemented when the first supplies arrive in Vermont; include identification of personnel to administer vaccine, sites, security, and funding
- The Immunization Program, the Community Public Health Division, and Vermont Emergency Management will develop a plan for vaccination of the public to be implemented once sufficient amounts of vaccine are available, to include the following:
 - Assure vendor readiness to provide vaccination clinic supplies, which may be in high demand nationally and may not be provided by the Strategic National Stockpile (SNS)
 - Build on the network of community volunteer vaccination teams, such as inactive nurse volunteers, community emergency response teams, and local emergency planning committees, that have assisted with vaccination events and exercises in the past
 - Develop written commitments for other state agencies, public and private institutions, and volunteer vaccination teams to outline their scope of responsibility during a pandemic influenza emergency
 - Execute written memoranda of understanding for use of all clinic sites; develop plans for patient flow, security, traffic, and other details for each clinic site
 - Assure that communication with all vaccination clinic sites is maintained so that a list of clinics scheduled around the State will be available
 - Consider conducting vaccination exercises with volunteer community teams to further develop community teams' abilities
 - Coordinate with bordering states (NY, NH, ME, MA) and with Canada in collaboration with federal authorities in vaccination plan development
- The VDH Immunization Program (IZ) will:
 - implement plans to increase annual influenza vaccination coverage according to CDC and ACIP guidelines to increase overall immunity to vaccine-preventable respiratory disease and reduce the risk of multiple and secondary infections
 - consider contingency plans for emergency distribution of unlicensed vaccines using emergency investigational new drug provisions, including inventory control, record keeping, and completion of a signed consent form.

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Phase 6 – Pandemic Period – Increased and sustained transmission in general population

- develop a plan for reporting and investigation of adverse events using the existing Vaccine Adverse Events Reporting System (VAERS); consider identifying pre-existing networks of neurologists that could serve as sentinels for serious adverse neurological events such as Guillain-Barré Syndrome.
- maintain CDC's current Vaccine Management System (VACMAN) system to track vaccine supply, distribution, and use
- consider CDC's recommendation to develop a recall-reminder system to track administration of both vaccine doses to children and conduct recall for second doses
- compare their blast-FAX database of vaccine providers to the Epi or Health Alert Network's (HAN) database of providers to identify any gaps or additions needed for information flow about vaccine in the pandemic context
- IZ and CPH will review and modify vaccination plans as needed, and at least annually
- IT will develop data management tools to support all VDH-initiated vaccination campaigns

B2b. PHASE 3 – PANDEMIC ALERT

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.

- VDH Incident Command System and Health Operations Center are not activated (Level I).
-

B2b. Immunization – Phase 3

- Continue activities initiated in previous phase:
 - The VDH Immunization Program (IZ), Community Public Health Division (CPH), Vermont Emergency Management (VEM) and VAHHS will develop a plan for vaccination of designated priority groups to be implemented when the first supplies arrive in Vermont; include identification of personnel to administer vaccine, sites, security, and funding
 - The Immunization Program, the Community Public Health Division, and Vermont Emergency Management will develop a plan for vaccination of the public to be implemented once sufficient amounts of vaccine are available, to include the following:
 - Assure vendor readiness to provide vaccination clinic supplies, which may be in high demand nationally and may not be provided by the Strategic National Stockpile (SNS)
 - Build on the network of community volunteer vaccination teams, such as inactive nurse volunteers, community emergency response teams, and local emergency planning committees, that have assisted with vaccination events and exercises in the past
 - Develop written commitments for other state agencies, public and private institutions, and volunteer vaccination teams to outline their scope of responsibility during a pandemic influenza emergency
 - Execute written memoranda of understanding for use of all clinic sites; develop plans for patient flow, security, traffic, and other details for each clinic site
 - Assure that communication with all vaccination clinic sites is maintained so that a list of clinics scheduled around the State will be available
 - Consider conducting vaccination exercises with volunteer community teams to further develop community teams' abilities
 - Coordinate with bordering states (NY, NH, ME, MA) and with Canada in collaboration with federal authorities in vaccination plan development
 - The VDH Immunization Program (IZ) will:
 - implement plans to increase annual influenza vaccination coverage according to CDC and ACIP guidelines to increase overall immunity to vaccine-preventable respiratory disease and reduce the risk of multiple and secondary infections
 - consider contingency plans for emergency distribution of unlicensed vaccines using emergency investigational new drug provisions, including inventory control, record keeping, and completion of a signed consent form.
 - Work with HHS when developing a plan for reporting and investigation of adverse events using the existing Vaccine Adverse Events Reporting System (VAERS); consider identifying pre-existing networks of neurologists that could serve as sentinels for serious adverse neurological events such as Guillain-Barré Syndrome.
 - maintain CDC's current Vaccine Management System (VACMAN) system to track vaccine supply, distribution, and use
 - consider CDC's recommendation to develop a recall-reminder system to track administration of both vaccine doses to children and conduct recall for second doses

SECTION III – CONCEPT OF OPERATIONS

Phase 6 – Pandemic Period – Increased and sustained transmission in general population

- compare their blast-FAX database of vaccine providers to the Epi or Health Alert Network's (HAN) database of providers to identify any gaps or additions needed for information flow about vaccine in the pandemic context
- IZ and CPH will review and modify vaccination plans as needed, and at least annually
- IT will develop data management tools to support all VDH-initiated vaccination campaigns
- Epi, Community Public Health and the Immunization Program will meet with partners and stakeholders to review and update major elements of the vaccination plan
- Request that Vermont State Police design a security plan for possible clinic sites

B2c. PHASES 4 & 5 – PANDEMIC ALERT

Phase 4: Small cluster(s) with limited human-to-human transmission (not in the US or Canada) but spread is highly localized, suggesting that the virus is not well adapted to humans.

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

- VDH Incident Command System is partially activated (Level II)
-

B2c. Immunization – Phases 4 & 5

- Community Public Health (CPH) will develop a plan to ensure that human resources and logistics will be adequate to begin vaccination when available, taking into account the need for additional staff due to illness
- IZ and VEM will alert relevant agencies and partner groups to the emerging situation and ask them to review vaccine delivery protocols and procedures
- IZ will:
 - Request help with provider phone calls
 - Check with SNS about pharmaceutical supplies. SNS requesting procedures can be found in the Strategic national Stockpile Plan, Section 3 – Requesting the SNS.
 - Talk with District Offices about staffing clinics
 - Develop procedures for reimbursing home health agencies
- District Offices: check clinic supplies, explore staffing with home health agencies
- The State Epidemiologist will:
 - convene a special advisory committee on vaccines and antiviral medications. The advisory committee will include representatives from the Vermont hospital association and medical society, home health agencies, Vermont hospitals, physicians, community health centers, public safety and emergency management, municipal government, emergency medical services, and selected volunteer organizations. The advisory committee will assist with policy recommendations and development. Depending on supplies of antiviral medications and vaccine, and considering the policies of bordering states and provinces, the advisory committee will consider recommending priority groups for antivirals and vaccination. In the meantime, interim priority groups are defined in Appendix 3 to this document.
 - Adopt priority groups to receive vaccine.
 - Establish vaccine quantities and delivery procedures for highest priority groups.

B2d. PHASE 6 - PANDEMIC PERIOD

Phase 6: Pandemic phase: increased and sustained transmission in general population.

- VDH Incident Command System and Health Operations Center are partially activated (Level II) and move to full activation (Level III or IV) when the situation warrants.
-

SECTION III – CONCEPT OF OPERATIONS

Phase 6 – Pandemic Period – Increased and sustained transmission in general population

B2C1. PHASE 6.1: CASES OR OUTBREAKS IN US OR CANADA BUT NOT IN VERMONT

B2c1. Immunization

- Continue activities initiated in previous phases:
 - Community Public Health (CPH) will Exercise a plan to ensure that human resources and logistics will be adequate to begin vaccination when available, taking into account the need for additional staff due to illness
 - IZ and VEM will alert relevant agencies and partner groups to the emerging situation and ask them to review vaccine delivery protocols and procedures
 - The State Epidemiologist will:
 - convene a special advisory committee on vaccines and antiviral medications. The advisory committee will include representatives from the Vermont hospital association and medical society, home health agencies, Vermont hospitals, physicians, community health centers, public safety and emergency management, municipal government, emergency medical services, and selected volunteer organizations. The advisory committee will assist with policy recommendations and development. Depending on supplies of antiviral medications and vaccine, and considering the policies of bordering states and provinces, the advisory committee will consider recommending priority groups for antivirals and vaccination.
 - Adopt priority groups to receive vaccine.
 - Update vaccine quantities and delivery procedures for highest priority groups.
 -
 - The State Epidemiologist will establish a working group to refine the preliminary vaccination plan based on the epidemiological characteristics of cases or outbreaks in the US or Canada. The vaccination plan will specify tentative locations and staffing, the groups and estimated volume of people to be vaccinated at each site, estimated dates and times, funding, and security. The working group will include representatives of Community Public Health, Vermont Assembly of Home Health Agencies, VEM, and American Red Cross.

B2C2. PHASE 6.2: SINGLE ISOLATED SUSPECT CASE(S) IN VERMONT:

B2c2. Immunization

- Continue activities initiated in previous phases:
 - Community Public Health (CPH) will Exercise a plan to ensure that human resources and logistics will be adequate to begin vaccination when available, taking into account the need for additional staff due to illness
 - IZ and VEM will alert relevant agencies and partner groups to the emerging situation and ask them to review vaccine delivery protocols and procedures
 - The State Epidemiologist will:
 - convene a special advisory committee on vaccines and antiviral medications. The advisory committee will include representatives from the Vermont hospital association and medical society, home health agencies, Vermont hospitals, physicians, community health centers, public safety and emergency management, municipal government, emergency medical services, and selected volunteer organizations. The advisory committee will assist with policy recommendations and development. Depending on supplies of antiviral medications and vaccine, and considering the policies of bordering states and provinces, the advisory committee will consider recommending priority groups for antivirals and vaccination.
 - adopt priority groups to receive vaccine.
 - Update vaccine quantities and delivery procedures for highest priority groups.
 - direct the vaccination plan working group to update the preliminary vaccination plan based on the epidemiological characteristics of cases or outbreaks in the US or Canada and suspect cases in Vermont, and on guidance from the advisory committee and CDC

B2C3. PHASE 6.3: SINGLE ISOLATED CONFIRMED CASE(S) IN VERMONT:

B2c3. Immunization

- Review vaccine delivery protocols with Vermont Emergency Management
- Direct the vaccination plan working group to update the preliminary vaccination plan based on the epidemiological characteristics of cases or outbreaks in the US or Canada and suspect cases in Vermont, and on guidance from the advisory committee and CDC

SECTION III – CONCEPT OF OPERATIONS

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- If available, provide vaccine to close contacts in order to minimize spread
- Update vaccine quantities and delivery procedures for highest priority groups.

B2C4. PHASE 6.4 LOCALIZED OUTBREAKS IN VERMONT, CASES LESS THAN CAPACITY:

B2c4. Immunization

- As soon as a vaccine delivery date is announced, finalize the vaccination plan based on the epidemiological characteristics of cases or outbreaks in the US, Canada and Vermont, and on guidance from the advisory committee and CDC. The final vaccination plan will specify exact locations, staffing, dates, times, groups and volume of people to be vaccinated at each site, funding, and security at each site.
- If available, provide vaccine to close contacts in order to minimize spread
- Update vaccine quantities and delivery procedures for highest priority groups.

B2C5. PHASE 6.5: WIDESPREAD OUTBREAKS IN VT OR CASES EXCEED CAPACITY:

B2c5. Immunization

- Update vaccine quantities and delivery procedures for highest priority groups.
- IZ and Epi will develop a fair and equitable formula for allocation of vaccine by county or district office, based on best estimate of high priority populations and unmet need
- As soon as a vaccine delivery date is announced, finalize the vaccination plan based on the epidemiological characteristics of cases or outbreaks in the US, Canada and Vermont, and on guidance from the advisory committee and CDC. The final vaccination plan will specify exact locations, staffing, dates, times, groups and volume of people to be vaccinated at each site, funding, and security at each site.
- VDH Commissioner, through the Health Operations Center, will:
 - when vaccine becomes available, activate the vaccination plan
 - request the activation of SSF-13, Law Enforcement, to assist in protecting and deploying the vaccine and those who administer it, if it is believed that the supply of vaccine is under threat
 - request the activation of SSF-6, Mass Care Food & Water, to assist in coordinating efforts to provide care, shelter, and feeding as needed for people in isolation or quarantine
- IZ will purchase vaccine as it becomes available using available funding; pack all vaccines for delivery; contact emergency storage sites if additional storage is needed
- CPH, IZ and Epi will provide technical assistance as needed to district offices and home health agencies to establish immunization clinics
- IZ and VEM will distribute vaccine to public and private sector using current distribution system (with arrangements for security as needed) and using VACMAN for inventory tracking; modify distribution system as needed to ensure optimal coverage
- VEM will coordinate vaccination activities with bordering jurisdictions

B3. ANTIVIRAL MEDICATIONS:

B3a. PHASES 1 & 2 – INTER-PANDEMIC PERIOD

Phase 1: No new influenza virus subtypes have been detected in humans. Influenza virus subtype that has caused human infection may be present in animals; if so, the risk of human infection or disease is considered low.

SECTION III – CONCEPT OF OPERATIONS

Phase 6 – Pandemic Period – Increased and sustained transmission in general population

Phase 2: No new influenza virus subtypes have been detected in humans. However, circulating animal influenza virus subtype poses substantial risk of human disease.

- VDH Incident Command System and Health Operations Center are not activated (Level I).
-

B3a. Antiviral Medications – Phases 1 & 2

- Epi will ensure that the most recent recommendations and guidelines for the use of antiviral medications for influenza treatment and prophylaxis are available to health care providers and health care facilities
 - Epi will explore options for acquiring antiviral inventory
 - VDH, in consultation with its advisory committees, will define the process through which Vermont will review and adopt or modify national recommendations for antiviral priority groups. The advisory committee will include representatives from the Vermont hospital association and medical society, home health agencies, Vermont hospitals, physicians, community health centers, public safety and emergency management, municipal government, emergency medical services, and selected volunteer organizations.
 - The State Epidemiologist, in coordination with PIO, will develop plans for education and notification of the medical community and of the public around appropriate prescribing information
 - VDH Legal Counsel will review workers' compensation laws as they apply to health care workers and other essential workers who have taken antivirals for prophylaxis
 - The VDH Strategic National Stockpile (SNS) Coordinator will ensure that the SNS Plan can accommodate receipt and delivery of antiviral medications.
 - CPH will ensure that the Clinic Plan can accommodate distribution of antiviral medications and vaccine to the identified population.
-

B3b. PHASE 3 – PANDEMIC ALERT

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.

- VDH Incident Command System and Health Operations Center are not activated (Level I).
-

B3b. Antiviral Medications – Phase 3

- Epi and SNS will continue activities initiated in previous phase:
 - Epi will ensure that the most recent recommendations and guidelines for the use of antiviral medications for influenza treatment and prophylaxis are available to health care providers and health care facilities
 - Epi will explore options for acquiring antiviral inventory
 - VDH, in consultation with its advisory committees, will define the process through which Vermont will review and adopt or modify national recommendations for antiviral priority groups
 - The State Epidemiologist, in coordination with PIO, will develop plans for education and notification of the medical community and of the public around appropriate prescribing information
 - VDH Legal Counsel will review workers' compensation laws as they apply to health care workers and other essential workers who have taken antivirals for prophylaxis
 - The VDH Strategic National Stockpile (SNS) Coordinator will ensure that the SNS Plan can accommodate receipt and delivery of antiviral medications.
 - CPH will ensure that the Clinic Plan can accommodate distribution of antiviral medications and vaccine to the identified population.
-

B3c. PHASES 4 & 5 – PANDEMIC ALERT

Phase 4: *Small cluster(s) with limited human-to-human transmission (not in the US or Canada) but spread is highly localized, suggesting that the virus is not well adapted to humans.*

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

- VDH Incident Command System is partially activated (Level II)
-

SECTION III – CONCEPT OF OPERATIONS

Phase 6 – Pandemic Period – Increased and sustained transmission in general population

B3c. Antiviral Medications – Phases 4 & 5

- CPH will develop a plan to ensure that human resources and logistics will be adequate to distribute antiviral medications when available, taking into account the need for additional staff due to illness
- Epi will ensure that the current CDC guidelines for administration of antivirals are available for health care providers and health care facilities.
- Logistics Section will monitor availability and sources of antiviral medications.
- State Epidemiologist will:
 - Determine whether limited effectiveness and supply of antiviral medications warrant the effort to develop distribution and administration procedures
 - convene expert advisory committee (which may be the same committee reviewing vaccine priorities) to review national guidelines and recommend priority groups to receive antiviral medications; determine how the supplies of antivirals are distributed within the state; and consider use of a health order to health care providers to inventory their supplies of antiviral medications and to surrender such supplies to VDH. Depending on supplies of antiviral medications and vaccine, and considering the policies of bordering states and provinces, the advisory committee will consider recommending priority groups for antivirals and vaccination. In the meantime, interim priority groups are defined in Appendix 3.
 - adopt priority groups to receive antiviral medications.
 - Establish antiviral medication quantities and delivery procedures for highest priority groups. Consider direct delivery from federal supplies to health care providers.

B3d. PHASE 6 - PANDEMIC PERIOD

Phase 6: Pandemic phase: increased and sustained transmission in general population.

- VDH Incident Command System and Health Operations Center are partially activated (Level II) and move to full activation (Level III or IV) when the situation warrants.
-

B3D1. PHASE 6.1: CASES OR OUTBREAKS IN US OR CANADA BUT NOT IN VERMONT

B3d1. Antiviral medications

- Continue activities initiated in previous phases:
 - CPH will Exercise a plan to ensure that human resources and logistics will be adequate to distribute antiviral medications when available, taking into account the need for additional staff due to illness
 - Epi will ensure that the current CDC guidelines for administration of antivirals are available for health care providers and health care facilities.
 - State Epidemiologist will:
 - convene expert advisory committee (which may be the same committee reviewing vaccine priorities) to review national guidelines and recommend priority groups to receive antiviral medications; determine how the supplies of antivirals are distributed within the state; and consider use of a health order to health care providers to inventory their supplies of antiviral medications and to surrender such supplies to VDH. Depending on supplies of antiviral medications and vaccine, and considering the policies of bordering states and provinces, the advisory committee will consider recommending priority groups for antivirals and vaccination.
 - adopt priority groups to receive antiviral medications.
 - Logistics Section will monitor supplies of antivirals in the state through weekly reports from distributors and determine appropriate state-level actions considering type, shelf life, packaging, and formulation.
 - Logistics Section will coordinate the antiviral drug distribution plan with VEM
 - Distribution will be based on HHS and CDC recommendations as they most appropriately fit for Vermont.
- **CPH will conduct training for public health staff involved in antiviral distribution protocols and procedures.**

SECTION III – CONCEPT OF OPERATIONS

Phase 6 – Pandemic Period – Increased and sustained transmission in general population

B3D2. PHASE 6.2: SINGLE ISOLATED SUSPECT CASE(S) IN VERMONT:

B3d2. Antiviral medications

- Epi will:
 - Provide recommendations for the allocation of antiviral medications to exposed health care workers and close contacts of suspect case(s) (“ring prophylaxis”).
- CPH will:
 - Distribute antiviral medications if available.
 - Work with healthcare providers and federal officials to collect data on distribution of antiviral drugs and occurrence of adverse events following administration of antiviral drugs.
 - Work with healthcare providers and federal officials to monitor development of resistance to antivirals.
 - Encourage bordering jurisdictions to share information regarding distribution of antivirals to optimize targeting and clarify, in advance, any apparent inconsistencies in policies.

B3D3. PHASE 6.3: SINGLE ISOLATED CONFIRMED CASE(S) IN VERMONT:

B3d3. Antiviral medications

- Epi will:
 - Continue to allocate antiviral medications to confirmed cases, exposed health care workers, and close contacts.
 - Consult with advisory committee and continue to monitor antiviral supplies and national recommendations; adjust VDH antiviral plan as needed.
- CPH will:
 - Continue to distribute antiviral medications if available.
 - Continue working with healthcare providers and federal officials to collect data on distribution of antiviral drugs and occurrence of adverse events following administration of antiviral drugs.
 - Continue working with healthcare providers and federal officials to monitor development of resistance to antivirals.
 - Encourage bordering jurisdictions to share information regarding distribution of antivirals to optimize targeting and clarify, in advance, any apparent inconsistencies in policies.

B3D4. PHASE 6.4 LOCALIZED OUTBREAKS IN VERMONT, CASES LESS THAN CAPACITY:

B3d4. Antiviral medications

- Epi will:
 - Continue to consult with advisory committee and allocate antiviral medications if available.
 - quantify high-priority populations for prophylaxis and therapy and develop drug distribution contingency plans for several possible scenarios
- CPH will:
 - Continue to distribute antiviral medications if available.
 - Continue working with healthcare providers and federal officials to collect data on distribution of antiviral drugs and occurrence of adverse events following administration of antiviral drugs.
 - Continue working with healthcare providers and federal officials to monitor development of resistance to antivirals.
 - Encourage bordering jurisdictions to share information regarding distribution of antivirals to optimize targeting and clarify, in advance, any apparent inconsistencies in policies.

SECTION III – CONCEPT OF OPERATIONS

Phase 6 – Pandemic Period – Increased and sustained transmission in general population

B3D5. PHASE 6.5: WIDESPREAD OUTBREAKS IN VT OR CASES EXCEED CAPACITY:

B3d5. Antiviral medications

- Epi will:
 - Restrict antiviral medications to health care workers and essential service workers.
 - Consult with advisory committee and continue to monitor antiviral supplies and national recommendations; adjust VDH antiviral plan and recommendations as needed.
- CPH will:
 - Continue local clinics to distribute antiviral medications.
 - Continue working with healthcare providers and federal officials to collect data on distribution of antiviral drugs and occurrence of adverse events following administration of antiviral drugs.
 - Continue working with healthcare providers and federal officials to monitor development of resistance to antivirals.
 - Encourage bordering jurisdictions to share information regarding distribution of antivirals to optimize targeting and clarify, in advance, any apparent inconsistencies in policies.

B4. COMMUNICATION:

B4a. PHASES 1 & 2 – INTER-PANDEMIC PERIOD

Phase 1: No new influenza virus subtypes have been detected in humans. Influenza virus subtype that has caused human infection may be present in animals; if so, the risk of human infection or disease is considered low.

Phase 2: No new influenza virus subtypes have been detected in humans. However, circulating animal influenza virus subtype poses substantial risk of human disease.

- VDH Incident Command System and Health Operations Center are not activated (Level I).
-

B4a. Communication – Phases 1 & 2

- The State Epidemiologist and Communication Director (PIO) will work together to develop and maintain communication preparedness and to keep the public, health care providers and key partners updated about risks as the threat of a pandemic increases.
- The State Epidemiologist will:
 - maintain communication with the state’s hospitals and the Vermont Association of Hospitals and Health Systems (VAHHS) liaison
 - send timely messages to health care facilities and health care providers, via the Health Alert Network (HAN) as needed, including requests for reporting any cluster or unusual cases of ILI and requests for influenza culture specimens to be sent to the VDH Lab
 - keep the public informed of influenza and ILI outbreaks in an effort to control and prevent the spread of disease and reduce anxiety
 - identify and train other spokespersons and communication team to ensure that accurate and consistent information is provided to the news media and to the public, and plan responses to anticipated questions
 - in coordination with PIO, plan for coordination of messages between state public health officials and health care providers and other stakeholders
- PIO will
 - assess readiness to meet communication needs in preparation for pandemic influenza, including regular review and updates of Crisis and Emergency Risk Communication (CERC) plan
 - identify spokespersons and key health communicators; provide training in media relations, crisis and emergency risk communication, spokesperson skills
 - provide training for communication team on basic public health principles and public health law
 - keep VDH staff, partners, stakeholders and public informed of status of influenza outbreaks and public health preparedness efforts, including communication planning

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Phase 6 – Pandemic Period – Increased and sustained transmission in general population

- develop materials and messages for the general public, including rationale for priority groups for vaccine and antivirals, and measures to be taken until vaccine and antivirals are available
- collect communication resources on pandemic influenza topics
- work with subject matter experts to develop key messages, communication products, and other resources to be used in the event of pandemic influenza
- develop public information policy and information clearance protocols specific to pandemic influenza
- coordinate pandemic influenza communication plans, messages and information with local, state, national, bordering states, and Quebec colleagues and hospitals and test in tabletops, drills and trainings
- intensify public education on basic infection control with “Ask for a Mask”, handwashing, etc. campaigns
- **Division of Mental Health will:**
 - Assist the VDH communication office in the development of phase-specific public health messages addressing the psychosocial consequences of pandemic influenza, strategies for mitigating fear and anxiety, the psychological and behavioral effects of isolation and quarantine, and behavioral health resources.
 - Develop educational and training materials that provide information on psychological support for patients, hospital and healthcare staff, first responders, community organizations, and other essential and identified personnel. These materials may include topics such as signs of distress, grief, stress management and coping strategies, personal and workforce resilience, and behavioral and psychological support resources.
 - Distribute these materials through print media, websites, and broadcast video as well as through CMHCs, District Health Offices, hospitals, state agencies, professional associations, and non-governmental and community organizations.

B4b. PHASE 3 – PANDEMIC ALERT

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.

- VDH Incident Command System and Health Operations Center are not activated (Level I).
-

B4b. Communication – Phase 3

- Continue activities initiated in previous phase:
 - The State Epidemiologist and Communication Director (PIO) will work together to develop and maintain communication preparedness and to keep the public, health care providers and key partners updated about risks as the threat of a pandemic nears.
 - The State Epidemiologist will:
 - issue guidelines for all health care providers and health care facilities and encourage them to institute “Guidelines for Respiratory Hygiene and Cough Etiquette” to help limit spread of infectious disease transmission (see Appendix 4)
 - maintain communication with the state’s hospitals and the Vermont Association of Hospitals and Health Systems (VAHHS) liaison
 - send timely messages to health care facilities and health care providers, via the Health Alert Network (HAN) as needed, including requests for reporting any cluster or unusual cases of ILI and requests for influenza culture specimens to be sent to the VDH Lab
 - as principal spokesperson, keep the public informed of influenza and ILI outbreaks in an effort to control and prevent the spread of disease
 - as subject matter expert, identify and train other spokespersons to help ensure that accurate and consistent information is given to the press and to the public and plan responses to anticipated questions
 - plan for coordination of messages between state public health officials and health care providers and other stakeholders
 - PIO will:

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Phase 6 – Pandemic Period – Increased and sustained transmission in general population

- continue activities initiated in previous phases. In addition:
- provide regular updates and offer opportunities to address questions (in partnership with the news media, community forums, via the public website, through meetings with communication partners, etc)
- distribute practical information as it becomes relevant, such as traveler’s advisories, infection control measures, and information about potential rationing of antiviral medications and first-generation vaccines; disseminate advice to people traveling to affected areas, recommending they avoid contact with live poultry
- reinforce and verify ways to help people protect themselves, their families and others from regular flu
- formalize and communicate public information policy and information clearance protocols specific to pandemic influenza
- pre-clear as much information as possible, including key messages, talking points, backgrounders, fact sheets, Qs&As, news release templates and share with partners
- monitor news media reports and public inquiries to anticipate and address public information needs, including information to counter stigmatization of specific populations
- continue to coordinate communication activities with local, state, national and bordering jurisdictions
- build influenza pandemic website and check hotline capacities
- Plan for overflow and surge capacity; plan to divert calls from “worried well”
- Identify 6-8 languages used in Vermont and arrange for translation services
- Check readiness status of Go-Kits
- test communication channels, exercise spokespersons, communication team, check media and communication contact lists
- The Division of Mental Health will:
 - Assist the VDH communication office in the development of phase-specific public health messages addressing the psychosocial consequences of pandemic influenza, strategies for mitigating fear and anxiety, the psychological and behavioral effects of isolation and quarantine, and behavioral health resources.
 - Develop and update educational and training materials that provide information on psychological support for patients, hospital and healthcare staff, first responders, community organizations, and other essential and identified personnel.
 - Distribute these materials through print media, websites, and broadcast video as well as through CMHCs, District Health Offices, hospitals, state agencies, professional associations, and non-governmental and community organizations.
- **Division of Mental Health will** adapt all behavioral health messages to suit special needs populations (elderly, developmentally disabled, ethnic groups, etc.) and their service providers.
- District Offices will increase skills training for handling calls from the public

B4c. PHASES 4 & 5 – PANDEMIC ALERT

Phase 4: Small cluster(s) with limited human-to-human transmission (not in the US or Canada) but spread is highly localized, suggesting that the virus is not well adapted to humans.

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

- VDH Incident Command System is partially activated (Level II)
-

B4c. Communication – Phases 4 & 5

- Continue activities initiated in previous phase:
 - Epi and Communication Director (PIO) will work together to keep the public, health care providers and key partners fully informed as the threat of a pandemic nears. If the Health EOC is partially activated, the Communication Director or his or her designee joins the Health command staff in ICS as Lead PIO, directing communication activities.
- Epi will:

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Phase 6 – Pandemic Period – Increased and sustained transmission in general population

- issue guidelines for all health care providers and health care facilities and encourage them to institute “Guidelines for Respiratory Hygiene and Cough Etiquette” to help limit spread of infectious disease transmission (see Appendix 6)
- consider activating the VDH provider hotline or combine with public hotline
- disseminate additional influenza surveillance recommendations to all Vermont hospitals, health care providers, laboratories, and others as appropriate
- disseminate updated diagnostic, isolation, and treatment recommendations to all Vermont hospitals, health care providers, and emergency management officials
- identify special populations at increased risk for exposure and work with PIO to develop appropriate information materials
- disseminate updates on the status of influenza activity in Vermont to all hospitals and health care providers
- disseminate advisories regarding travel precautions to all travel agencies, travel clinics, the business community, public and private schools, colleges and universities.
- notify PIO when VDH plans to meet and screen arriving travelers.
- PIO will:
 - Emphasize in public briefings and written materials how people can protect themselves, including handwashing and respiratory etiquette
 - Execute or activate a contract with outside info line contractor; VDH to monitor their call log and track trends in questions and concerns
 - consider activating the VDH public hotline and influenza pandemic website in accordance with CERC plan
 - test communication channels, exercise spokespersons, communication team, check media and communication contact lists
 - ensure that communication messages are available for health care providers and health care facilities regarding the rationale for priority groups for vaccine and antivirals, and measures to be taken until such are available, if the current situation warrants this
 - continue to monitor news media reports and public inquiries to anticipate and address public information needs
 - identify special communication needs populations defined as those people who will not or cannot receive messages via the mass media, prepare or translate messages and communication channels
 - hold news conferences or briefings as needed to effectively communicate with the media and the public
 - participate in partner/stakeholder briefings as needed to share information, coordinate communication
 - continue to coordinate communication plans, messages, etc. with local, state, national and Quebec partners
- Division of mental health will:
 - Assist the VDH communication office in the development of phase-specific public health messages addressing the psychosocial consequences of pandemic influenza, strategies for mitigating fear and anxiety, the psychological and behavioral effects of isolation and quarantine, and behavioral health resources, and adapted to suit special needs populations.
 - Develop and update educational and training materials that provide information on psychological support for patients, hospital and healthcare staff, first responders, community organizations, and other essential and identified personnel.
 - Distribute these materials through print media, websites, and broadcast video as well as through CMHCs, District Health Offices, hospitals, state agencies, professional associations, and non-governmental and community organizations.
- Division of Mental Health will:
 - If requested by the PIO, assist with managing phone calls from the public and health providers and other public information activities.
 - Ensure that CMHCs deliver information consistent with authorized statements from the PIO in support of the overall public health response

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Phase 6 – Pandemic Period – Increased and sustained transmission in general population

B4d. PHASE 6 - PANDEMIC PERIOD

Phase 6: Pandemic phase: increased and sustained transmission in general population.

- VDH Incident Command System and Health Operations Center are partially activated (Level II) and move to full activation (Level III or IV) when the situation warrants.
-

B4D1. PHASE 6.1: CASES OR OUTBREAKS IN US OR CANADA BUT NOT IN VERMONT

B4d1. Communication – Phase 6.1

- Continue activities initiated in previous phase:
 - Epi, State Epidemiologist and Communication Director (PIO) will work together to keep the public, health care providers and key partners, including community mental health centers, fully informed as the threat of a pandemic nears. If the Health EOC is activated, the Communication Director or his or her designee is part of the Health command staff in ICS as Lead PIO, directing communication activities.
 - Epi will:
 - consider activating the VDH provider hotline and tailor messages to keep health care providers informed
 - disseminate additional influenza surveillance recommendations to all Vermont hospitals, health care providers, laboratories, and others as appropriate
 - disseminate updated diagnostic, isolation, and treatment recommendations to all Vermont hospitals, health care providers, and emergency management officials
 - identify special populations at increased risk for exposure and develop appropriate information materials
 - disseminate updates on the status of influenza activity in Vermont to all hospitals and health care providers
 - disseminate information regarding travel precautions to all travel agencies, travel clinics, the business community, public and private schools, colleges and universities.
 - notify PIO when VDH plans to meet and screen arriving travelers.
 - The Division of Mental health will:
 - Assist the VDH communication office in the development of phase-specific public health messages addressing the psychosocial consequences of pandemic influenza, strategies for mitigating fear and anxiety, the psychological and behavioral effects of isolation and quarantine, and behavioral health resources, and adapted to suit special needs populations.
 - Develop and update educational and training materials that provide information on psychological support for patients, hospital and healthcare staff, first responders, community organizations, and other essential and identified personnel.
 - Distribute these materials through print media, websites, and broadcast video as well as through CMHCs, District Health Offices, hospitals, state agencies, professional associations, and non-governmental and community organizations.
 - If requested by the PIO, assist with managing phone calls from the public and health providers and other public information activities.
 - Ensure that CMHCs deliver information consistent with authorized statements from the PIO in support of the overall public health response
 - PIO will:
 - consider activating emergency communication team, the VDH public hotline and influenza pandemic website in accordance with CERC plan
 - contact key community partners and begin frequent update briefings
 - as appropriate, provide public information regularly to community organizations for local dissemination
 - hold news conferences or briefings as needed to effectively communicate with the media and the public
 - continue to monitor news media reports and public inquiries to anticipate and address public information needs
 - tailor communication services and key messages to specific audiences
 - identify special communication needs populations defined as those people who will not or cannot receive messages via the mass media, prepare or translate messages and communication channels
 - participate in partner/stakeholder briefings as needed to share information, coordinate communication
 - continue to coordinate communication plans, messages, etc. with local, state, national and Quebec partners
 - VDH Lab Director will provide updates on clinical laboratory specimen collection and handling to all Vermont clinical laboratories which will be disseminated through the HAN

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Phase 6 – Pandemic Period – Increased and sustained transmission in general population

- Commissioner and State Epidemiologist in coordination with Communication Director (PIO) will educate the public and the health care community about the considerations for rationing vaccine and antiviral medications. Rationing will require substantial public education and adequate security measures. VDH will invite religious and civic organizations, local political entities, and the state legislature to participate in the education effort.

B4D2. PHASE 6.2: SINGLE ISOLATED SUSPECT CASE(S) IN VERMONT:

B4d2. Communication – Phase 6.2

- PIO will continue to direct communication and public information activities as part of Health ICS command staff, according to Crisis and Emergency Risk Communication plan/pandemic influenza supplement.
- PIO will:
 - consider activating emergency communication team, the VDH public hotline and influenza pandemic website in accordance with CERC plan
 - develop public statement in the event lab finding is positive for pandemic influenza
 - prepare to obtain and track information daily on the numbers and location of new cases, hospitals with pandemic influenza cases, etc.
 - contact key community partners and begin frequent update briefings
 - as appropriate, provide public information regularly to community organizations for local dissemination
 - hold news conferences or briefings as needed to effectively communicate with the media and the public
 - continue to monitor news media reports and public inquiries to anticipate and address public information needs
 - tailor messages to special communication needs populations defined as those people who will not or cannot receive messages via the mass media, prepare or translate messages and communication channels
 - participate in partner/stakeholder briefings as needed to share information, coordinate communication
 - coordinate communication plans, messages, etc. with local, state, national and Quebec partners (a “one voice response”)
 - prepare press kit for Phase 6.3 (single isolated confirmed case in Vermont)
 - consider outsourcing the public info-line

B4D3. PHASE 6.3: SINGLE ISOLATED CONFIRMED CASE(S) IN VERMONT:

B4d3. Communication – Phase 6.3

- If provider hotline has not been activated already, do so now
- PIO will continue to direct communication and public information activities as part of Health ICS command staff, according to Crisis and Emergency Risk Communication plan/pandemic influenza supplement.
- Activate communication team, public hotline, emergency website, and behavioral health disaster response team activities
- Commissioner will announce first case and describe preparedness efforts and what people can do to protect themselves and avoid transmission
- Activate system to obtain and track information daily on numbers and locations of new cases, hospitals with cases, etc. Use reports to determine priorities for public information, community outreach and education
- The Division of Mental health will continue activities initiated in previous phases:

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Phase 6 – Pandemic Period – Increased and sustained transmission in general population

- Assist the VDH communication office in the development of phase-specific public health messages addressing the psychosocial consequences of pandemic influenza, strategies for mitigating fear and anxiety, the psychological and behavioral effects of isolation and quarantine, and behavioral health resources, and adapted to suit special needs populations.
- Develop and update educational and training materials that provide information on psychological support for patients, hospital and healthcare staff, first responders, community organizations, and other essential and identified personnel.
- Distribute these materials through print media, websites, and broadcast video as well as through CMHCs, District Health Offices, hospitals, state agencies, professional associations, and non-governmental and community organizations.
- If requested by the PIO, assist with managing phone calls from the public and health providers and other public information activities.
- Ensure that CMHCs deliver information consistent with authorized statements from the PIO in support of the overall public health response

B4D4. PHASE 6.4 LOCALIZED OUTBREAKS IN VERMONT, CASES LESS THAN CAPACITY:

B4d4. Communication – Phase 6.4

- PIO will continue to direct communication and public information activities as part of Health ICS command staff, according to Crisis and Emergency Risk Communication plan/pandemic influenza supplement.
- Division of Mental Health will continue activities initiated in previous phases:
 - Assist the VDH communication office in the development of phase-specific public health messages addressing the psychosocial consequences of pandemic influenza, strategies for mitigating fear and anxiety, the psychological and behavioral effects of isolation and quarantine, and behavioral health resources, and adapted to suit special needs populations.
 - Develop and update educational and training materials that provide information on psychological support for patients, hospital and healthcare staff, first responders, community organizations, and other essential and identified personnel.
 - Distribute these materials through print media, websites, and broadcast video as well as through CMHCs, District Health Offices, hospitals, state agencies, professional associations, and non-governmental and community organizations.
 - If requested by the PIO, assist with delivering information to the public, staffing hotlines, and other public information activities
 - Ensure that CMHCs deliver information consistent with authorized statements from the PIO in support of the overall public health response

B4D5. PHASE 6.5: WIDESPREAD OUTBREAKS IN VT OR CASES EXCEED CAPACITY:

B4D5. COMMUNICATION – PHASE 6.5

- PIO will continue to direct communication and public information activities as part of Health ICS command staff, according to CERC plan.
- State Epidemiologist will notify PIO in advance when Community-Based Containment Measures will be implemented
- In the event that community-level measures are necessary, the Commissioner will hold press conferences at appropriate intervals, potentially daily if needed, to communicate effectively with the media and the public. Daily information may also be available to the press through web-based sources.

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Phase 6 – Pandemic Period – Increased and sustained transmission in general population

- If community-level measures are imposed, the Director of Communication will alert the Director of VEM, the Governor’s Office and other appropriate State agencies, government officials, and community partners as required.
- Division of Mental Health will continue activities initiated in previous phases:
 - Assist the VDH communication office in the development of phase-specific public health messages addressing the psychosocial consequences of pandemic influenza, strategies for mitigating fear and anxiety, the psychological and behavioral effects of isolation and quarantine, and behavioral health resources, and adapted to suit special needs populations.
 - Develop and update educational and training materials that provide information on psychological support for patients, hospital and healthcare staff, first responders, community organizations, and other essential and identified personnel.
 - Distribute these materials through print media, websites, and broadcast video as well as through CMHCs, District Health Offices, hospitals, state agencies, professional associations, and non-governmental and community organizations.
 - If requested by the PIO, assist with delivering information to the public, staffing hotlines, and other public information activities
 - Ensure that CMHCs deliver information consistent with authorized statements from the PIO in support of the overall public health response

F. POST-PANDEMIC PERIOD

Return to Interpandemic period

- VDH Incident Command System and Health Operations Center are not activated (Level I).

With confirmation that the pandemic has ended, activities outlined in Phases 1 & 2 should be resumed. The State Influenza Pandemic Plan should be reviewed by all appropriate parties and revised as appropriate, taking into consideration the lessons learned during the previous phases of the pandemic.

Section IV. Plan Maintenance

VDH expects that this plan will undergo periodic revisions as situations in Vermont change and as guidance from CDC is updated. Epi will review it at least annually and revise it as appropriate.

ANNEX 1. Community-Based Containment Measures: Guidance and Recommendations for Cities and Towns

1. INTRODUCTION

Isolating influenza cases separates them from healthy persons and restricts their movement, thereby preventing transmission to others. It also allows for the focused delivery of specialized health care to ill persons. **Quarantining** persons who may have been exposed to influenza, but who are not ill, is intended to identify those at greatest risk for developing influenza and to prevent transmission to others. Quarantine allows for the monitoring of symptoms and the institution of appropriate separation procedures for the duration of the incubation period. In this way, quarantine reduces both the period of risk of transmission and the number of persons potentially exposed. This section is a guide for individual cities and towns, under the overall supervision of VDH. Cities and towns may also request the assistance of VDH district offices.

Isolation and quarantine are optimally performed on a voluntary basis, although several levels of government (local, state, federal) have the basic legal authority to compel mandatory isolation and quarantine of persons and communities to protect the public's health. At the federal level, the U.S. Secretary of Health and Human Services has the statutory responsibility for preventing the introduction, transmission, and spread of communicable diseases from foreign countries into the United States. Within the State of Vermont, the Commissioner of Health has authority to mandate involuntary quarantine and isolation.

Following the 2003 SARS (Severe Acute Respiratory Syndrome) epidemic, many countries adopted community-based strategies to control the spread of SARS-CoV. Communities should also consider these strategies for use during a large-scale influenza outbreak or for handling initial suspect cases and early cases before community transmission has taken place:

- requiring fever screening before entry into schools, work sites, and public buildings;
- requiring face masks in certain settings (such as on public transportation systems);
- establishing fever hotlines and referral services for concerned citizens; and
- implementing widespread environmental disinfection strategies.

Quarantine is generally observed at home. In addition a variety of quarantine strategies should be considered, including:

- Disseminate information in appropriate languages on restrictions in quarantine zones (using print/broadcast media, posters, leaflets, flyers, door-to-door, etc.)
- Disseminate information on quarantine rationale, procedures, and restrictions to neighboring zones/communities
- Restrict mass transit as necessary
- Restrict access routes to and from affected areas
- Minimize movements into quarantined areas by use of monitoring checkpoints, curfews, travel permits, health certificates
- Establish cooperative arrangement with neighboring zones/communities to prevent movement into or out of quarantine zone
- Clearly define who may enter quarantine zone
- Ensure that enforcement is maintained; this may require fines, penalties, barricades, and visible signs of boundary enforcement

Authorities should discontinue isolation/quarantine measures, maintenance of designated facilities, and enforcement measures at the conclusion of three incubation periods after the last reported case

2. ISOLATION OF INFLUENZA PATIENTS

Preventing influenza transmission requires limiting interactions between influenza cases and others. Influenza cases should be admitted to a health care facility/hospital for the purpose of isolation, especially during early stages of the pandemic, only if their clinical condition warrants, or if isolation in the home or alternate facility cannot be achieved effectively.

If an isolation room is not available for a patient admitted to a health care facility/hospital, the patient should be placed in a room with a patient(s) with suspected or confirmed influenza (cohorting). When a private room is not available and cohorting is not possible, a spatial separation of at least 3 feet should be maintained between the infected patient and other patients or visitors. Special air handling and ventilation is not necessary, and the door may remain open.

Cohorting patients may be difficult to accomplish in many hospitals, and facilities need to develop plans based on their individual resources (personnel, facility design, etc.). The following is CDC's suggested hierarchical approach in healthcare facilities:

- When possible, place patients with documented or suspected influenza in a private room
- When the number of patients with influenza exceeds the available private rooms, try to place influenza patients together in multi-bed rooms or wards
- When patients with and without influenza must be placed in a room together, try to avoid including uninfected patients most susceptible to influenza complications
- When multiple influenza patients are admitted, minimize the number of staff having contact with infected patients by assigning all influenza patients to a single or small group of health care personnel, who have been vaccinated and/or are taking antiviral medications for prophylaxis (if medications available and appropriate)
- When numerous cases are identified, consider placing all patients with documented or suspected influenza in one designated unit or ward (an influenza cohort), and assign vaccinated health care personnel to work in the designated influenza cohort unit

It may be preferable to monitor affected individuals in their own homes, if certain requirements are met. For example, if there is an immunosuppressed person also inhabiting the home, monitoring in an alternate, non-hospital facility may be necessary. An example of a feasible alternate lodging facility may include a motel room, with a separate entrance to the outside/outdoors, a private bathroom, perhaps a small refrigerator and/or microwave, and communication capabilities to the outside (by telephone).

The following measures are recommendations for isolating influenza cases in residential settings (homes) and alternate facilities (motels).

2.1 Basic Activities

- Before an influenza patient is confined to the home either the primary caregiver, the patient, or a public health worker should assess the residence to be certain that it has the features necessary for the provision of proper care and proper infection control measures.
- Isolation facilities should meet the following minimum requirements:
 - Primary caregiver (family member, neighbor, friend) available, if necessary, to assist the patient with basic needs
 - Functioning telephone, electricity, and drinkable water

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- Separate bedroom that will be occupied only by the influenza patient and with a door that can be kept closed at all times
- Separate bathroom that is designated for use only by the influenza patient
- Care for dependent children or others if the patient is the primary caregiver
- During the period of isolation, household members of influenza patients who are not providing care to the patient should be relocated, if possible. Alternatively, the influenza patient could be relocated to another site within the community (a motel room).
- If relocation is not possible, then interactions between the influenza patient and the household members should be minimized. Persons at risk of serious influenza complications—those with underlying medical diseases such as underlying heart or lung disease, persons with diabetes mellitus, and the elderly—should not interact with the patient.
- All persons in contact with the influenza patient should be educated regarding appropriate infection control practices, including hand hygiene and environmental decontamination. See <http://www.cdc.gov/handhygiene/> for more details.
- Influenza patients should wear a surgical or procedure mask during close contact (less than 3 feet) with uninfected persons to prevent the spread of infectious droplets. If an influenza patient is unable to wear a surgical/procedure mask, then household members should don a surgical/procedure mask when interacting with the patient.

2.2 Enhanced Activities: Isolation of Influenza Patients in Community Facilities

If a surge of influenza patients overwhelms existing health care capacity or if home isolation is not feasible for certain individual patients, then alternate facilities in the community may need to be used for isolating influenza cases and/or their asymptomatic contacts. Influenza pandemic preparedness planning must address the availability and use of existing structures, the management of patients lodged in these facilities, and resources for securing supplies to isolated and quarantined individuals.

- Consider the use of both existing structures (such as nursing homes, apartments, motels, and schools) and temporary structures (trailers, barracks, tents, or “bubble systems”)
- A city or town health officer in consultation with VDH, or VDH District Office personnel, should consider the following features in assessing appropriateness of alternate facilities:
 - Separate rooms for patients
 - Independent ventilation for each room
 - Access control to each room
 - Availability of potable water, bathroom, and shower facilities
 - Capacity for providing basic needs to patients
 - Rooms and corridors amenable to disinfection
 - Facilities for collecting and disposing of waste materials
 - Facilities for collecting and laundering items
 - Ease of access for delivery of supplies
 - Legal/property considerations
 - Ability to support appropriate infection control measures
 - Availability of food services and supplies

- Ability to provide an environment that supports the social and psychological well-being of patients
- Ability to support appropriate medical care
- Access to communication systems that allow for dependable communication within and outside the facility (telephones)

3. MANAGEMENT OF CONTACTS OF INFLUENZA PATIENTS

3.1 Basic Activities

In a limited influenza outbreak or early in a pandemic, close contacts of influenza patients may be managed through either active or passive monitoring, and either with or without restriction of movement before they develop symptoms of disease. Since communicability can occur before symptoms appear, consideration should be given to quarantine of contacts with high-risk exposures (such as health care workers involved in aerosol-generating procedures on an influenza patient) even in the absence of symptoms.

Contacts of influenza patients may be advised to:

- Remain vigilant for fever or respiratory symptoms for 4 days after exposure. Temperature readings should be taken and recorded twice a day
- Seek health care if symptoms (cough, sore throat, fever, shortness of breath) appear
- Inform health care provider in advance of presenting at the clinic or hospital that contact has been exposed to influenza and is now symptomatic

3.2 Enhanced Activities

In the event of a large influenza outbreak or high-risk exposure (such as exposure of health care personnel during intubation of an influenza patient) quarantine of asymptomatic contacts may be considered as a means of interrupting disease transmission. However, if influenza is so widespread that exposure cannot be determined or can be assumed, quarantine may be ineffective and therefore abandoned.

Quarantine represents a range of possible interventions that could be applied at the level of the individual, small group, or community. Quarantine may be used for:

- Individuals with close contact (within 3 feet, such as a household contact) with a known influenza patient
- Small groups with close contact (such as co-workers and health care workers with unprotected exposure) with an influenza patient
- Larger groups with an unspecified extent of exposures (such as social groups, persons in congregate settings, passengers on airplanes) to an influenza patient
- Communities in which the extent of influenza exposure for individuals is unknown but interventions are needed to control potential population exposures by increasing social distance and limiting interactions and movement within a community

Types of quarantine include:

- Home quarantine — Quarantine at home is most suitable for contacts that have a home environment in which their basic needs can be met and where the protection of unexposed household members is feasible.

- Quarantine in designated facilities — Contacts who do not have an appropriate home environment for quarantine or contacts who do not wish to be quarantined at home may be quarantined in specific facilities (motels, nursing homes, apartments, etc.) designated for this purpose.
- Work quarantine — this applies to health care workers or other essential personnel who have been exposed to influenza patients and who may need to continue working (with appropriate infection control precautions) but who are quarantined either at home or in a designated facility during off-duty hours.

The minimum criteria that must be met to enable the optimal implementation of home quarantine include:

- Access to educational materials about influenza and quarantine
- Ability to monitor one’s own symptoms (or have them monitored regularly by a parent, guardian or caregiver)
- Basic utilities (water, electricity, functional plumbing/septic system, garbage collection, and heating and air conditioning as appropriate)
- Basic supplies (clothing, food, hand hygiene supplies, laundry services, etc.)
- Mechanisms for communication, including telephone (for monitoring by health staff, reporting of symptoms, and accessing support services) and a computer if possible
- Access to food and food preparation
- Access to health care providers, health care centers, and ambulance personnel
- Access to supplies such as thermometers, fever logs, phone numbers for reporting symptoms or accessing services, emergency numbers, etc.
- Availability of mental health/psychological support services

4. MANAGEMENT OF HOUSEHOLD MEMBERS OF CONTACTS IN HOME QUARANTINE

No specific precautions are needed for household members of contacts who are in home quarantine, as long as the person under quarantine remains asymptomatic. Household members of quarantined individuals can go to school, work, etc., without restrictions. If the contact develops symptoms, then s/he should immediately notify medical/public health authorities to obtain medical evaluation, and at that point, household members should remain at home. VDH Epi should be contacted for further instructions.

5. COMMUNITY-BASED CONTROL MEASURES

Community-based control measures are intended to reduce the risk of influenza transmission by limiting the potential for social interactions (for example, canceling public events, implementing community “snow days,” etc.) and by implementing broad measures for the public to prevent inadvertent exposures (such as fever monitoring in public places, use of masks). The effectiveness of these mass measures has not been completely evaluated. VDH will make the decision to institute community containment measures, and the nature and scope of these measures, based upon the extent of the outbreak and the availability of resources.

Important factors that VDH will consider in determining a threshold for community action include: numbers of cases and close contacts, characteristics of local disease transmission (that is, speed of spread, number of generations), types of exposure categories (travel-related, close contact, health care worker,

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unlinked transmission, etc.), morbidity and mortality rates, extent of community influx and efflux, and the availability of local health care and public health resources.

VDH, through the State EOC structure and with guidance from the CDC, may carry out both basic and enhanced activities to curb the spread of illness within Vermont, as follows.

5.1 Basic Activities

- VDH will provide community information and education about influenza, its spread, and how to prevent transmission
- VDH will promote practices of “respiratory hygiene” and hand hygiene, as a means for the general public to protect itself

5.2 Enhanced Activities

VDH may carry out enhanced activities in designated communities or neighborhoods and may request assistance from local authorities. Such enhanced activities may include:

- Institute “snow days” or “shelter in place”
- Suspend public gatherings
- Monitor fever in public places
- Close public buildings and spaces
- Cancel public events
- Close non-essential government functions (public library, etc.)
- Request voluntary or mandate closing of businesses and institutions (such as schools, entertainment, recreational and religious facilities) and other gatherings and events

There may be circumstances of an advanced epidemic for which VDH may enact other more extreme measures, such as:

- Restrict travel (air, rail, water, motor, pedestrian)
- Stop mass transit services
- Restrict geographic re-locations

A checklist to assist communities in preparing to assist with community-based control measures is included in Appendix 5.

6. COMMUNICATION AND COMMUNITY-BASED CONTAINMENT MEASURES

6.1 Introduction

Open flow of information between State agencies and local officials, and the dissemination of accurate and timely information to Vermont citizens will be essential to help control the spread of influenza illness and the spread of panic in the event of an influenza pandemic. Information for the public, both oral and written, must be available in English as well as in other languages to educate non-English speaking citizens.

6.2 Communication in Phases 1 through 5

As part of its day-to-day activities, VDH has primary responsibility for keeping the public informed of disease outbreaks and helping to control and prevent the spread of disease. The Director of Communication

or PIO will ensure that the proper personnel give out the appropriate information. VEM will assist in establishing this communication structure as needed. Key communicators will be established to help ensure that accurate and consistent information is given to the press.

6.3 Communication in Phase 6

- If necessary, the Commissioner will announce mandatory closings of public or private spaces, cancellation of public events, and other community control measures. The commissioner may also make recommendations to other public officials for similar actions.
- The Commissioner will hold press conferences at appropriate intervals, potentially daily if needed, to communicate effectively with the media and the public. Daily information may also be available to the press through web-based sources.
- The Director of Communication will alert the Director of VEM, the Governor's Office and other appropriate State agencies, government officials, and community partners as required.

APPENDIX 1. DEFINITIONS

An **antiviral** medication destroys or inhibits the reproduction of viruses.

A **confirmed case** of influenza disease is a person with influenza-like illness and with laboratory-confirmed influenza virus infection. However, a diagnosis of influenza is usually made on a clinical basis, particularly if influenza has been reported in the community.

Community containment measures refer to the separation of infected or exposed persons from non-infected persons by use of isolation, quarantine, or other restrictions on movement and activities.

A **contact** is a person who has been exposed to an influenza case during the infectious period (defined below). A **close contact** is a person who has cared for or lived with someone with influenza or had direct contact with respiratory secretions or body fluids of a patient with influenza. A person is considered a close contact if they kissed or hugged, shared eating or drinking utensils, talked within 3 feet, or touched a case directly. Close contact does not include activities such as walking by a person or sitting across a waiting room or office for a brief time.

The **incubation period** is the time from exposure to an infectious disease to symptom onset. The incubation period for seasonal influenza averages two days, but can vary from one to four days.

Infection control measures decrease the risk for transmission of infectious agents through proper hand hygiene, scrupulous work practices, and use of PPE (masks, gloves, gowns, and eye protection). The types of infection control measures are based on how an infectious agent is transmitted and include standard, contact, droplet, and airborne precautions (<http://www.cdc.gov/ncidod/hip/ISOLAT/Isolat.htm>). The recommendations for influenza are standard, contact, and droplet precautions, defined below:

- A. Standard precautions are work practices required for the basic level of infection control. They center on proper hand hygiene and include use of PPE to serve as protective barriers and appropriate handling of clinical waste.
- B. Contact precautions are work practices designed to reduce the risk of transmitting infectious agents by direct or indirect contact with an infectious person. Direct contact transmission involves a direct body surface-to-body surface contact and physical transfer of infectious agents between an infected person and a susceptible host. Indirect-contact transmission involves contact of a susceptible host with a contaminated intermediate object, such as contaminated instruments or dressings, or contaminated hands that are not washed or gloves that are not changed between patients. Contact precautions may also include the use of PPE (gloves, gown, surgical mask, goggles or face shield) to reduce the spread of infectious agents.
- C. Droplet precautions are designed to reduce the risk of droplet transmission of infectious agents. Droplet transmission occurs when droplets containing infectious agents generated by an infectious person are propelled a short distance (about 3 feet) through the air (by coughing, sneezing, or talking) and deposited on the conjunctivae or mucous membranes of the mouth or nose of a susceptible person. Droplet precautions include the use of PPE (gloves, gown, surgical or other mask, and goggles or face shield) to reduce the spread of infectious agents.

Infectious period is the period of time that a case can transmit infection to others within 3 feet distance; for novel strain of influenza, assumed to begin 1 day before onset of symptoms and end 7 days after resolution of fever (14 days for children under 12 years).

Influenza-like illness (ILI) is defined for surveillance purposes as 1) a fever $\geq 100^{\circ}\text{F}$ and 2) cough and/or sore throat in the absence of a known cause. ILI may present differently in the elderly and very young.

An **influenza pandemic** is a worldwide outbreak of a novel influenza virus causing sudden, pervasive illness in all age groups, and can severely impact even otherwise healthy individuals. Influenza pandemics occur infrequently and at irregular intervals and have the potential for substantial impact resulting in increased morbidity and mortality, significant social disruption, and severe economic costs.

Isolation and quarantine are standard practices in public health, and both aim to control exposure to infected or potentially infected persons. Both may be used voluntarily or compelled by public health authorities and can be applied on an individual or population level.

- **Isolation** refers to the separation of persons with a specific contagious illness from contact with susceptible persons and the restriction of their movement to contain the spread of that illness. Isolation usually occurs in a hospital but can be in a home or alternative isolation facility.
- **Quarantine** refers to the separation and restriction of movement of well persons who may have been exposed to an infectious agent and may be infected but are not yet ill. Quarantine usually occurs in the home but can be in a community facility or hospital. The term “quarantine” can also be applied to restrictions of movement into or out of buildings, other structures, and public conveyances. States generally have authority to invoke and enforce quarantine within their jurisdictions, although quarantine laws vary among states. The CDC is also empowered to detain, medically examine, or conditionally release persons suspected of carrying certain communicable diseases at points of arrival in and departure from the United States or across state lines.
 - **Work quarantine** – In the event that quarantine is used as an occupational exposure management tool, some health care workers (HCWs) may need to continue working to ensure sufficient staffing levels. Appropriate measures should be developed for HCWs to comply with quarantine orders and to continue working at the health care facility. Limitations on alternative employment will be needed.

Nosocomial refers to a health care setting, such as a hospital or clinic. Typically, nosocomial transmission refers to spread of an infectious disease from a patient in a health care setting or from a health care worker to another patient, worker, or visitor in the same setting.

An **outbreak** is an unexpected increase in the number of cases of a specific disease or clinical symptom.

Personal protective equipment (PPE) is barrier protection to be used by an individual to prevent disease transmission. PPE may include gowns, gloves, masks, goggles, or face shields. The type of mask (surgical or procedure, N95, or powered, air-purified respirator) is disease-specific and defined in the type of precautions.

Prophylaxis is an intervention to prevent development of clinical disease.

Recrudescence is the recurrence of a pathological process or its symptoms after a period of improvement or quiescence.

Respiratory hygiene and cough etiquette refers to the institution of public health measures to avert the transmission of influenza and/or other infectious diseases passed via respiratory secretions. The specific measures are listed in Appendix 4.

Acronyms Used in This Document

CDC	U.S. Centers for Disease Control and Prevention
CPH	VDH Division of Community Public Health
CRA	Countermeasures Response Administration (at CDC)
DPS	Vermont Department of Public Safety
EOC	Emergency Operation Center
EOP	Emergency Operation Plan
HAN	Health Alert Network
HCW	Health care worker
HRSA	U.S. HHS Health Resources and Services Administration
Epi	Infectious Disease Epidemiology – Section of VDH
ILI	Influenza-like illness
IZ	VDH Immunization Program
NH	New Hampshire
NYS	New York State
PHLIS	Public Health Laboratory Information System
PIO	VDH Public Information Office (Communication Office)
PPE	Personal protective equipment
SARS	Severe Acute Respiratory Syndrome
SEOC	State Emergency Operation Center
SNS	Strategic National Stockpile
SSF	State Support Function
U.S.	United States
U.S. HHS	U.S. Department of Health and Human Services
VACMAN	CDC's Vaccine Management System
VAERS	Vaccine Adverse Events Reporting System
VAHHS	Vermont Association of Hospitals & Health Systems
VDH	Vermont Department of Health
VDH Lab	Vermont Department of Health Laboratory
VEM	Vermont Emergency Management - Division of DPS
VSA	Vermont Statutes Annotated
VT	Vermont
WHO	World Health Organization

Appendix 3(a): Interim Sequence for Providing Antiviral Medications:³

The goals of influenza pandemic planning are as follows: *First, to minimize serious illness and overall deaths, and second to minimize societal disruption in Vermont because of an influenza pandemic.*

VDH will use the following sequence as planning guidance but will re-examine it at the time of a pandemic alert when epidemiologic data about the pandemic virus is available.

1. Persons involved in control and eradication of animal influenza
2. Treatment of persons hospitalized for influenza and their close contacts
3. Treatment of ill health care and emergency services workers
4. Treatment of ill high-risk persons in the community
5. Prophylaxis of health care workers
6. Control outbreaks in high-risk residents of institutions (nursing homes and other chronic care facilities)
7. Prophylaxis of essential service workers
8. Prophylaxis of high-risk persons hospitalized for illnesses other than influenza
9. Prophylaxis of high-risk persons in the community.

The mass prophylaxis of children to control a pandemic is currently not recommended.

Appendix 3(b): Interim Sequence for Providing Influenza Vaccine:

1. Persons involved in control and eradication of animal influenza
2. Health care workers who care for patients in acute and long-term care facilities and home care settings, public health workers involved in vaccine delivery effort, first responders, and household members of these groups
3. Workers performing vital community services (such as public safety and order; maintaining utility service and essential transportation; working on production of influenza vaccine) and household members of these groups
4. Persons at high risk of developing severe outcomes based on age, underlying conditions, or residence in a long-term care facility
5. Household contacts of persons with high-risk medical conditions
6. Persons not included in groups 1-5

³ Adapted from Canadian Pandemic Influenza Plan, February 2004, Annex E p. 105.

APPENDIX 4 - Guidelines for Respiratory Hygiene and Cough Etiquette

Appendix 4: Guidelines for Respiratory Hygiene and Cough Etiquette:

Public health measures for universal respiratory hygiene and cough etiquette will reduce influenza and other infectious disease transmission. Key features of this campaign include:

- Provide surgical or procedure masks to all patients with symptoms of a respiratory illness; provide instructions on the proper use and disposal of masks
- For patients who cannot wear a surgical or procedure mask, provide tissues and instructions on when to use them (when coughing, sneezing, or controlling nasal secretions), how and where to dispose of them, and the importance of hand hygiene after handling this material
- Provide hand hygiene materials in waiting room areas and encourage patients with respiratory symptoms to perform hand hygiene
- Designate an area in waiting rooms where patients with respiratory symptoms can be segregated (ideally by at least 3 feet) from other patients who do not have respiratory symptoms
- Place patients with respiratory symptoms in a private room or cubicle as soon as possible for further evaluation
- Implement use of surgical or procedure masks by health care personnel during the evaluation of patients with respiratory symptoms
- Consider the installation of Plexiglas barriers at the point of triage or registration to protect health care personnel from contact with respiratory droplets
- If no barriers are present, instruct registration and triage staff to remain at least 3 feet from unmasked patients and to consider wearing surgical masks during respiratory infection season
- Continue to use droplet precautions to manage patients with respiratory symptoms until it is determined that the cause of symptoms is not an infectious agent that requires precautions beyond standard precautions

Posters to promote respiratory and hand hygiene, and transmission control are available on the VDH website at <http://www.healthyvermonters.info>. See Appendix 6 for a preview of these posters.

Appendix 5 - Preparedness and Response Checklist for Community Containment

General Activities for Communities:

- Establish a local incident command structure that can be used for influenza pandemic response
- Establish a legal preparedness plan
- Establish a continuity of operations plan to maintain essential services
- Establish relationships with essential local partners, such as law enforcement, first responders, health care facilities, neighboring jurisdictions, and the legal community
- Plan for monitoring and assessing local factors that determine types and levels of response, including available local resources and the level of public acceptance and participation
- Develop message strategies for the local public, local government decision makers, regional health care and emergency response providers, and the law enforcement community

Management of Cases and Contacts (including Quarantine) in cooperation with VDH and VEM:

- Town health officers should become familiar with VDH protocols, tools, and databases for
 - Case surveillance
 - Clinical evaluation and management
 - Contact tracing, monitoring, and management
 - Reporting criteria
- Become familiar with VDH standards and tools for home and non-hospital isolation and quarantine
- Establish supplies for non-hospital management of cases and contacts
- Establish a telecommunication plan for “hotlines” or other services for public information
- Develop a plan in cooperation with VDH and VEM to ensure provision of essential services and supplies to those in isolation and quarantine, including:
 - Food and water
 - Shelter
 - Medicines and medical consultations
 - Mental health and psychological support services
 - Other supportive services such as day care, etc.
 - Transportation to medical treatment, if required

Non-Hospital-Based Isolation of Cases in cooperation with VDH:

- Town health officers, with VDH district office assistance, should identify and assess appropriate community-based facilities for persons for whom home isolation is indicated but who do not have an appropriate home setting, such as travelers, elderly living alone, people in group quarters, and homeless populations
- Develop policies related to use of these facilities
- Ensure that required procedures for assessment of potential isolation sites (both home and community facilities) are available and up to date, and coordinated with the VDH District Office

Community Containment Measures

- Ensure that legal authorities and procedures are in place to implement movement restrictions as necessary
- Identify key partners and personnel for the implementation of movement restrictions, including quarantine, and provision of essential services and supplies:
 - VDH and VEM
 - Law enforcement
 - First responders
 - Other government service workers
 - Utilities
 - Transportation Industry
 - Local businesses
 - Schools and school boards
- Attend training programs and drills
- Ensure training in Personal Protective Equipment for all identified responders and providers as necessary
- Develop plans for mobilization and deployment of public health and other community service personnel

Appendix 6
Hygiene Posters

The “ACHOO!” poster can be found on the VDH website at
<http://www.healthyvermonters.info/hs/epi/idepi/flu/FluPreventPoster.pdf>

The “Ask for a Mask” poster can be found on the VDH website at
<http://www.healthyvermonters.info/hs/epi/idepi/InfectionControlFINAL.pdf>

The “Don’t Share” poster can be found on the VDH website at
<http://www.healthyvermonters.info/hs/epi/idepi/flu/fluofficePoster.pdf>