1. Purpose

1.1. The purpose of this plan is to coordinate the response of Boston University in the event of an infectious disease outbreak or pandemic influenza event that affects the Boston University community. This plan is a flexible guide, applicable to any disease outbreak.

2. Background

2.1. Influenza viruses are of three types, A, B and C, of which only two, the A and B types, produce serious disease in humans. The A type (influenza/A) has 144 subtypes, designated by the combinations of 16 different H subtypes and 9 different N subtypes. The H and N stand for two viral proteins, hemagglutinin and neuraminidase, that form the outside coat of the virus and are the proteins the human immune system “sees” when reacting to infection. Regular (“seasonal”) influenza involves only three of these combinations, H1N1 (also the subtype of the 1918 Spanish Flu), H2N2 (the cause of the 1957 pandemic) and H3N2 (the cause of the last pandemic in 1968). After the first years of those pandemics the population has had a chance to develop population immunity and the toll from the periodic seasonal outbreaks has been manageable, although influenza still produces a yearly mortality of close to 40,000 people in the US. Most are in the over 65-age group.

The other influenza/A subtypes (other H and N combinations) are natural, often harmless, infections of birds. Whenever a new combination successfully crosses the species barrier to humans there is the potential for a pandemic because we don't have a natural immunity to subtypes
other than the ones that produced pandemics in the last century and are currently circulating (H3N2 and H1N1). In 1997 the first human infections were reported with an avian virus with subtype designation H5N1. There were 18 cases and 6 deaths. After a pause of 6 years, the disease reappeared in Asia and Southeast Asia and to date has been responsible for 142 illnesses and 245 deaths as of July 15, 2008. Since its appearance in 1997 the virus has undergone a series of mutations that has allowed it to produce fatal disease in terrestrial birds (mainly poultry) and some wild birds, although it also produces asymptomatic infection in many wild aquatic waterfowl. As noted it has also infected humans and other mammalian species (cats, dogs, and some other mammals), but so far has not changed to the point where it has achieved efficient transmission between people or between birds and people. Human infection remains relatively rare given the very large number of exposures between people and tens of millions of infected poultry in almost 50 countries. This is fortunate, because so far the human disease has exhibited a truly impressive case fatality rate of over 60%. By contrast, the estimated case fatality of the 1918 flu was 2–3%.

Thus we have yet to see the emergence of a pandemic strain, that is, one that would be as easily transmissible from person to person as current human influenza viruses (H3N2 and H1N1). But on one score, the human cases of H5N1 already have one feature of a pandemic strain: they involve predominantly young adults, the very age group of our students and young faculty. To date 90% of the cases are under the age of 40. The same phenomenon was seen in the 1918 flu. This one appears even more deadly, although if it were to mutate to an efficiently transmissible virus its virulence might also change, presumably downward. At this moment we don't know how virulent it would be, if such a mutation to pandemic
capability will ever happen, and if it does, how soon it will happen. As far as we know, it could be happening undetected somewhere like Indonesia (the current bird flu hotspot) at this moment, or in a month, or next year – or, if we are lucky, never. However, influenza pandemics happen at intervals, so it is prudent to assume another will come along at some point, whether H5N1 or another novel subtype to which we have not yet been exposed and which will therefore spread. Recently an infection of a toddler with an H9N2 virus was reported in Hong Kong.

If a pandemic gets under way, we can expect it to reach almost any point on the globe within a month to 6 weeks because of the speed of modern transportation and the contagiousness of the virus. One can be infectious up to 24 hours before developing symptoms; so shutting down transportation is not a feasible method to stop it. Once underway it is unstoppable, and the only prudent way to prepare is to be ready to manage the consequences. Those consequences could be severe for the University and for the community. An estimated 30% to 40% absenteeism rate with serious illness requiring intensive care in an appreciable fraction of the sick, an appreciable mortality, especially amongst the young, and absences that can run 3 or 4 weeks would require the institution to suspend classes, with all that entails.

3. Concept of Operations

3.1. There are two overarching objectives for infectious disease or pandemic influenza response planning.

3.1.1. Secure to the maximum extent the safety and security of our students and staff.
3.1.2. Secure to the extent compatible with the above, maintenance of the physical plant and other functions to allow a speedy return to full service once the emergency is past.

3.2. This Infectious Disease Response Plan will be implemented as an annex to the existing Boston University Emergency Response Plan. Unless otherwise specified, in this plan, the roles and responsibilities of University officials are defined in the Emergency Response Plan.

3.3. The plan specifies actions by various University departments at different levels of an outbreak or a pandemic. This staged response is consistent with pandemic influenza planning of Massachusetts, United States and international public health organizations. Boston University’s four levels are defined as follows:

3.3.1. Preparation No current hazard to persons – no sustained human-to-human spread

3.3.2. Phase A Intense planning and preparation – small localized clusters of human-to-human transmission anywhere in the world. International travel advisories begin (WHO Phase 4 – CDC Stage 1)

3.3.3. Phase B Pandemic imminent – large clusters, high rate of transmissibility, prepare to cancel events and suspend classes, travel warning or restrictions (WHO Phase 5 – CDC Stage 2)

3.3.4. Phase C Pandemic Period – increased and sustained transmission, public health agency recommendation, classes suspended, rising employee absenteeism (WHO Phase 6 – CDC Stages 3, 4 or 5)
4. **Boston University Incident Command Organization**

4.1. Incident Commander  Peter Fiedler (Administrative Services VP), Gary Nicksa (Operations VP), Kelly Nee (Executive Director Public Safety), Kevin Tuohy (Executive Director Research Compliance),

4.2. Safety Officer  Kate Mellouk (Associate VP – Research Compliance)

4.3. Public Information  Steve Burgay (VP of Marketing and Communications)

4.4. Finance Officer  Martin Howard (VP Financial Affairs)

4.5. Logistics Officer  Tom Daley (Assoc VP, OFMP)

4.6. Operations Officer  Judy Platt (Director, Student Health Services)

4.7. Planning Officer  Stephen Morash (Director of Emergency Management)

5. **Roles and Responsibilities by Emergency Phase**

5.1. **Preparation Phase**  No current hazard to persons – no sustained human-to-human spread

5.1.1. All Incident Command Members

5.1.1.1. Continue to monitor global and national situation

5.1.1.2. Continue to meet and coordinate with Boston Public Health Officials and other universities

5.1.1.3. Continue to modify and update the University’s Response Plan. Develop focused plans as needed

5.1.1.4. Develop a Continuity of Operations (COOP) for the University.

5.1.2. Incident Commander

5.1.2.1. Continue to modify and update the University’s Response Plan.

5.1.2.2. Develop focused plans as needed

5.1.2.3. Begin to develop a distance learning plan and develop a policy for suspension of classes due to a pandemic influenza

5.1.2.4. Develop tabletop exercises and implement exercises as appropriate

5.1.2.5. Develop a Continuity of Operations (COOP) for the University.

5.1.3. Director of Emergency Management

5.1.3.1. Develop tabletop exercises and implement exercises as appropriate.

5.1.3.2. Maintain the life safety systems in University facilities
5.1.4. Office of Environmental Health and Safety
   5.1.4.1. Assess respiratory protection plan and resources. Obtain additional personal protective equipment and N95 respirators.
   5.1.4.2. Monitor students/ staff traveling in affected areas

5.1.5. Vice President For Information Technology
   5.1.5.1. Develop a Continuity of Operations (COOP) for the University
   5.1.5.2. Update the University’s webpage to provide current flu information.
   5.1.5.3. Maintain the University’s communications systems

5.1.6. Office of the Provost
   5.1.6.1. Begin to develop a distance learning plan and develop a policy for suspension of classes due to a pandemic influenza
   5.1.6.2. Monitor students traveling in affected areas

5.1.7. Office of Facilities Management and Planning
   5.1.7.1. Identify essential staff that can maintain the University’s facilities and operations

5.1.8. Human Resources
   5.1.8.1. Identify essential staff that can maintain the University’s facilities and operations

5.1.9. Medical Branch (Public Health, Student Health, Occupational Health)
   5.1.9.1. Provide special training for staff Task Force and Incident Commanders.

5.1.10. Dining Services
   5.1.10.1. Identify essential food service personnel and ensure their presence during a disaster. Evaluate the food supply chain and consider stockpiling food

5.2. Phase A  Intense planning and preparation – small localized clusters of human-to-human transmission anywhere in the world.
   International travel advisories begin (WHO Phase 4 – CDC Stage 1)

5.2.1. All Incident Command Members
5.2.1.1. Report suspicious illnesses to Student or Occupational Health
5.2.1.2. Develop and implement hand washing campaign
5.2.1.3. Develop a detailed information and media strategy

5.2.2. Incident Commander
5.2.2.1. Develop telecommuting plan and policies for faculty and staff
5.2.2.2. Develop a detailed information and media strategy
5.2.2.3. Intensively communicate with campus faculty, staff, students and parents
5.2.2.4. Update all plans as appropriate
5.2.2.5. Follow WHO and US Government guidelines on foreign travel and monitor faculty/staff traveling in affected region(s).
5.2.2.6. Determine if police should be used to transport suspected victims to hospital

5.2.3. Information Officer, Vice President of Marketing and Communications
5.2.3.1. Develop a detailed information and media strategy

5.2.4. Executive Director of Public Safety
5.2.4.1. Train police, security and dispatchers on Pandemic Flu.
5.2.4.2. Determine if police should be used to transport suspected victims to hospital

5.2.5. Director of Emergency Management
5.2.5.1. In conjunction with the Director of Student Health Services, develop a mass dispensing plan for the distribution for vaccines/prophylaxis
5.2.5.2. Determine if police should be used to transport suspected patients to hospital

5.2.6. Office of Environmental Health and Safety
5.2.6.1. Train police, security and dispatchers on Pandemic Flu.

5.2.7. Vice President For Information Technology
5.2.7.1. Intensively communicate with campus faculty, staff, students and parents

5.2.8. Office of the Provost
5.2.8.1. Continue to develop distance learning plan
5.2.8.2. Develop telecommuting plan and policies for faculty and staff

5.2.9. Office of Facilities Management and Planning
5.2.9.1. Increase the distribution of hand sanitizers by custodial staff

5.2.10. Human Resources
5.2.10.1. Develop telecommuting plan and policies for faculty and staff

5.2.11. Medical Branch (Public Health, Student Health, Occupational Health)
5.2.11.1. Develop a mass dispensing plan for the distribution for vaccines/prophylaxis
5.2.11.2. Post signs that students and staff who have been out of the country should notify Student Health immediately.
5.2.11.3. Formulate plans for quarantine/furlough of students/staff.
5.2.11.4. Isolate exam rooms of patients with flu-like symptoms.
5.2.11.5. Have respiratory equipment available.
5.2.11.6. Follow local guidance for evaluation and treatment.
5.2.11.7. Monitor health care workers.
5.2.11.8. Train police, security and dispatchers on Pandemic Flu.

5.2.12. Dining Services
5.2.12.1. Increase the distribution of hand sanitizers by custodial staff
5.2.12.2. Formulate detailed plans for alternate dining services for students and staff.
5.2.12.3. Ensure food delivery process will not be affected.

5.2.13. Office of Housing and Office of Residence Life
5.2.13.1. Initiate influenza awareness training for RA’s.

5.3. Phase B Pandemic imminent – large clusters, high rate of transmissibility, prepare to cancel events and suspend classes, travel warning or restrictions (WHO Phase 5 – CDC Stage 2)

5.3.1. All Incident Command Members
5.3.1.1. Report suspicious illnesses to the Student or Occupational Health
5.3.2. Incident Commander
5.3.2.1. Consider suspending classes and canceling public functions and athletic events
5.3.2.2. Continue daily communication with campus community. Update BU webpage as instructed.
5.3.2.3. Initiate poster and email campaign for hand washing and other self-protection

5.3.3. Information Officer, Vice President Marketing and Communications
5.3.3.1. Continue daily communication with campus community. Update BU webpage as instructed.
5.3.3.2. Initiate poster and email campaign for hand washing and other self-protection

5.3.4. Executive Director of Public Safety
5.3.4.1. Implement policy on transporting individuals to hospital

5.3.5. Director of Emergency Management
5.3.5.1. Coordinate Command Center Staffing and Develop Incident Action Plans

5.3.6. Office of Environmental Health and Safety
5.3.6.1. Incident Command Members receive respirator training and respirators

5.3.7. Vice President For Technology
5.3.7.1. Continue daily communication with campus community. Update BU webpage as instructed.
5.3.7.2. Initiate poster and email campaign for hand washing and other self-protection
5.3.7.3. Arrange for an emergency telephone line for Pandemic Flu issues

5.3.8. Office of the Provost
5.3.8.1. Consider suspending classes and canceling public functions and athletic events

5.3.9. Medical Branch (Public Health, Student Health, Occupational Health)
5.3.9.1. Develop a student/ staff furlough/ quarantine management plan
5.3.9.2. Isolate suspected cases. Notify Public Health, CDC and the IC.
5.3.9.3. Initiate vaccination or prophylaxis as appropriate.
5.3.9.4. Implement policy on transporting individuals to hospital

5.3.10. Office of Housing and Office of Residence Life
   5.3.10.1 Set up a clearinghouse for dining and housing
   5.3.10.1 Develop a student/staff furlough/ quarantine management plan

5.4. Phase C  Pandemic Period – increased and sustained transmission, public health agency recommendation, classes suspended, rising employee absenteeism (WHO Phase 6 – CDC Stages 3, 4 or 5)

5.4.1. All Incident Command Members
   5.4.1.1. Report suspicious illnesses to the Student or Occupational Health

5.4.2. Incident Commander
   5.4.2.1. Activate the Command Center
   5.4.2.2. Coordinate all actions with Boston EOC.
   5.4.2.3. Implement distance learning and staff telecommuting
   5.4.2.4. Consider closing buildings frequented by infected person.
   5.4.2.5. Ensure that all functional ICS groups have appropriate staffing
   5.4.2.6. Evaluate information on institutional effects and set response priorities
   5.4.2.7. Family notification of ill students, faculty or staff
   5.4.2.8. Order quarantine of buildings.
   5.4.2.9. Family notifications of fatalities

5.4.3. Executive Director of Public Safety
   5.4.3.1. Family notification of ill students, faculty or staff
   5.4.3.2. Secure buildings as directed by IC
   5.4.3.3. Post signage.
   5.4.3.4. Deny entry or exit as directed by the IC

5.4.4. Director of Emergency Management
   5.4.4.1. Assist Incident Commander as required
5.4.5. Office of Environmental Health and Safety
  5.4.5.1. Notify Building Emergency Action Coordinators
  5.4.5.2. Assist health care centers.

5.4.6. Office of Facilities Management and Planning
  5.4.6.1. Shut off utilities to buildings as instructed by the IC

5.4.7. Medical Branch (Public Health, Student Health, Occupational Health
  5.4.7.1. Activate plans to quarantine students/staff in conjunction with Boston Public Health Commission guidance.
  5.4.7.2. Assist with relocation of students if quarantined
  5.4.7.3. Isolate victim in Student Health
  5.4.7.4. Locate people who had been in contact with patient
  5.4.7.5. Arrange for counseling
  5.4.7.6. Arrange for screening for those who came in contact with the patient
  5.4.7.7. Arrange Mortuary services

5.4.8. Office of Housing and Office of Residence Life
  5.4.8.1. Activate plans to quarantine students/staff in conjunction with Boston Public Health Commission guidance.
  5.4.8.2. Assist with relocation of students if quarantined
  5.4.8.3. Identify student/staff events where confirmed patients have attended

5.4.9. Dining Services
  5.4.9.1. Implement feeding plan

6. References
  6.1. Boston University Emergency Response Plan, June 2017
  6.2. Boston University Community Assistance Center Operations Plan
  6.3. Boston University – Boston Public Health Commission Memorandum Of Agreement for a Closed Point of Distribution
7. Revision History

<table>
<thead>
<tr>
<th>Version</th>
<th>Section / Paragraph Changed</th>
<th>Changes Made</th>
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<td>V.1</td>
<td>N/A</td>
<td>None, Original Version</td>
<td>7/15/08</td>
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<tr>
<td>V.2</td>
<td>Plan Name</td>
<td>Revised to Infectious Disease Response Plan from Pandemic Influenza Response Plan</td>
<td>12/5/14</td>
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<td>V.2</td>
<td>4. Incident Command Organization</td>
<td>Updated Named Personnel</td>
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<td>V.2</td>
<td>5.2.11.2 5.4.7.1 5.4.8.1 5.4.8.3</td>
<td>Added provisions for staff</td>
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<td>V.2</td>
<td>5.2.11.3 5.3.9.1 5.3.10.2</td>
<td>Added provisions for furlough and staff</td>
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<td>V.3</td>
<td>Throughout</td>
<td>Revised references of Emergency Response Planning to Emergency Management</td>
<td>1/22/16</td>
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<td>V.4</td>
<td>4.1</td>
<td>Changed Incident Commander Thomas Robbins to Kelly Nee</td>
<td>5/8/17</td>
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