



The Johns Hopkins Office of Critical  
Event Preparedness and Response

Johns Hopkins Institutions'  
Pandemic Influenza, Other Respiratory Virus Plan, and  
Infectious Disease  
Preparedness, Response and Recovery Plan

May 30, 2013

Johns Hopkins Institutions’  
Pandemic Influenza Preparedness, Response and Recovery Plan  
May 1, 20113

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## Executive Summary

Within the Johns Hopkins Institutions (JHI), the Office of Critical Event Preparedness and Response (CEPAR) is charged with creating, maintaining, and implementing a Johns Hopkins Institutions’ Pandemic Influenza, Other Respiratory Virus, Infectious Diseases Preparedness, Response and Recovery Plan and ensuring that all Johns Hopkins Health System (JHHS)/Johns Hopkins Medicine (JHM) and Johns Hopkins University (JHU) affiliates prepare, maintain, update, and exercise their plans as extensions of the JHI level plan. The revised plan detailed within has been updated based on acquired knowledge and world and institutional experience with novel H1N1 (Swine) Influenza A virus, SARS, and H5N1 (Avian) Influenza.

A pandemic is a global disease outbreak. An influenza pandemic occurs when a new influenza virus emerges to which people have little or no immunity. The disease spreads easily person-to-person and can sweep across a country and around the world in a very short time. An influenza pandemic is projected to have a global impact on morbidity and mortality, thus requiring a sustained, large-scale response.

The purpose of this plan is to serve as the foundation for all Johns Hopkins pandemic preparation, mitigation, response, and recovery efforts. This plan incorporates pandemic influenza guidance from the World Health Organization (WHO), the Centers for Disease Control and Prevention (CDC), the United States Department of Health and Human Services (DHHS), and the Maryland Department of Health and Mental Hygiene (DHMH), along with information from Johns Hopkins subject matter experts (SMEs).

Pandemic influenza preparation is very much a collaborative process between JHHS/JHM and JHU, and has required extensive discussions on how various functional areas, including medical response, University operations, human resources, corporate communications, finance, legal, and employee health, will work together. It has also required collaboration with outside agencies, such as the Baltimore City Health Department (BCHD), the MD DHMH, and surrounding health care facilities and universities.

The JHI Pandemic Plan consists of three areas of responsibility. The first section of this document describes an overview of the JHI preparedness and planning process and provides background to the development of the JHI pandemic stages. The second part describes Johns Hopkins Institutions-level pandemic response actions (such as plan activation, implementation of the incident command system with unified command, communication strategies, and pandemic control measures). The third part describes recovery activities.

To ensure affiliate plans contain all the necessary elements and describe coordinated efforts across Johns Hopkins, CEPAR has developed planning checklists to guide each Johns Hopkins Affiliate Pandemic Plan (see Appendices).

Because of the evolving nature of this threat and response capabilities this is a working plan that will need be revised as needed.

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## I. Pandemic Influenza Preparedness

Within the Johns Hopkins Institutions (JHI), the Office of Critical Event Preparedness and Response (CEPAR) is charged with creating and implementing a Johns Hopkins Institutions’ Pandemic Influenza Preparedness, Response and Recovery Plan and ensuring that all Johns Hopkins affiliates prepare, maintain, update, and exercise their plans as extensions of the JHI level plan. The policy has been developed with the collaboration of JHU Risk Manager, JHM Office of Emergency Management, The Department of Epidemiology and Infection Prevention. This plan applies to the following entities:

- APL
- JHM
- JHU
- Johns Hopkins International
- JHHC
- JHCP
- JHHS
- Johns Hopkins University Clinics
- Student Health

When an influenza pandemic occurs, the WHO conservatively estimates that approximately 25% of the world’s population will fall ill, and worker absenteeism could reach 35% or higher, in aggregate, over the course of the pandemic. Medical interventions may be inadequate at the start of the pandemic and potentially for many months thereafter. Additionally, health care capacity could be inadequate to serve the millions who will require medical attention.

Since it is anticipated that an influenza pandemic will place extraordinary and sustained demands on JHI, we will need to respond quickly and decisively to help reduce the scope and magnitude of an otherwise potentially catastrophic event. Faced with this formidable challenge, the purpose of this Plan is to provide a framework for robust collaborative preparedness and response efforts, enhancing mitigation and a swift and coordinated recovery.

This Pandemic Influenza Plan defines the Johns Hopkins Institutions’ level planning for and response to a pandemic. In particular, it delineates the leadership, authority, response actions and communication strategies during an event, and also serves as a blueprint and operational framework for each affiliate’s pandemic influenza plan.

Because of the unpredictability of an influenza pandemic, this Plan is intended to be dynamic, with details subject to change. As planning continues at the federal, state, and local levels new information and updates will be added to this plan. Subsequent changes and or additions will be circulated across JHI. The most recent version of this Plan is located at <http://www.insidehopkinsmedicine.org/cepar>.

### A. Planning Approach

The initial Pandemic Influenza Plan was drafted in 2005 by the CEPAR Pandemic Influenza Steering Committee and seven workgroups composed of Johns Hopkins key representatives and SMEs with wide representation from JHHS and JHU entities. This current plan follows guidance and recommendations from the following documents:

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- The U.S. Department of Homeland Security’s (DHS) *National Strategy for Pandemic Influenza, November, 2005.*
- The U.S. Department of Health and Human Services’ (HHS) *Pandemic Influenza Plan, November, 2005.*
- The Centers for Disease Control and Prevention’s (CDC) *Influenza Pandemic Operation Plan, March, 2007.*
- The Occupational Safety and Health Administration’s (OSHA) *Guidance on Preparing Workplaces for an Influenza Pandemic, 2007.*
- The Maryland Department of Health and Mental Hygiene’s (DHMH) *Pandemic Influenza Response Annex, April, 2008.*

### **Planning Assumptions**

Development of the JHI Pandemic Influenza Plan was *based on assumptions regarding the evolution and impacts of a pandemic.* For a complete list of planning assumptions, read: [www.pandemicflu.gov/plan/pandplan.html](http://www.pandemicflu.gov/plan/pandplan.html). [August 2009].

### **CEPAR Planning and Preparedness Responsibilities:**

- Develop and maintain a JHI-wide Pandemic Influenza Preparedness, Response and Recovery Plan.
- Assist affiliates in developing pandemic response plans and ensure that affiliate plans are aligned with the Johns Hopkins Institutions’ Plan and are integrated across the system.
- Monitor and incorporate any federal, state, and local health department pandemic influenza plans and/or appropriate actions from these plans into the JHI Plan.
- Develop effective communication strategies for the JHI community.
- Work with JHHS/JHM and JHU Human Resources (HR) to develop HR policies that support the JHI Plan.
- Plan and coordinate the ethical decision-making structure to be used during a pandemic for issues such as altered standards of care and allocation of scarce resources.
- Develop a stratification scheme for prioritizing vaccination of health care workers, essential personnel and others at JHHS/JHM and JHU.
- Develop a stratification scheme for prioritization of use and distribution of antiviral medication as a scarce resource.
- Develop criteria or “triggers” for temporary closing of JHHS hospitals to visitors, non-essential vendors, and elective admissions/transfers.
- Develop guideline criteria or “triggers” for temporary closing of schools and other entities within JHU.

### **Subject Matter Experts:**

- Epidemiology and Infection Prevention (EIP)
  - Monitor emerging epidemiologic information and develop policies and protocols for infection control recommendations
- Health, Safety and Environment (HSE)
  - provide fit testing, education and other support services for personal protective equipment and other environmental issues
- General Services and Supply Chain
  - Monitor levels and inventory of critical PPE and equipment

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- Office of Antibiotic Management
  - Develop clinical use algorithms for antiviral agents
  - Support development of vaccination strategies
- Department of Pharmacy
  - Monitor levels of essential antiviral and antibiotic agents, and vaccines
  - Monitor for adverse events associated with antimicrobial use
  - Operational aspects of vaccination programs

### **Johns Hopkins Affiliate Planning and Preparedness Responsibilities:**

- Develop a pandemic plan that is aligned with CEPAR's JHI Plan and is integrated across the system.
- Establish contingency plans for situations in which primary sources of medical supplies become limited. Consider stockpiling enough consumable resources such as masks for the duration of a pandemic wave (6-8 weeks).
- Establish a strategy for rapidly providing pandemic-specific vaccinations or antivirals to employees, faculty, and students.
- Understand and develop work practice and engineering controls that could provide additional protection to employees, students and patients, such as improved ventilation and appropriate personal protective equipment (PPE).
- Identify mental health and faith-based resources for counseling employees, faculty, and students during the pandemic.
- Develop a strategy for accommodating staff with child, elder, and pet care responsibilities.
- Prepare and plan for operations with a reduced workforce.
- Develop a pandemic recovery plan.

## **B. Basis for the JHI Pandemic Influenza Plan Response Phases**

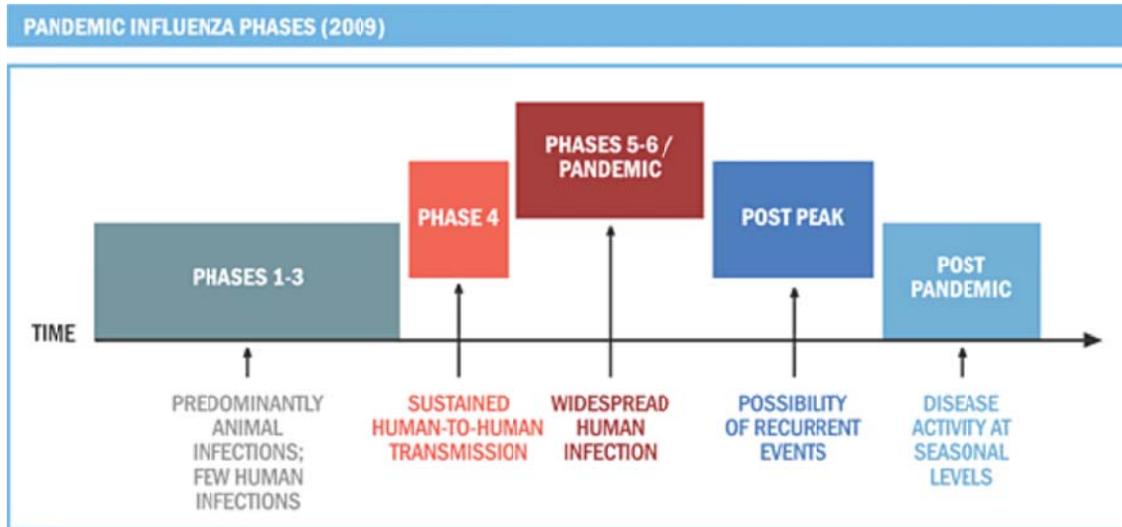
The JHI phased strategy to pandemic response was developed from three important sources: the WHO Global Pandemic Phases, the U.S. Federal Government Response Stages, and the CDC's Pandemic Severity Index.

### **WHO Global Pandemic Phases**

The WHO has devised an influenza pandemic classification system consisting of six phases that describe the evolution of a pandemic from a public health perspective. The decision to move from one phase to another is made by the Director-General of the WHO. Transitions from one phase to another are triggered by several factors, which include the epidemiological behavior of the disease and the characteristics of the circulating virus. The WHO phases reflect the progression of a pandemic worldwide, rather than in any one country

In the 2009 revision of the phase descriptions, WHO has retained the use of a six-phased approach for easy incorporation of new recommendations and approaches into existing national preparedness and response plans. Phases 1–3 correlate with preparedness in the **pre-pandemic** interval, including capacity development and response planning activities, while Phases 4–6 clearly signal the need for response and mitigation efforts during the **pandemic** interval.

**Table 1. WHO Pandemic Stages**



**U.S. Federal Government Response Stages**

For domestic preparedness planning, the United States developed six response stages that reflect the immediate and specific threat of a pandemic virus that arises and may pose a threat to the U.S. While the WHO phases provide a framework for evaluating the global situation, the U.S. response stages facilitate the implementation of United States domestic disease containment strategies and activities. The U.S. response stages are mapped to the WHO phases in Table 2.

**Table 2 U.S. Pandemic Stages**

U.S. Government Response Stages	
<b>0</b>	<b>New domestic animal outbreak in at-risk country</b>
<b>1</b>	Suspected human outbreak overseas
<b>2</b>	Confirmed human outbreak overseas
<b>3</b>	Widespread human outbreak in multiple locations overseas
<b>4</b>	First human case in North America.
<b>5</b>	Spread throughout the United States
<b>6</b>	Recovery and preparation for subsequent waves.

Source: U.S. DHHS Pandemic Influenza Implementation Plan  
<http://www.hhs.gov/pandemicflu/implementationplan/intro.htm>

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## CDC Pandemic Severity Index

In 2009, CDC developed a Pandemic Severity Index (PSI), which uses the case fatality ratio as the critical driver for categorizing the severity of a pandemic.<sup>1</sup> This index is designed to enable estimation of the *severity* of a pandemic on a population level to provide more accurate forecasting of the impact of a pandemic, and to enable recommendations to be made on the use of mitigation interventions that are matched to the severity of future influenza pandemics. (In this regard, the WHO Phases and U.S. Response Stages described above focus on *geography*.) A pandemic is assigned to one of five discrete categories of increasing severity (Category 1 to Category 5). This CDC PSI is useful for university purposes, because some of the major decision-making described in subsequent sections of this plan is based on severity – specifically, the case fatality ratio (the same parameter used by CDC for its PSI), as shown below.

CDC PSI	Case Fatality Ratio
1	< 0.1%
2	0.1% - < 0.5%
3	0.5% - < 1.0%
4	1.0% - < 2.0%
5	2.0% +

## C. The JHI Pandemic Response Stages

The JHI pandemic response stages evolved from mapping the WHO Phases and U.S. Government stages against the transmissibility and morbidity/mortality of the causative virus (similar to the CDC PSI). JHI has created three Institutional Pandemic Response Stages (Alert, Transitional and Critical), designed to reflect the operational levels of activity or response relative to normal or routine operations. As detailed in Table 3, the transition from one stage to the next is triggered by the defined geographical distribution of cases with sustained human-to-human transmission combined with the severity of the virus as defined by infectivity, morbidity, and mortality (case fatality ratio).

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<sup>1</sup> <http://www.cdc.gov/media/pdf/MitigationSlides.pdf>

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**Table 3. Johns Hopkins Institutions’ (CEPAR) Pandemic Stages**

Geographic Distribution  Severity	<b>World</b>  Confirmed human outbreak with sustained person-to-person transmission: U.S. Stage 1- 3 WHO Phase 4 or 5	<b>North America</b>  First human cases in the U.S., Canada, Mexico: U.S. Stage 4 or 5 WHO Phase 6	<b>Regional</b>  Cases spread throughout MD, DC, DE, VA, WV, PA, NYC: U.S. Stage 5 or 6 WHO Phase 6	<b>JHI</b>  Cases within the JHHS or the University, including APL.
<b>Low</b>  Low infectivity Low morbidity Low mortality	<b>Alert Stage</b>	<b>Alert Stage</b>	<b>Transitional Stage</b>	<b>Transitional Stage</b>
<b>Moderate</b>  Low infectivity and high morbidity/high mortality OR	<b>Alert Stage</b>	<b>Transitional Stage</b>	<b>Transitional Stage</b>	<b>Transitional Stage</b>
<b>Moderate</b> High infectivity and low morbidity/low mortality	Alert Stage	<b>Transitional Stage</b>	<b>Transitional Stage</b>	<b>Transitional Stage</b>
<b>High</b>  High infectivity High morbidity/high mortality	<b>Transitional Stage</b>	<b>Transitional Stage</b>	<b>Critical Stage</b>	<b>Critical Stage</b>

This institutional-level staged approach is more effective than previous JHI strategies, allowing for a more graded response that accounts for milder and more severe pandemics. Furthermore, this approach does not require each affiliate to redesign their plans, but rather to map out their current phases to each box of the Institutions-level stages. This ensures consistency of response across JHI.

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## II. Pandemic Response Activities

### A. Plan Activation

The decision to activate the JHI Pandemic Influenza Preparedness, Response, and Recovery Plan, and subsequently declare a change in the CEPAR JHI response stages, will be made by the CEPAR Director, following consultation with subject matter experts and the CEPAR Unified Command leadership.<sup>2</sup> While entry into the Alert Stage is likely to be subtle, due to the insidious onset of many pandemics, formal communication will be sent to the JHI community to announce activation of the Plan. There will be a similar formal communication with explanation for each escalation in Plan stages (e.g., Alert to Transitional Stage, and from Transitional to Critical Stage<sup>3</sup>).

### B. Incident Command

In order to manage this event, CEPAR (on behalf of the Institutions) will utilize an Institutions-wide incident command system (ICS) to address cross-cutting issues. *The Institutions-wide ICS is the umbrella structure used to unite the individual ICSs of the JHI affiliates for this purpose.* Implementation of an Institutions-wide ICS does not supplant the ICS structure at individual entity or campus levels. Rather, it is an “overlay” to ensure uniformity of response, appropriate resource sharing, and efficient and effective management of those aspects of the response that cut across the Institutions.

A traditional ICS has a single Incident Commander at the top of its chain-of-command structure. This is by far the most common approach for on-scene acute incident response. A single person assumes command responsibility, typically across functional units, agencies, and organizations.

It is sometimes desirable to use a command approach in which joint top-level decision-making occurs. **Unified Command** (UC) is a structure that brings together the Incident Commanders of the major entities involved in a given event in order to provide an effective, consistent response. At Johns Hopkins, this model is modified. Executive leaders, rather than Incident Commanders, are brought together as Unified Commanders. The UC explicitly links the entities responding to a given incident, and provides a forum for these entities to make top-level consensus decisions. The UC is responsible for overall management of the incident. The UC directs incident activities, including development and implementation of overall objectives and strategies, and approves ordering and releasing of resources. Members of the UC work together to develop a common set of incident objectives and strategies, share information, maximize the use of available resources, and enhance the efficiency of the individual response organizations.

The UC will be filled as a team by the highest leadership of the University, JHU-APL, JHHS/JHM, and CEPAR. The personnel who fill the other JHI Unified Command functions will be CEPAR personnel, and this Unified Command system will be managed by CEPAR. Throughout the remainder of this document, the JHI ICS will thus be referred to as CEPAR Unified Command.

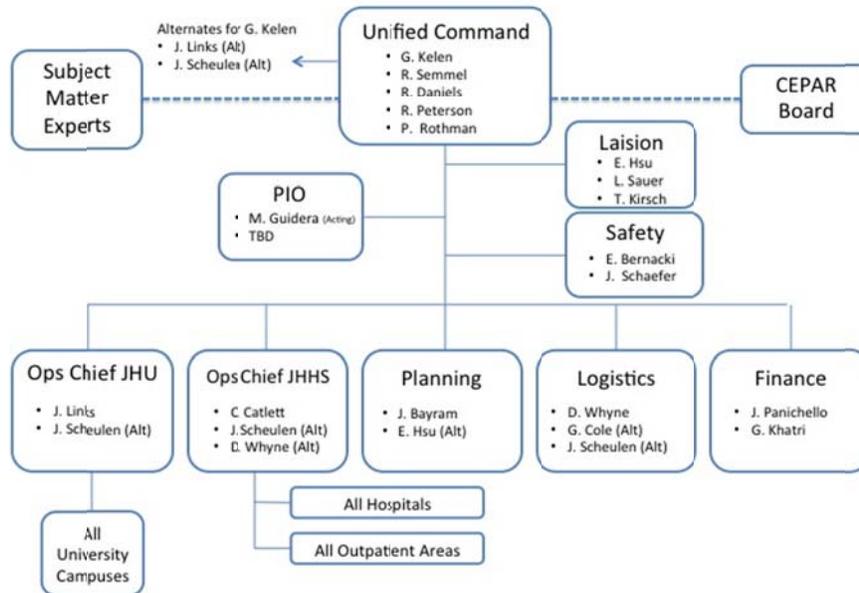
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<sup>2</sup> See CEPAR Unified Command Document

<sup>3</sup> In addition, since affiliate-level plans depend on the geography-severity matrix, the current cell (See Table 2) will also be identified.

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**Figure 2. Unified Command<sup>4</sup>**  
**JHI/CEPAR Unified Command**



**C. Response Actions Based on JHI Pandemic Stages**

It is important to distinguish between CEPAR as an Office and CEPAR Unified Command. CEPAR as an Office is responsible for managing the moment-to-moment response to an Institutions-wide incident, for those issues requiring Institutions-level management. CEPAR Unified Command is responsible for top-level decision-making during the incident. Of note, stages may not occur in an orderly fashion and with a biologic agent like influenza we could skip from the pre alert stage to the transitional stage. The following response actions reflect this distinction.

**Pre-Alert Stage**

- Review policy and determine changes
- Enhance surveillance activities
- Review levels of critical equipment
- For any large gatherings consider what additional precautions need to be in place
- Develop travel related guidance for faculty, employees and students
- Facilitate standard assessment procedures for ill faculty, employees and students
- Identify key content experts, command personnel and their availability
- Plan communications
- Work with the CDC and MD DHMH to coordinate activities

**Hopkins affiliates**

- Assure that pandemic influenza plan is current and valid.

<sup>4</sup> See CEPAR Unified Command Document for details

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- Identify the key personnel
- Plan communications

### Alert Stage

#### **Institutional Goal**

Monitor progression of the pandemic to ensure the earliest warning for Institutions-wide executive leadership and critical personnel, and each Johns Hopkins affiliate, of impending escalation of pandemic response plans.

#### **Potential CEPAR Office Actions**

1. Announcement that JHI is in the Alert Stage of the Pandemic Plan.
2. Monitor surveillance systems to track outbreaks in the world, North America, and the region.
3. Estimate the impact of the virus on JHI employees, students and operations based on its epidemiological characteristics (transmissibility and morbidity/mortality rate).
4. Inventory critical medical supplies, medications, and PPE, and recommend and endorse augmentation as appropriate.
5. Direct the design and initiate a public awareness campaign as appropriate.
6. Hold JHI affiliate planning meetings and conference calls as needed.
7. Post current pandemic information on the CEPAR website.
8. Keep Institutional leadership informed (situational awareness).
9. Develop guidance on Travel Restrictions for Johns Hopkins faculty, staff, and students
10. Develop guidance on circumstances under which broad **Institutional Passive Screening** for influenza (employees, students, and patients) is appropriate
11. Begin an active education campaign about personal preparedness.

#### **Key CEPAR Unified Command Actions/Decisions<sup>5</sup>**

1. Review triggers for activating the next stage (Transitional Stage) of response.
2. Review and consider approval of CEPAR Statement on Travel (See item 9 above).
3. Review CEPAR office prepared guidance on Institutional Passive Screening (See item 10 above).
4. Review EIP recommendations for infection control and healthcare worker safety.
5. Activate website for key institution wide policies, educational material, FAQs and other communication needs.

### Transitional Stage

#### **Institutional Goal**

Implement actions to mitigate the impact of the pandemic or virus on Johns Hopkins employees, faculty, students, patients and operations.

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<sup>5</sup> See CEPAR Unified Command Document for details related to JHI decision making. Generally speaking CEPAR will be involved in issues germane to more than one entity.

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## Potential CEPAR Office Actions

1. Announce elevation of JHI Pandemic Stage to Transitional.
2. Consider activation of the JHI ICS with Unified Command.
3. Consider activation of the CEPAR Emergency Operations Center (EOC).
4. Provide situation reports (sit-reps), to Johns Hopkins executives, incident commanders, and other critical personnel.
5. Update and maintain the CEPAR website with current pandemic information.
6. Initiate routine information sharing and dialogue between the Johns Hopkins affiliates concerning the response.
7. Implement an information/education campaign to reinforce infection control practices and procedures for employees, faculty, and students to prevent the spread of influenza.
8. Direct the implementation of an internal and external public information campaign.
9. Support efforts at heightened surveillance for influenza.
10. Mandate appropriate infection control and healthcare worker protection (per EIP) throughout JHI.
11. Communicate JHI guidance or policy on travel screening and/or restrictions to JHU, JHU/APL and JHHS/JHM as appropriate.<sup>6</sup>
12. Establish close contact with BCHD, DHMH, and other regional health care facilities and universities to develop a network of collaboration, cooperation, and information sharing.
13. Monitor national-level antiviral/vaccine use recommendations and modify Johns Hopkins' priority groups as needed.
14. Issue guidance on vaccine and antiviral distribution at JHI.
15. Coordinate affiliate resource sharing as appropriate.
16. Closely examine HR policies that apply to protection of staff (e.g., liberal leave, work from home, etc.) and make recommendations to JHU and JHHS/JHM as appropriate.
17. Guide affiliates to define or re-identify essential and non-essential employees (if appropriate).
18. Review and revise, with the input of subject-matter experts, the influenza "standard of care".
19. Heighten the monitoring of critical resource levels.
20. If requested, identify or re-examine triggers for dorm and/or school closures.
21. Develop guidance on limitations of visitor and vendor access to specific JHHS sites as appropriate.
22. Develop statement triggers to limit/cancel nonessential large meetings/conferences.
23. Develop strategy, distribution and prioritization of scarce resources when applicable across one or more JHI entities (e.g., H1N1 limited vaccine).
24. Advise JHU regarding social distancing strategies for consideration to mitigate spread.

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<sup>6</sup> If such a statement goes beyond a guideline/recommendation, it would require Unified Command approval which may have been attained during the Alert Stage (see Alert Stage Unified Command action #3)

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### **Affiliate Actions**

1. Institute medical surge plans
2. Participate in EIP calls for infection control planning
3. Participate in CEPA calls for overall planning
4. Report cases daily to centralized surveillance network

### **Key CEPAR Unified Command Actions/Decisions**

1. Decide if active employee, visitor, and student screening guidance should be implemented.
2. Decide whether to adopt CEPAR guidance on limit visitor and vendor access to specific JHHS sites (See item 22 above).
3. Decide whether to adopt CEPAR office prepared policy on restrictions of large gatherings (See 23 above)
4. Decide whether to adopt CEPAR strategy for distribution of scarce resources (See item 24 above).
5. Facilitate intra-institutional patient transfer to support surge challenges.

## Critical Stage

### **Institutional Goal**

Protect JHI employees, faculty, students, and patients; sustain operations; and minimize the impact to JHI critical infrastructure.

### **Potential CEPAR Office Actions**

1. Open lines of communications with state and local health departments regarding government actions, and the potential impact of those actions on JHI.
2. Consult with local and state health departments about access to the national stockpile when needed.
3. Recommend implementation of heightened security at all affiliates to maintain civil order if needed.
4. Assist with individual entity implementation of the mass fatality plan as needed or requested.
5. Advise restriction and/or closure of hospitals to visitors and vendors.
6. Recommend specific surge capacity strategies to JHHS/JHM entities.
7. Advise whether JHU school and dorm closures triggers have been met.
8. Recommend closure of all JHI non-essential services.
9. Manage allocation of scarce resources affecting more than one affiliate.<sup>7</sup>
10. Activate HR policy for work from home
11. Suspend resident/fellow work hour restrictions
12. Shut down non essential services

### **Affiliate Actions**

1. Trigger University closing discussions/decisions.
2. Implement entrance screening to healthcare facilities
3. Cohort patients in healthcare facilities, waiting room

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<sup>7</sup> May require CEPAR UC approval

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4. Implement strict visitation policies in healthcare facilities
5. Open family information centers
6. Activate fatality management

### **Key CEPAR Unified Command Actions/Decisions**

1. Decide whether to shut down nonessential services at all affiliates, including the University.
2. Decide whether to suspend face-to-face classes and close the student dorms.
3. Decide whether to cancel face-to-face meetings, and all large gatherings

## **D. Communications**

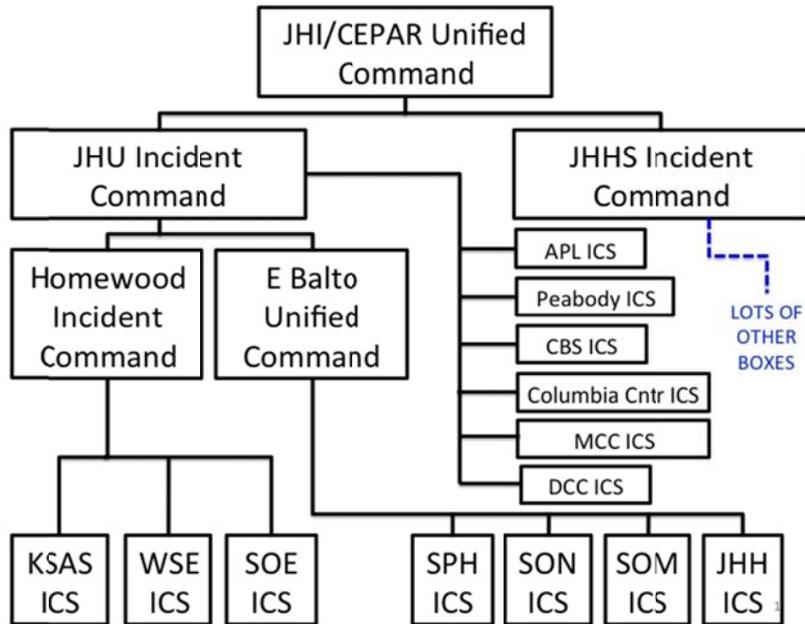
Appropriate and timely communication underpins the success of all aspects of the Johns Hopkins Pandemic Influenza Plan. Once the Plan is activated and the ICS has been implemented, JHI will utilize a Joint Information System (JIS) and Joint Information Center (JIC) to implement its communication mission.

### **Joint Information System**

JIS integrates incident information and public affairs into a cohesive organization designed to provide consistent, coordinated, accurate, accessible, timely, and complete information during crisis or incident operations. The mission of the JIS is to provide a structure and system for developing and delivering coordinated JHI messages; developing, recommending, and executing public information plans and strategies; advising the IC concerning public affairs issues that could affect the response effort; and controlling rumors and inaccurate information that could undermine public confidence in the emergency response effort.

CEPAR will coordinate the Institutional JIS. (Figure 3). The JHI Unified Command Public Information Officer (PIO) is currently the JHM Director, Media Relations and Public Affairs. The JIS is responsible for providing the Incident Commander with information related to what the local media is reporting, warnings and emergency public information needs, and staff/student information needs. All communications received from outside agencies should be forwarded to CEPAR.

**Figure 3. Joint Information System**



\* Public Information Officer

### The Joint Information Center

The JIC is a central location that facilitates operation of the JIS. The JIC is a location where personnel with public information responsibilities perform critical emergency information functions, crisis communications, and public affairs functions. A single JIC location is preferable, but the system is flexible and adaptable enough to accommodate virtual or multiple JIC locations as required. The JHI JIC is typically located at the Marketing and Communications Office on Bond Street.

### Communication Planning Guidelines

The following guidelines are used in development and dissemination of all CEPAR pandemic related communications, both internally and externally:

- Messages will convey precise, timely, and consistent information in a usable format.
- Communications will be structured to maximize responsiveness to the needs of institutional members and external organizations/agencies.
- Information is communicated routinely at intervals that are useful to the target audience.
- Where possible, the CEPAR website will be leveraged to centralize and maintain communications.
- Communications will be designed to set and manage expectations, correct misperceptions, and reduce rumors.

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## Special Considerations

To maintain transparency and the collaborative culture of this organization, communication regarding the following topics will include a description of the justification and rationale used whenever possible:

- Distribution of scarce resources.
- Reallocation of personnel.
- New policies or restrictions (outside the scope of existing pandemic plans).

## Methods and Communication Tools

### Alert Stage

During the Alert Stage the following methods and tools are utilized by CEPAR to communicate across Johns Hopkins and externally:

- The organization's current preparedness posture is described at <http://www.hopkins-cepar.org/index.html>.
- Recommend and encourage member institutions to conduct advertising campaigns to reinforce personal practices such as influenza immunizations, cough/sneeze etiquette, hand hygiene, staying home when ill, and basic infection prevention and control practices.
- Promote relevant awareness articles in Dome, Gazette, and Hopkins on Alert, etc.
- Maintain regular conference calls and meetings with relevant external organizations such as Maryland Institute for Emergency Medical Services Systems, DHMH, and BCHD.

### Transitional Stage

During the Transitional Stage the following methods and tools are utilized by CEPAR to communicate across Johns Hopkins and externally:

- Conduct an information campaign (Dome, Gazette, plasma screens) with the following elements:
  - Pandemic preparedness.
  - Signs and symptoms of influenza, modes of transmission, personal protection, and infection control measures.
  - Travel advice and restrictions.
  - What JHI is doing to prepare and respond.
- Recommend and encourage member institutions to conduct information campaigns targeting patients and patient families with the following elements:
  - Changes in Johns Hopkins operations.
  - Treatment advice leaflets consistent with current information and standards of care.
  - Consistent screening signage at entrances.
- Recommend and encourage JHU schools to conduct information campaigns targeting students and student families with the following elements:
  - University plans, guidelines or actions to date regarding:
    - University operations.
    - Student housing.
    - Class schedules.
    - Food service.

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- Student safety.
- Travel advice.
- International students in the U.S. and U.S. students abroad.
- Students who desire to return home.

### Critical Stage

During the Critical Stage the following methods and tools are utilized by CEPAR to communicate across Johns Hopkins and externally:

- Direct affiliates to reinforce or provide information as follows:
  - Staff and faculty:
    - Changing clinical protocols for patient care.
    - Changing HR policies.
    - Operational decisions and new directives.
    - Recognition of staff commitment.
    - Travel restrictions.
  - Students and student families:
    - University plans, guidelines or actions regarding the same items listed above.
  - Patients and families:
    - Changes to clinical protocols patients/families should know about.
    - Hospital policy and situation updates.
    - Consistent screening signage at entrances.
    - Self-care, where to go if not admitted to a hospital, community assessment centers, alternate care facilities, and what to do if symptoms worsen.
- Utilize the CEPAR website to provide:
  - A question and answer forum to address employee and student concerns.
  - A daily posting of current status across the globe, U.S., state and region.
  - A daily posting of current status across the JHI.
  - Travel restrictions.
- Conduct routine (minimum weekly) conference calls with executives and affiliate incident commanders.
- Conduct routine (minimum weekly) conference calls with appropriate external agencies through the JHI ICS Liaison Officer.
- Participate in external web and virtual EOCs as required.

## **E. Pandemic Control Measures**

In order to mitigate the potential impact of an influenza pandemic, Johns Hopkins control interventions include two strategies:

- Non-pharmaceutical approach that includes hand and respiratory hygiene, travel restrictions, and social distancing, and PPE.
- Pharmaceutical approaches that include the use of influenza antivirals and vaccines.

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## Hand and Respiratory Hygiene

Depending on the nature of the pandemic, at the appropriate “stage” CEPAR will direct affiliates to implement common sense approaches to reducing the risk of employees, faculty, students and patients from becoming ill such as:

- Providing alcohol-based hand sanitizer and tissues in public places.
- Considering other resources such as no-touch trash cans and disposable wipes for cleaning personal spaces.
- Initiating information campaigns about hand and respiratory hygiene:
  - Covering nose and mouth with a tissue when coughing or sneezing, or using the crook of the elbow. Tissues should be thrown in trash after using.
  - Frequent hand washing (may use alcohol-based hand sanitizers), especially after sneezing or coughing.
  - Avoid touching eyes/nose.
  - Staying at home if sick.
- Posting signs in public places advocating the above.

## Travel Restrictions

Travel restrictions may be required to prevent the spread of disease from one location to another, including states and countries. Prior to traveling, JHI employees, faculty and students should visit the CDC website (<http://www.cdc.gov/travel>) to educate themselves about CDC Travel Health Warning notices, CDC Travel Health Precaution notices, and pandemic specific notices.

JHI-directed travel restrictions to affected locations will generally follow CDC and U.S. State Department restrictions. Travel guidance applies to faculty, staff and students. Travel restrictions regarding access to JHI affiliates may be imposed on third parties such as vendors and visitors. A link to travel restrictions will be provided on the CEPAR website.

- Students, faculty, and staff, must inform the University or JHHS/JHM ahead of time when traveling to or from a location currently under a CDC or other CEPAR endorsed traveler advisory. Each school or affiliate will create and maintain a central tracking database to monitor these travelers.
- If the WHO is in Phase 6 and the U.S. response stage is at 3, 4, or 5, CEPAR, the University, and the JHHS may impose a ban of all official business travel to outbreak areas. The social responsibilities and contractual obligations of the University and the JHHS will be taken into account in making these decisions.
- Official travel to an outbreak region will need approval from the Dean or director of the respective JHU School or entity, president of a JHHS/JHM entity, or their designees.
- The University feels a heightened level of responsibility to its students. Individual non-school sponsored travel choices are at the discretion of each student. However, it is the University’s position that students should not travel to designated affected areas. Depending on the nature of the pandemic, students returning from affected areas may be restricted in campus activities upon return.
- Faculty and Employees of JHI entities will also be discouraged from visiting affected areas for personal reasons, depending on the nature of the pandemic, may be restricted for a period of time from engaging in on-site work related activities upon their return.

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- Employees and students returning from outbreak areas where there is increased and sustained pandemic influenza transmission in the general population will report to occupational or student health for active screening before returning to work or class.

## **Social Distancing**

Social distancing involves increasing the physical space between people and reducing contact in an effort to decrease the spread of disease. Strategies and directives to be considered by CEPAR and affiliates include:

- Encouraging staff and students to avoid close contact (within 6 feet) of other persons.
- Expanding web-based and conference call options for meetings.
- Considering cancellation of mass gatherings, such as social functions, concerts, and sporting events.
- For students, expanding distance-learning methods.
- Communicating the availability of telephone or on-line medical screening or other student and employee health resources (e.g., on-site nurse or employee wellness programs) to check for flu-like symptoms before employees and students enter the building.
- Limiting access to buildings for the general public.
- Wearing a surgical mask for employees and students who have high-frequency, close contact with the general public that cannot be eliminated.
- Reducing or eliminating unnecessary social interactions such as not allowing visitors on the University campuses or in the dorms.
- Communicating human resource policies that protect employees from exposure, such as liberal leave, work from home, and telecommuting.
- Considering closure of non-essential services.
- Considering school closures.

## **Personal Protective Equipment**

Personal Protective Equipment (PPE) is designed to protect employees and students from serious workplace injuries or illnesses resulting from contact with workplace hazards. In the setting of pandemic influenza, PPE refers to simple measures used by the public (e.g. surgical masks) to protective measures used by health care workers, such as gowns, gloves, and respirators.

The risk of exposure to influenza in JHI employees and students may vary from very high to low. The level of risk depends in part on whether or not tasks require close proximity to people potentially infected with the pandemic influenza virus, or whether they require the person to have either repeated or extended contact with known or suspected sources of pandemic influenza virus. Table 4 lists the risk of exposure to different employee groups as defined by the Occupational Safety and Health Administration (OSHA).

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**Table 4. OSHA: Exposure to Influenza Risk Groups**

Risk	Exposure
Very High Exposure Risk	Health Care employees (doctors, nurses, dentists) performing aerosol-generating procedures on known or suspected pandemic patients. Health Care or laboratory personnel collecting or handling specimens from known or suspected pandemic patients.
High Exposure Risk	Health Care delivery and support staff exposed to known or suspected pandemic patients. Medical transport of known or suspected pandemic patients in a closed vehicle. Performing autopsies on known or suspected pandemic patients.
Medium Exposure Risk	Jobs that require frequent, close contact (within 6 feet) exposure to known or suspected sources of pandemic influenza such as co-workers, the general public and outpatients.
Low Exposure Risk	Jobs that do not require contact with people known to be infected with pandemic virus, nor frequent close contact (within 6 feet) with the public.

Source: OSHA, May, 2009

The vast majority of JHHS/JHM employees will fall into the Very High or High exposure risk groups. JHHS affiliates have developed protocols for appropriate use of PPE for health care workers that include the use of surgical masks, face shields, surgical gowns, gloves, N95 masks, and powered air-purifying respirators (PAPRs).

The vast majority of non-clinical University employees and students will fall into the medium and low risk exposure groups. In general, employees and students who have high-frequency, close contact with the general public that cannot be eliminated may wear a surgical mask if directed. During a pandemic, recommendations for PPE use may change depending on updated risk assessments for particular employees/students and information on PPE effectiveness in preventing the spread of influenza. CEPAR will post the most recent protocols on its website.

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## Antivirals

Antivirals will likely be the only virus-specific intervention during the initial pandemic response given that development of a vaccine for a novel strain of influenza takes time (estimated 6 to 9 months). Current supplies of antivirals within and outside the U.S. are limited.

Depending on the nature of the pandemic's causative agent, the JHI Unified Command (with SME input) will set standards for the Institutions regarding prophylaxis, post-exposure prophylaxis, and use of antivirals for treatment. CEPAR will post the current policies and recommendations on its website.

## Vaccinations

Once a pandemic strain is identified, the resulting vaccine will likely be the best way to help control the outbreak and provide immunization.

In the setting of *adequate* vaccine quantities, the immunization strategy will focus on the JHI family as a whole. It will follow the operational policies of the current seasonal influenza vaccination campaign.

CEPAR is developing a strategy for the ethical distribution of flu vaccine in the setting of *inadequate* vaccine quantities. The strategy will be based on epidemiologic data on the virus, definition of risk groups, and severity of illness of the disease. In order to effectively and efficiently distribute potentially scarce vaccine, Johns Hopkins affiliates will classify their employees and students into "priority" groups. These priority groups will be taken into consideration during creation of the vaccination strategy and the order of access to vaccine via a JHI program.

## F. Surveillance

Surveillance is defined as the "ongoing, systematic collection, analysis, interpretation, and dissemination of data about a health-related event." Once the arrival of a pandemic is recognized in the community, CEPAR will conduct surveillance activities to monitor the extent of the disease at Johns Hopkins including possible, probable, and confirmed cases. CEPAR will also monitor exposed employees and student absenteeism.

## G. Ethical Considerations

In the event of an influenza pandemic, many ethical issues will arise in terms of health risks, resource allocation, and management decisions. Planning decisions may be controversial, such as the rationing of antivirals, resource allocation (including hospital beds, ventilators and vaccinations), visitor restrictions, occupational risks, responsibilities of health care workers including duty to provide care, altered standard of care decisions, responsibilities to students, and quarantine and isolation issues. Decision making will be guided by an ethical framework articulated in the relevant CEPAR white paper ("Ethical Framework to Guide Decisions in a Pandemic").

## **H. Human Resource Management**

At present, the JHHS/JHM and JHU Human Resource policies are being evaluated and will be revised if needed to ensure optimal protection of staff and provide for staff degradation due to illness. For the majority of situations, no revisions to Human Resource policies are necessary. When no pandemic specific policies exist, the current policies and procedures apply. The finished policies will take into account the potentially competing needs of individual employees, faculty, students, functional groups/units, Johns Hopkins Institutions as an economic entity/business, as well as other stakeholders, including patients, significant others and families.

The Federal government has posted guidance on human resource policies and pandemic planning workplace questions that affiliates may use as a reference:

[http://www.pandemicflu.gov/faq/workplace\\_questions/human\\_resource\\_policies/index.html](http://www.pandemicflu.gov/faq/workplace_questions/human_resource_policies/index.html)

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### III. Pandemic Recovery Responsibilities

The goal of the JHI recovery plan is to enable JH to emerge from the influenza period of disruption in as healthy a state as it was prior to the event.

#### A. CEPAR Recovery Activities

- Ensure JHI recovery is coordinated, comprehensive, and has a clear strategy.
- Develop programs to assist employees, faculty and students to manage and minimize the impact of the pandemic on their personal lives.
- De-activate the pandemic response activities.
- Assist affiliates with recovery if needed.
- Conduct an affiliate debriefing to evaluate the overall decision-making, communication, and response process.
- Write a Johns Hopkins Institutions’ After Action Report (AAR).
- From lessons learned, make appropriate improvements to the JHI Pandemic Influenza Preparedness, Response and Recovery Plan.
- Assess the cost of responding to the pandemic including the recovery phase. Determine if reimbursement money is available from federal sources.
- Assist the affiliates with workforce reconstitution.
- Continue enhanced risk communications and information sharing.
- Assist JH Affiliates to prepare for the next wave of the pandemic.

#### B. Affiliate Recovery Activities

- De-escalate pandemic response activities and close the EOC if still functioning.
- Perform an internal evaluation of pandemic response to identify effective strategies that will serve as “best practices” for future implementation.
- Identify weaknesses in response and make appropriate changes to affiliate pandemic plan.
- Demobilize pandemic influenza services related to health care and the University.
- Demobilize/re-evaluate security services and visitor access.
- Project when the facility will be able to resume pre-pandemic services.
- Review/revise clinical patient management protocols.
- Ensure communication channels remain open to all employees, faculty, and students and provide them with continuous updates concerning preparations for another pandemic wave of infections.
- Review/revise infection prevention and control guidelines.
- Reinstate canceled services.
- Formally recognize the efforts of all staff and volunteers.
- Evaluate immediate and long term emotional needs of staff and students and continue psychological support services as needed.
- Assess financial cost of pandemic response to affiliates.
- Where possible implement actions to assist employees, faculty and students to access available recovery programs (i.e., single parent families, grief counseling).
- Prepare for another pandemic wave.

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## Appendices

### Johns Hopkins Affiliate Checklists

Planning for a pandemic influenza is critical to ensuring a sustainable response. CEPAR has developed the following checklists to be used by the Johns Hopkins Affiliates for evaluating their plans and ensuring the plans are complete and align with the Johns Hopkins Institutions’ Plan. Each JH Affiliate should use the Common Checklist plus the specialty checklist that applies.

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## Appendix A

### Johns Hopkins Affiliate Common Checklist

<b>The Pandemic Response Plan includes the following:</b>	<b>Present in Plan</b>	<b>Not in Plan</b>
<b>Plan Administration</b>		
1. Identifies the individual or group (Incident Commander and/or Incident Management Team) responsible for all pandemic activities once the plan is activated.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes the triggers for activating the plan and the criteria for escalation of the plan to the next stage.	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes how the affiliate response plan and stages align with the JHI Pandemic Plan and Stages.	<input type="checkbox"/>	<input type="checkbox"/>
4. Describes the actions of key personnel or departments responsible for executing the plan.	<input type="checkbox"/>	<input type="checkbox"/>
5. Defines a distinct set of actions for each pandemic response stage.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Communication and Education</b>		
1. Defines the role of the affiliate PIO and explains how that person works within the CEPAR JIS.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes an education plan to reinforce basic infection prevention and control practices (i.e., hand hygiene, cough etiquette, social distancing, not coming to work when ill, and the importance of seasonal influenza immunizations).	<input type="checkbox"/>	<input type="checkbox"/>
3. Defines a strategy for regularly updating CEPAR on the Affiliate general pandemic response.	<input type="checkbox"/>	<input type="checkbox"/>
4. Describes how employees will be cross trained, if needed, to work in other areas.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Pandemic Control Measures</b>		
1. Identifies the strategy to inform employees and students about travel restrictions.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes the system for tracking employee travel to or from countries under a traveler advisory.	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes methods for distancing employees and students from each other and the general public.	<input type="checkbox"/>	<input type="checkbox"/>
4. Describes the systems for providing employees, students and visitors easy access to infection control supplies (i.e., soap, hand sanitizers, PPE, gloves, tissues, office cleaning supplies and implementing social distancing strategies).	<input type="checkbox"/>	<input type="checkbox"/>
<b>Resource Management</b>		
1. Describes a plan to address pandemic specific supply shortages (i.e., alternative vendor agreements).	<input type="checkbox"/>	<input type="checkbox"/>

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<b>The Pandemic Response Plan includes the following:</b>	<b>Present in Plan</b>	<b>Not in Plan</b>
2. Stockpile pandemic supplies. Stockpiles should generally last for the duration of a pandemic wave (6 to 8 weeks).	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes the plan for securing (against theft) all critical supplies and equipment, including, but not limited to, masks and other PPE.	<input type="checkbox"/>	<input type="checkbox"/>
4. Describes a plan for securing buildings and controlling access to buildings.	<input type="checkbox"/>	<input type="checkbox"/>
5. Describes how nonessential services/operations will be downsized or scaled back if needed.	<input type="checkbox"/>	<input type="checkbox"/>
6. Describes a plan for maintaining critical services if staff degradation occurs.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Workforce</b>		
1. Describes the plan to assist employees in managing additional stressors related to the pandemic.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes a plan for screening employees and students prior to reporting to work/school (passive and active screening).	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes a system for managing employees/students who become ill at work/school.	<input type="checkbox"/>	<input type="checkbox"/>
4. Describes a plan for rapidly vaccinating or distributing antivirals to employees and students.	<input type="checkbox"/>	<input type="checkbox"/>
5. Describes a plan to protect high risk employees and students from the complications of pandemic influenza (i.e., pregnancy or immunocompromised).	<input type="checkbox"/>	<input type="checkbox"/>
6. Defines the strategies for supporting employees' needs for rest and recuperation.	<input type="checkbox"/>	<input type="checkbox"/>
7. Defines the strategy for accommodating and supporting staff that have child and elder care responsibilities.	<input type="checkbox"/>	<input type="checkbox"/>
8. Describes the plan to ensure availability of psychosocial support services for employees and students.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Recovery</b>		
1. Describes the plan for demobilizing the pandemic response.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes the plan for assessing the financial impact of the pandemic response.	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes the plan for supporting employees and students including psychological support and recognition.	<input type="checkbox"/>	<input type="checkbox"/>
4. Describes the plan for managing a second pandemic wave.	<input type="checkbox"/>	<input type="checkbox"/>

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## Appendix B Johns Hopkins Hospitals Planning Checklist

The Pandemic Response Plan includes the following:	Present in Plan	Not in Plan
<b>Communications and Education</b>		
1. Describes the plan for informing visitors that the facility has pandemic influenza activity.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes a plan for training employees to screen patients for pandemic influenza and influenza risk factors.	<input type="checkbox"/>	<input type="checkbox"/>
3. Defines a system to educate patients and families about changes in hospital policy and operations due to a pandemic.	<input type="checkbox"/>	<input type="checkbox"/>
4. Describes the plan for rapidly training non-hospital staff brought in to provide patient care when the hospital reaches surge capacity.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Patient Care</b>		
1. Describes how outpatients with possible pandemic influenza will be physically separated from other patients seeking outpatient care.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes the plan to rapidly identify and isolate all potential pandemic influenza patients (inpatient and outpatient).	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes a system for tracking and reporting pandemic influenza and influenza-like illness admissions and discharges.	<input type="checkbox"/>	<input type="checkbox"/>
4. Defines the plan to rapidly increase inpatient, outpatient and critical care bed capacity (surge capacity) including space allocation, supplies and personnel. This plan should also address the care of pandemic influenza mental health, labor and delivery, pediatric and other specialty patients.	<input type="checkbox"/>	<input type="checkbox"/>
5. Describes how decisions related to canceling elective admissions and surgeries will be made.	<input type="checkbox"/>	<input type="checkbox"/>
6. Defines the decision-making process and threshold to cohort pandemic patients.	<input type="checkbox"/>	<input type="checkbox"/>
7. Describes the plan to cohort nonpandemic vulnerable populations (pediatrics, pregnant women, immunocompromised children and adults, patients).	<input type="checkbox"/>	<input type="checkbox"/>
8. Describes a strategy for handling increased numbers of deceased persons.	<input type="checkbox"/>	<input type="checkbox"/>

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<b>The Pandemic Response Plan includes the following:</b>	<b>Present in Plan</b>	<b>Not in plan</b>
<b>Resource Management</b>		
1. Identifies and stockpiles sufficient quantities of essential patient care consumable supplies (PPE, intravenous supplies, morgue packs) and durable medical equipment (intravenous pumps, ventilators and pharmaceuticals).	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes the primary plan and the contingency plan to address medical supply shortages.	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes the plan to receive and secure the Strategic National Stockpile.	<input type="checkbox"/>	<input type="checkbox"/>
4. Describes the plan for maintaining critical hospital services (laboratory testing, radiology, laundry, food service, and housekeeping) if staff degradation occurs.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Pandemic Control Measures</b>		
1. Describes the method for tracking and monitoring nosocomial transmission of pandemic influenza.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes the system for phone triage of outpatients for the purposes of prioritizing patients who require medical evaluation.	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes the plan for estimating the size of relevant priority groups for vaccine or antivirals.	<input type="checkbox"/>	<input type="checkbox"/>
4. Describes the plan for rapidly vaccinating or distributing antivirals to personnel.	<input type="checkbox"/>	<input type="checkbox"/>
5. Identifies the process for the secure storage of vaccine and antivirals.	<input type="checkbox"/>	<input type="checkbox"/>
6. Defines the process for determining classification of patients' visitors as "essential" or "non-essential".	<input type="checkbox"/>	<input type="checkbox"/>

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## Appendix C

### Johns Hopkins Home Care Planning Checklist

The Pandemic Response Plan includes the following:	Present in Plan	Not in Plan
<b>Plan Administration</b>		
1. Describes the scope of pandemic influenza services that will be provided by JHHC and those that will be denied or referred to other providers.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes the role and responsibility of JHHC regarding the distribution of infection control supplies (i.e., masks, hand hygiene materials), medications, and other necessities in the home to patients and their families.	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes the decision-making process for determining which patients can have altered service schedules based on their health conditions, needs and available resources.	<input type="checkbox"/>	<input type="checkbox"/>
4. Describes the plan for addressing security concerns associated with JHHC providers traveling with highly desirable medications and medical supplies including PPE.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Communications and Education</b>		
1. Defines a system to educate patients and families about changes in JHHC policy and operations.	<input type="checkbox"/>	<input type="checkbox"/>
2. Defines and develops the JHHC pandemic education material that is needed. Material must be language and reading-level appropriate to the patient population.	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes the plan for rapidly training non-JHHC staff brought in to provide patient care when JHHC services are expanded.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Patient Care</b>		
1. Describes the plan to accommodate an increased number of patients who need JHHC services.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes the Infection Control Plan for the care of pandemic influenza patients in the home.	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes the plan to screen existing JHHC patients for pandemic influenza.	<input type="checkbox"/>	<input type="checkbox"/>
4. Describes the system for tracking JHHC pandemic cases.	<input type="checkbox"/>	<input type="checkbox"/>
5. Describes the plan for addressing the needs of vulnerable populations (pediatrics, pregnant women, immunocompromised children and adults, patients with disabilities and psychiatric patients) who need JHHC.	<input type="checkbox"/>	<input type="checkbox"/>
6. Describes the process for determining the patient care priorities in the event of a staffing shortage.	<input type="checkbox"/>	<input type="checkbox"/>
7. Describes the plan for dealing with mass fatalities, including removal of the deceased from the home.	<input type="checkbox"/>	<input type="checkbox"/>

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<b>The Pandemic Response Plan includes the following:</b>	<b>Present in Plan</b>	<b>Not in plan</b>
<b>Resource Management</b>		
1. Identifies and stockpiles sufficient quantities of essential patient care consumable supplies (PPE, intravenous supplies, morgue packs), durable medical equipment (intravenous pumps, ventilators) and medications.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes the primary plan and the contingency plan to address supply shortages (i.e., alternative vendor agreements).	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes the potential role and available resources for JHHC to distribute vaccine and antivirals in the community.	<input type="checkbox"/>	<input type="checkbox"/>
4. Describes the plan for maintaining critical JHHC services (infusion, dialysis, etc.) if staff degradation occurs.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Pandemic Control Measures (pharmaceutical &amp; non-pharmaceutical)</b>		
1. Describes the system for phone triage of patients for the purposes of prioritizing patients who require care.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes the plan for rapidly vaccinating or distributing antivirals to employees.	<input type="checkbox"/>	<input type="checkbox"/>
3. Identifies the process for the secure storage of vaccine and antivirals.	<input type="checkbox"/>	<input type="checkbox"/>

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## Appendix D

### Johns Hopkins Outpatient Care Sites Planning Checklist

<b>The Pandemic Response Plan includes the following:</b>	<b>Present in Plan</b>	<b>Not in Plan</b>
<b>Communications and Education</b>		
1. Defines a system to educate patients and families about changes in outpatient care operations.	<input type="checkbox"/>	<input type="checkbox"/>
2. Defines and develops the outpatient care pandemic education material. Material must be language and reading level appropriate to the patient population.	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes the plan for rapidly training non-outpatient staff brought in to provide patient care when the outpatient surge capacity plans are activated.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Patient Care</b>		
1. Describes a system for phone triage of patients to limit office visits to those that are medically necessary.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes how outpatients with possible pandemic influenza will be physically separated from other patients seeking outpatient care (i.e., separate waiting rooms).	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes the plan to rapidly identify and isolate all potential pandemic influenza patients.	<input type="checkbox"/>	<input type="checkbox"/>
4. Describes a system for tracking and reporting pandemic influenza and influenza-like illness admissions and discharges.	<input type="checkbox"/>	<input type="checkbox"/>
5. Defines a plan to rapidly increase patient capacity/appointments to care for possible pandemic patients.	<input type="checkbox"/>	<input type="checkbox"/>
6. Describes how decisions related to canceling appointments will be made.	<input type="checkbox"/>	<input type="checkbox"/>
7. Describes the plan for addressing the needs of specific vulnerable populations (pediatrics, pregnant women, immunocompromised children and adults, patients with disabilities and psychiatric patients). This plan may include designating separate blocks of time for non-influenza and influenza-related patient care and temporarily canceling non-essential medical visits (i.e., annual physicals).	<input type="checkbox"/>	<input type="checkbox"/>
<b>Resource Management</b>		
1. Identifies and stockpiles sufficient quantities of essential patient care consumable supplies (PPE, intravenous supplies) and durable medical equipment and medications.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes the primary plan and the contingency plan to address medical supply shortages (i.e., alternative vendor agreements).	<input type="checkbox"/>	<input type="checkbox"/>

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<b>The Pandemic Response Plan includes the following:</b>	<b>Present in Plan</b>	<b>Not in plan</b>
<b>Pandemic Control Measures (pharmaceutical &amp; non-pharmaceutical)</b> 1. Describes the system for phone triage of patients with appointments in the outpatient areas for the purpose of prioritizing patients who require medical evaluation.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes the plan for rapidly vaccinating or distributing antivirals to staff.	<input type="checkbox"/>	<input type="checkbox"/>
3. Identifies the process for the secure storage of vaccine and antivirals.	<input type="checkbox"/>	<input type="checkbox"/>

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## Appendix E Johns Hopkins University Planning Checklist

<b>The Pandemic Response Plan includes the following:</b>	<b>Present in Plan</b>	<b>Not in Plan</b>
<b>Plan Administration</b>		
1. Describes the decision-making process for canceling classes, sporting events, and/or other public events.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes the decision-making process for the closure and re-opening of the entire school, a campus, and/or student housing.	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes the processing for quarantining and isolating exposed or ill students.	<input type="checkbox"/>	<input type="checkbox"/>
4. Describes the plans for students who depend on student housing and food services in the event of school or service closures.	<input type="checkbox"/>	<input type="checkbox"/>
5. Describes the contingency plans for maintaining research laboratories, particularly those using animals, and stockpiling non-perishable food and equipment that may be needed in the case of an influenza pandemic.	<input type="checkbox"/>	<input type="checkbox"/>
6. Describes the plan for continuity of operations for maintaining the essential operations of the University including payroll, security, maintenance, housekeeping, food services and student housing.	<input type="checkbox"/>	<input type="checkbox"/>
7. Describes possible alternate learning methods to assure continuity of instruction (e.g., web-based distance instruction, mailed lessons, and assignments) in the event of closure.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Communications and Education</b>		
1. Defines the plan for disseminating information to employees, students and student families concerning the University pandemic influenza plan. This should include the potential impact of a pandemic on student housing, school or campus closure, and the contingency plans for campus safety and food services.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Student Health</b>		
1. Describes the student health surge capacity plan.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes a system to track student pandemic influenza cases.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Resource Management</b>		
1. Describes a plan to identify and stockpile sufficient quantities of essential student health medical supplies, medications and PPE for student health staff.	<input type="checkbox"/>	<input type="checkbox"/>

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## Appendix F

### Johns Hopkins Applied Physics Laboratory Planning Checklist

The Pandemic Response Plan includes the following:	Present in Plan	Not in Plan
<b>Plan Administration</b>		
1. Describes the decision-making process for going to voluntary work-at-home and social distancing.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes the decision-making process for mandatory work-at-home and only mission critical work performed at the APL facility.	<input type="checkbox"/>	<input type="checkbox"/>
3. Describes decision-making process for closing and reopening the facility.	<input type="checkbox"/>	<input type="checkbox"/>
4. Describes the contingency plans for maintaining research laboratories and stockpiling non-perishable food and supplies that may be needed in the case of an influenza pandemic.	<input type="checkbox"/>	<input type="checkbox"/>
5. Describes the plan for continuity of operations for maintaining the essential operations of APL including payroll, security, maintenance, housekeeping, and mission critical work.	<input type="checkbox"/>	<input type="checkbox"/>
6. Describes possible scenarios to meet changing sponsor requirements during a pandemic influenza.	<input type="checkbox"/>	<input type="checkbox"/>
7. Describes how APL will restrict travel to affected geographic areas (both domestic and international sites) and assure the safe return for those already at those sites.	<input type="checkbox"/>	<input type="checkbox"/>
8. Monitor international, national, and state pandemic outbreaks and assess the implications on the APL Field Offices.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Policy Development</b>		
1. Establish policies for employee compensation and sick-leave absences unique to a pandemic, including policies on staying home when sick and return to work after illness.	<input type="checkbox"/>	<input type="checkbox"/>
2. Establish policies for preventing influenza spread at the worksite (e.g. promoting respiratory hygiene/cough etiquette, and prompt exclusion of people with influenza symptoms).	<input type="checkbox"/>	<input type="checkbox"/>
3. Develop flexible leave policies that allow workers to stay home to care for family members who are ill and to care for children if child care programs or schools close.	<input type="checkbox"/>	<input type="checkbox"/>
4. Develops a policy and a plan that addresses prioritization of personnel to be vaccinated.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Communications</b>		
1. Defines the plan for disseminating information to employees concerning the Laboratory’s pandemic influenza plan.	<input type="checkbox"/>	<input type="checkbox"/>

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<b>The Pandemic Response Plan includes the following:</b>	<b>Present in Plan</b>	<b>Not in Plan</b>
2. Defines how APL will continue to communicate with CEPAR and sponsors during a pandemic influenza.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Employee Health</b>		
1. Describes the plan for APL employees who become ill when at work.	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes a system to assess levels of absenteeism during a pandemic influenza.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Resource Management</b>		
1. Describes a plan to address pandemic specific supply shortages (i.e., alternative vendor agreements).	<input type="checkbox"/>	<input type="checkbox"/>
2. Describes a plan to stockpile strategic reserves of all essential supplies, materials and equipment.	<input type="checkbox"/>	<input type="checkbox"/>