Blueprint for Pandemic Flu Preparedness Planning for Colleges and Universities

Developed with support from
Arthur J. Gallagher Risk Management Services, Inc.

Gallagher
Higher Education Practice Group

This document has been excerpted and revised with permission by the World Health Organization from their document titled, "WHO checklist for influenza pandemic preparedness planning."

How Do I Proceed from Here?

1. Read the introductory paragraphs to each section
2. Assemble a core planning team
3. Use questions to assign/delegate planning activities
4. Assemble the plan
5. Validate effectiveness of the plan with “table top” tests
6. Follow-through with needed improvements identified in the tests

Preface

In late 2005, the World Health Organization and the Centers for Disease Control and Prevention (CDC) began in earnest to alert the world’s countries to the possibilities of a pandemic flu outbreak on a scale similar to that of the Spanish Flu of 1918. That pandemic took an estimated 50 million lives. The pandemic that is now predicted is estimated to take the lives of as many as 25% of the population in those countries that could be severely impacted. Such a loss will undoubtedly result in severe human suffering and extreme economic havoc.

Higher Education will be among the industries most severely impacted because of risks resulting from international travel by students, faculty, and staff; and with open and accessible campuses to the local community at-large.

According to the CDC, those most susceptible to death from a flu pandemic are those aged between 15 and 35 and the very old. Further, the CDC projects workplace absentee rates as high as 25% over a 4-9 month period.

The impact on college or university operations may include unprecedented demands on student health services, relocation of students in residence halls, the establishment of quarantine sites, debilitating sickness among staff and faculty causing severe reductions in the work force, essential services hampered and perhaps unavailable, and significant loss of tuition revenues from closure of the institution, and non-returning students.

In understanding this threat and the need to plan as soon as possible for managing the consequences of a pandemic flu outbreak, the Higher Education Practice at Arthur J. Gallagher Risk Management Services, Inc. held a “Think Tank” event on January 30 and 31, 2006. The purpose of this event was to develop a comprehensive document for colleges and universities to use in pre-planning a response to a pandemic flu outbreak.

Among those invited to participate were a blue ribbon team of experienced representatives from colleges and universities around the country who had already begun to draft planning documents for their institution’s response to a pandemic outbreak. Large, small, public, and private institutions were represented.

Leading experts on Pandemic Flu kicked-off the two-day planning session with presentations that laid the foundation of knowledge necessary for the participants to develop this blue print.

This effort would not have been possible without the commitment and participation of the following persons:

Special presentations on Pandemic Flu were provided by:

Dr. Anita L. Barkin, Director, Carnegie Mellon University Student Health Service

Dan Lee, Pandemic Influenza Preparation Coordinator, Illinois Department of Public Health

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As with any major task, the first step is to commit to getting started. It is our hope that this blueprint will help you do just that.

John McLaughlin
Managing Director
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Introduction to Pandemic Flu

Failure to have a pandemic response plan may in of itself create liability for the institution, particularly given the amount of warning and guidance offered by governmental officials and the encouragement to develop such a plan. Consider the following series of quotes:

"'U.S. companies must pitch in to help prepare for what scientists believe could be a devastating influenza pandemic,' Health and Human Services Secretary, Mike Leavitt, said 2/14/2006. Mr. Leavitt repeated the message he has been hammering home to states – they can expect little help from the federal government and need to get their emergency plans in order. 'Avian flu, when it occurs, will severely test the best-laid plans…and many companies are not making any plans at all.'"

"'We are overdue and ill-prepared. Local communities are going to have to take the lead,' Mr. Leavitt said. 'Those expecting the federal government to ride in and come to their rescue are going to be sorely disappointed.'"

"Mr. Leavitt said 'checklists for businesses and families are being prepared to reveal weaknesses and enhance planning but acknowledged it was difficult to get people to act before the actual crisis hits.'"

"'Let's acknowledge that anything we say before a pandemic occurs feels like an exaggeration, feels alarmist. But anything said afterward, it shows a lack of preparation,' Mr. Leavitt said."

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"Two thirds of some of the largest companies in America say they are not adequately prepared to deal with a flu pandemic. Former Health and Human Services Secretary, Tommy Thompson, told AP that corporate America reads about a possible flu pandemic, but can't 'completely digest it.' Thompson's new industry think tank, part of Deloitte and Touche, USA, sponsored the survey."
http://www.wavy.com/Global/story.asp?S=4192637&nav=23ii2Pmv

"'People have to understand this is not science fiction,' Dr. Osterholm says. '[Pandemics] are going to happen. This is why [a] group of infectious disease [experts] are trying to wake the world up, shake them and say, 'You've got to understand this.' Even if the bird flu isn't the one that does it, another one's going to. Like the people of New Orleans learned, this is not the time to panic and feel hopelessness. It's the time to be prepared.'"
From interview with Dr. Osterholm on the Oprah Winfrey Show, from "*Bird Flu: The Untold Story*"

Planning for a pandemic flu outbreak cannot begin without first understanding how it can get started, how quickly it will likely spread, and the potential magnitude of its consequences. The following illustrates a predictable scenario.

Pandemic Scenario

In a remote country in Asia, a case of human-to-human transmission of Avian Flu is confirmed. Over the next two months, Avian Flu outbreaks take place in countries around the world. One in every 20 people infected dies. The rate of infection is rapid and countries initiate travel restrictions and quarantine measures. There are reports that the virus has spread in-flight to passengers arriving from an affected country.

A few weeks later, the first local outbreaks are reported. Rates of absenteeism in schools and businesses begin to rise. The spread of the new virus continues to be the major news item in print and electronic media. Widespread panic begins because supplies of antiviral drugs are severely limited and a suitable vaccine is not yet available.

By the end of the third month, police departments, local utility companies, and mass transit authorities experience significant personnel shortages that result in severe disruption of routine services. Hospitals and outpatient clinics are critically short-staffed as doctors, nurses, and other health-care workers themselves become ill or are afraid to come to work. Fearing infection, persons with chronic medical conditions are afraid to leave home. Intensive care units at local hospitals are overwhelmed, and soon there are insufficient ventilators for the treatment of flu patients. Parents are distraught when their healthy young adult children die within days of first becoming ill. Major airports begin to close because of high absenteeism among airline pilots, flight attendants, and air traffic controllers.

Over the next 6-8 weeks, health and other essential community services deteriorate further as the pandemic sweeps across the world.

Is your college or university prepared for this?

Similar to the impact the African Aids pandemic has had on that continent, a worldwide flu pandemic is expected to affect 25% of the world's population resulting in extreme mortality rates and social and economic chaos. The level of preparedness will influence the final death toll.

Recently, the Congressional Budget Office predicted that a severe flu pandemic could infect 90 million people and kill more than 20 million in the U.S. alone. These staggering numbers can be compared to the average of 200,000 typical flu cases per year in the U.S. with about 35,000 related deaths.

The objective of this document on pandemic planning is to assist colleges and universities in preparing to manage an influenza pandemic. Planning can help to reduce transmission of the pandemic virus strain, decrease hospitalizations and deaths, maintain essential services, and reduce the economic and social impact of a pandemic.

A critical component of any disaster plan, particularly one such as a pandemic that reaches far beyond campus boundaries, requires cooperation and partnership with local authorities. A blueprint for an influenza pandemic preparedness plan can be used for broader contingency plans encompassing other disasters caused by bioterrorism and the emergence of any new, highly transmissible and/or severe communicable diseases. Pandemic scenarios should also be incorporated into other institutional emergency plans.

Pandemic strain influenza vaccine

With the current technologies, it is estimated that it will take at least five or six months before vaccines based on a new influenza strain can be produced on a large scale. But even then, most countries without production facilities will have limited access to vaccines during the first pandemic wave. Research into new vaccines may improve the global situation. Countries with production facilities are being encouraged to support and ensure by all means that rapid and large-scale production can take place during a pandemic.

1. Preparing for an Emergency

A. Getting Started

Pandemic preparedness is a complex process. To ensure that decision-makers are prepared to make effective choices to difficult issues before and during a pandemic, their commitment to a response plan is essential.

It is advisable to decide in advance who will serve as the team to plan a pandemic response. The first priority will be to decide on the major goals of your institution's plan; for example, life safety, protection of property, preservation of financial stability, and the protection of laboratory research and animal care; and to identify and appoint those who will serve in a "command and control" function.

Further, it is advisable that any existing emergency preparedness and business continuity plans are reviewed for relevance and as a means to save time before starting to develop a new plan that may already have many similarities.

Remember, a response plan should also include any satellite campuses and foreign operations, and it maybe desirable to address the impact and response to the institution's real estate holdings.

Questions for consideration:

- What resources are needed to get started in planning for a pandemic flu response?
- Who should be appointed to assist in the planning process?

Completed	In Progress	Not Started		
☐	☐	☐	1.	There is recognition of the potential human, social, economic, and legal impact of a pandemic at the highest levels of the institution's administration.
☐	☐	☐	2.	There is commitment from the highest level to prepare for such an event.
☐	☐	☐	3.	Funding and staff have been committed relative to the anticipated preparedness planning costs.
☐	☐	☐	4.	Individuals responsible for developing the pandemic preparedness plan have been designated.
☐	☐	☐	5.	A single individual has been designated by senior management to facilitate the process.

Completed	In Progress	Not Started	
☐	☐	☐	6. The team has decided on the major goals of the plan, such as life safety, protection of property, preservation of financial stability, the protection of laboratory research and animal care, etc.
☐	☐	☐	7. Any existing emergency preparedness and business continuity plans have been reviewed for relevance.
☐	☐	☐	8. The planning team has identified and appointed those who will serve in a “command and control” function.
☐	☐	☐	9. There is a clear strategy on how to involve the institution’s stakeholders in the planning process.
☐	☐	☐	10. A realistic timeline for completion of the plan has been established.
☐	☐	☐	11. There is agreement on the roles and contribution in the planning process from all participating individuals.
☐	☐	☐	12. There is agreement for: scheduled periodic meetings of the pandemic planning team in the absence of a pandemic; urgent, regular meetings of the committee in the early warning phase of a potential pandemic; and ongoing meetings when a pandemic is developing locally.
☐	☐	☐	13. Steps have been taken to coordinate with local public health officials.
☐	☐	☐	14. Steps have been taken to educate employees about the need for their own personal planning.
☐	☐	☐	15. Other issues and considerations have been identified.

B. Governance, Command, and Control

It is crucial to be able to make clear and timely decisions. For this reason, it is essential to know who is in charge of specific activities, how roles might change if a limited outbreak transitions into a major emergency and how **Command and Control** will be handled if key staff members are personally impacted. Such elements are often already defined in an existing business continuity plan and may be applicable to a pandemic response plan.

Completed	In Progress	Not Started		
☐	☐	☐	1.	A command and control structure is in place identifying the management and decision-making processes of all departments involved in response.
☐	☐	☐	2.	The key decision makers have been identified, including who will advise the administration.
☐	☐	☐	3.	The hierarchical structure for deciding when and how actions are to be taken and in what order for implementation have been defined and are known to key responders and departments.
☐	☐	☐	4.	Senior management and key department heads know who will be in charge and what they themselves are to do, including reporting lines and responsibilities.
☐	☐	☐	5.	Coordination with local public health officials and communication protocols has been established.
☐	☐	☐	6.	Responsibility has been assigned for monitoring recommendations from WHO, CDC, State and local public health departments.
☐	☐	☐	7.	Roles and responsibilities are defined and explained in the operational plans for each department.
☐	☐	☐	8.	Standard procedures have been developed for outbreak verification and alert.

Completed	In Progress	Not Started	
☐	☐	☐	9. Standard procedures have been developed for establishing an operational emergency team.
☐	☐	☐	10. Standard operational procedures have been developed for information flows (i.e. drafting of situation reports, monitoring mechanisms, briefings, back-up of information).
☐	☐	☐	11. Standard procedures have been developed for obtaining medical/scientific consensus during a crisis.
☐	☐	☐	12. Standard operational procedures have been developed for disseminating public information.
☐	☐	☐	13. Standard operational procedures have been developed for human resource management and each of the other essential services.
☐	☐	☐	14. Other issues and considerations have been identified.

C. Risk Assessment

In order to focus on the strategy, it is recommended that the expected impact of the pandemic be estimated, not only on students and health-care workers, but all staff, and faculty, and both internal and external essential services. To achieve this, a risk assessment needs to take into consideration a broad overview of exposures.

A risk assessment should also include any satellite campuses and foreign operations.

Completed	In Progress	Not Started	
☐	☐	☐	1. Assumptions from which to evaluate the impact of a pandemic event have been developed.
☐	☐	☐	2. Estimates have been determined of the effect of a pandemic on the institution, local health care delivery, hospitals, and morgues.

Completed	In Progress	Not Started		
☐	☐	☐	3.	An assessment as to what extent the campus can provide medical services has been completed.
☐	☐	☐	4.	It has been determined whether the institution has been identified by local health officials or will volunteer to serve as a county infirmary or facility for mass inoculations, or in other support roles.
☐	☐	☐	5.	An assessment is completed on the availability of additional healthcare providers needed in case of a pandemic outbreak on campus.
☐	☐	☐	6.	Essential services and processes, both internal and external, have been identified.
☐	☐	☐	7.	It has been determined how a pandemic may affect the institution's **internal** essential services in the absence of any local support.
☐	☐	☐	8.	It has been determined how a pandemic will affect the availability and delivery of the institution's **external** essential services.
☐	☐	☐	9.	Continuity plans for critical research and training activities have been developed.
☐	☐	☐	10.	Plans for research continuity involving human subjects, animals, and animal safety and care have been developed.
☐	☐	☐	11.	It has been determined what percentage of foreign students reside on campus and how a pandemic would impact them.
☐	☐	☐	12.	It has been determined what percentage of the institution's personnel, including students, faculty, and staff, is involved in international travel and how a pandemic would impact those activities.

Completed	In Progress	Not Started	
☐	☐	☐	13. It has been determined how a pandemic would impact the operations of the institution's agriculture school/college, if one exists.
☐	☐	☐	14. The local availability for potential interventions with antiviral medication and/or pandemic strain influenza vaccine has been determined.
☐	☐	☐	15. It has been determined how specific groups and cultural issues will be addressed before and during a pandemic; for example, language, access to media, religious practices, etc.
☐	☐	☐	16. Other issues and considerations have been identified.

D. Response Plan by Pandemic Phase

To facilitate a quick and adequate response during a crisis, all those responsible should know what to do and in what order. For this reason, response plans for each phase should be developed, bringing together all other aspects of preparedness.

See Appendix A for Avian Flu Response by Phases: Level 1, level 2, and level 3

Completed	In Progress	Not Started	
☐	☐	☐	1. A response plan by pandemic phase has been established. The response plan indicates the specific response during each phase of a pandemic.
☐	☐	☐	2. The response plan includes a mechanism for identifying triggers that will change the level of response.
☐	☐	☐	3. The response plan indicates the departments within the institution responsible for the designated responses at each phase.

Completed	In Progress	Not Started		
☐	☐	☐	4.	A response plan that identifies the responsibilities and tasks of departments and individuals at varying stages of a pandemic.
☐	☐	☐	5.	Other issues and considerations have been identified.

E. Communications: Internal and External

Communication strategies are an important component in managing any infectious disease outbreak and are essential in the event of a pandemic. Accurate, timely, and consistent information at all levels is critical in order to minimize unwanted and unforeseen social disruption and economic consequences and to maximize the effective outcome of the response.

Internal Communications

Completed	In Progress	Not Started		
☐	☐	☐	1.	A person or group with medical and/or scientific expertise has been appointed to assess risks to the campus and interpret research and determine its public health relevance to the campus community.
☐	☐	☐	2.	There is a process in place to review and approve all communiqués.
☐	☐	☐	3.	The chain of responsibility for the communications plan has been defined with a designated spokes-person appointed.
☐	☐	☐	4.	The communications plan takes into consideration an overview of all available campus media channels, including internet, campus-wide e-mail, voice, online messaging, press releases, campus radio and newspapers, 800 numbers, etc.
☐	☐	☐	5.	There is a communication plan that addresses the campus constituency at all levels to keep them informed of the progress and impact of the pandemic based on communications with state and local public health offices.

Completed	In Progress	Not Started		
☐	☐	☐	6.	The internal communication plan addresses different target groups (e.g. staff, faculty, students, student health workers, and specific risk groups), key messages to be conveyed, possible materials that are needed (web sites, leaflets, information in different languages, etc.) and distribution mechanisms to reach the target groups.
☐	☐	☐	7.	Other issues and considerations have been identified.

External Communications

Completed	In Progress	Not Started		
☐	☐	☐	1.	The external communication plan addresses different target groups (e.g. parents, donors, boards, press, general public, and health-care workers), key messages to be conveyed, possible materials that are needed (web sites, leaflets, information in different languages, etc.) and distribution mechanisms to reach the target groups.
☐	☐	☐	2.	An official campus influenza pandemic web site has been created and linked with other appropriate webs sites such as the CDC's and WHO's.
☐	☐	☐	3.	Relationships with medical and public health specialists have been established who are able to help with the development of accurate and timely messages before and during a pandemic.
☐	☐	☐	4.	A mechanism for daily briefings has been built into the communications plan if a pandemic occurs locally or otherwise impacts institutional activities, i.e. satellite campuses and/or foreign operations.

Completed	In Progress	Not Started		
☐	☐	☐	5.	Mechanisms exist for information sharing with local authorities.
☐	☐	☐	6.	The necessary technology and networks for rapid communication with the state and local authorities have been established, including teleconferencing.
☐	☐	☐	7.	Other issues and considerations have been identified.

F. Legal and Ethical Issues

During a pandemic, governmental bodies may find it necessary to overrule existing legislation or individual human rights. Examples include the enforcement of quarantine (over-ruling individual freedom of movement), use of privately owned buildings for hospitals, off-license use of drugs, and compulsory vaccination or implementation of emergency shifts in essential services. These decisions need a legal framework to ensure transparent assessment and justification of the measures that are being considered.

Ethical issues are closely related to those legal issues as mentioned above. They are part of the framework that is needed to assess the cultural acceptability of measures such as quarantine or selective vaccination of predefined risk groups.

Completed	In Progress	Not Started		
☐	☐	☐	1.	Liability issues have been considered and identified in the event the institution fails to respond appropriately to a pandemic outbreak.
☐	☐	☐	2.	The advantages and disadvantages of a declaration of a state-of-emergency on campus during a pandemic have been identified.
☐	☐	☐	3.	Liability issues have been considered and identified in the event the institution fails to provide adequate level of care to students.

Completed	In Progress	Not Started		
☐	☐	☐	4.	The institution has assessed the legal impacts of public health measures that are likely to be proposed, including: travel or movement restrictions (leaving and entering areas where infection is established); campus closings; prohibition of mass gatherings; isolation or quarantine of infected persons, or of persons suspected of being infected, or persons from areas where pandemic strain influenza infection is established.
☐	☐	☐	5.	The liability, insurance, and any necessary licensing issues have been considered for temporary, retired workers, and volunteers who may be assisting in areas outside their training and competence, particularly health and emergency services.
☐	☐	☐	6.	The liability issues have been considered for unforeseen adverse events in the possibility of administering a vaccine and/or antiviral drug, especially where the licensing process for a pandemic strain vaccine has been expedited.
☐	☐	☐	7.	The legal and ethical questions have been considered for limiting the availability of a scarce resource, such as rationed diagnostic laboratory testing, pandemic strain influenza vaccine or antiviral drugs.
☐	☐	☐	8.	The legal and ethical questions related to compulsory vaccination for health-care workers and workers from essential services have been considered.
☐	☐	☐	9.	The legal and ethical issues related to limiting personal freedom, such as may occur with isolation and quarantine, have been considered.

Completed	In Progress	Not Started	
☐	☐	☐	10. For research institutions, the establishment of a legal and ethical framework for research involving **human subjects** has been considered.
☐	☐	☐	11. For research institutions, the establishment of a legal and ethical framework for research involving **animal subjects** has been considered.
☐	☐	☐	12. Other issues and considerations have been identified.

2. Implementation, Testing, and Revision of the Plan

A pandemic plan needs to be reviewed often, updated as needed, and frequently and widely distributed. To ensure full implementation of the plan at all levels, it is recommended to set targets or define indicators that can be used to measure progress prior to a community or campus outbreak.

Questions for consideration:

- Who will set targets and oversee measures to assure progress in developing the plan?
- Who will be assigned to testing the plan?
- Who will be involved in deciding what to revise in the plan and when?
- Who will oversee decisions regarding when to implement the plan?
- Who will implement the plan?

Completed	In Progress	Not Started		
☐	☐	☐	1.	In the absence of outbreaks, a period of time has been established in which to review, revise and test the plan; for example, annually, biannually, etc.
☐	☐	☐	2.	In the absence of an outbreak, a mechanism is in place to ensure that the plan is tested and updated in the absence of, and prior to, a pandemic outbreak; for example, a table-top review of the preparedness and response plan is developed based on realistic situations.
☐	☐	☐	3.	An individual has been identified who is responsible for facilitating the regular review, testing and revision of the plan; for example, the health services director, risk manager, disaster services coordinator, EH&S Manager, etc.
☐	☐	☐	4.	Processes are in place to assure improvement opportunities, once identified in the testing, are pursued; for example, critiquing of the drill, documentation of action items, assignment of action items to individuals, etc.
☐	☐	☐	5.	Other issues and considerations have been identified.

3. Monitoring Incidence and Prevalence

Monitoring incidence and prevalence consists of ongoing collection, interpretation, and dissemination of data to enable the development of evidence-based interventions. Specific groups to pay particular attention to might include the agricultural schools and students and faculty who may come in contact with chickens and other birds; medical school and hospital workers; research laboratory workers; student health workers; returning students, faculty, and staff traveling abroad; and foreign students enrolling on your campus in the United States.

Questions for consideration:

- What type of monitoring is needed on campus?
- Who should be responsible for data collection and analysis?
- Who should use the information for policy and procedures development?
- How will the campus' monitoring system coordinate with local-area systems?

Completed	In Progress	Not Started		
☐	☐	☐	1.	A coordination mechanism for monitoring in advance and during the response to an outbreak or pandemic has been established; for example input from housing, security services, student health, athletics, international programs, and local authorities.
☐	☐	☐	2.	Personnel have been identified who are responsible for monitoring incidence and prevalence for infection internationally, regionally, and locally.
☐	☐	☐	3.	Objectives have been defined for a pandemic alert before and during a pandemic.
☐	☐	☐	4.	A point of contact has been identified at the local and/or regional health department and ongoing communication about their plan and its impact on the institution is occurring.
☐	☐	☐	5.	Procedures to detect unusual or unexplained events of acute respiratory illnesses among students, faculty, and staff on campus have been developed in order to trigger appropriate public health and laboratory investigations.

Completed	In Progress	Not Started	
☐	☐	☐	6. Procedures have been developed to help identify possible cases of pandemic influenza that might not otherwise be detected by routine monitoring among students, faculty, and staff.
☐	☐	☐	7. Procedures have been developed to notify public health officials of unusual illnesses and medical conditions occurring among students, faculty, and staff.
☐	☐	☐	8. Procedures for daily reporting of cases among students, faculty, and staff to local-area authorities have been developed, including information on the possible source of infection.
☐	☐	☐	9. Appropriate protocol and contacts have been developed for arranging public health testing of students, faculty, and staff suspected of exposure or illness.
☐	☐	☐	10. A central reporting mechanism has been established for reporting: • Employee “call-offs”/absences because of flu symptoms • Number of students in isolation and quarantine because of flu • Number of confirmed cases of flu being treated with antivirals • Number of flu symptom transports to ERs.
☐	☐	☐	11. Other issues and considerations have been identified.

4. Infection Control

Guidelines for infection control are important to clarify the routes of transmission and the ways to interrupt transmission through measures of hygiene. Infection control is an essential part of pandemic management.

Questions for consideration:

- Who will be responsible for establishing infection control guidelines?
- Who will be responsible for educating students, faculty, and staff about infection control procedures?
- How will implementation for infection controls be monitored and enforced?

Completed	In Progress	Not Started	
☐	☐	☐	1. Campus-wide education has been developed and is available, including: • Information on routes of transmission • How to prevent spread of the disease, including general hygiene measures such as cough etiquette and hand washing • Medical follow-up to symptoms • Isolation (prophylactic) • Treatment with antiviral drugs, etc.
☐	☐	☐	2. General bio-safety protocols have been developed where needed on campus; for example, research laboratories, animal care facilities, custodial services, etc.
☐	☐	☐	3. Personnel have been identified who will need special in-depth training because of the likelihood of exposure and infection; for example health care workers, security services personnel, emergency responders, housekeeping, and food services personnel; and anyone who may be working outside their area of competence and training.
☐	☐	☐	4. Equipment needed to implement CDC recommended infection control and bio-safety measures; including personal protective equipment and fit testing for respiratory protection, has been identified.

Completed	In Progress	Not Started	
☐	☐	☐	5. The availability of equipment needed to implement CDC recommended infection control and bio-safety measures has been assured.
☐	☐	☐	6. Policies have been developed on when to use personal protective equipment.
☐	☐	☐	7. Waste disposal and housekeeping protocols have been developed to prevent the exposure and spread of the disease.
☐	☐	☐	8. Protocols for the handling, transfer, and storage of the deceased have been developed to prevent the exposure and spread of the disease.
☐	☐	☐	9. Fitness-for-duty procedures have been established to identify recovered cases of essential employees presumed to be immune.
☐	☐	☐	10. Other issues and considerations have been identified.

5. Public Health Measures:
Social Distancing and Quarantine, Travel Restrictions

As the access to vaccines and antiviral drugs during a pandemic will be extremely limited, non-medical interventions may be the only way to delay the spread of the disease. Many of these interventions, however, may affect human behavior and human rights and therefore need a strong educational and legal basis. Moreover, most of the interventions are based on limited evidence. Therefore, transparent decision-making and frank information-sharing should go hand-in-hand with the measures discussed in this section.

Questions for consideration:

- Who will determine what type of pre-planning information is needed on campus?
- Who will be responsible for distributing educational materials to students, faculty, and staff?
- Who will coordinate the campus' monitoring system with local-area systems?

Completed	In Progress	Not Started		
☐	☐	☐	1.	The campus community knows how to achieve protection and contribute to limiting the spread of the disease, including public health measures that might be implemented to limit community spread, such as voluntary or enforced quarantine.
☐	☐	☐	2.	Logistical plans are in place to decide, carry out and communicate the proposed measures to limit the spread of the disease.
☐	☐	☐	3.	Persons who will be affected by public health measures have been informed about the expected effects and limitations.
☐	☐	☐	4.	General information on personal respiratory hygiene has been developed and distributed.
☐	☐	☐	5.	Personal advice about reducing the risk of transmission is easily available to the campus community, for instance on an official influenza pandemic web site.

Completed	In Progress	Not Started	
☐	☐	☐	6. Infection control guidelines are in place for non-medical settings; for instance in specific places where people gather or where there is a high risk of spread of infection (residence halls, classrooms, laboratories, athletic facilities, etc.).
☐	☐	☐	7. Criteria to close the campus have been determined and the process for implementation has been developed.
☐	☐	☐	8. Criteria for the prohibition of mass gatherings have been defined and the process for implementation has been developed.
☐	☐	☐	9. Procedures for implementing confinement and quarantine, if proposed, have been developed taking into consideration the legal and practical issues.
☐	☐	☐	10. Places on campus have been identified and designated for quarantine purposes.
☐	☐	☐	11. Procedures for the provision of medical care, food supply, social support, and psychological assistance for people in quarantine have been developed.
☐	☐	☐	12. Procedures for transport of persons to quarantine sites and from there to hospitals or mortuaries have been developed.
☐	☐	☐	13. Procedures to restrict domestic and foreign travel have been developed.
☐	☐	☐	14. Consequences of travel restrictions on partnering organizations have been identified.
☐	☐	☐	15. Other issues and considerations have been identified.

6. Maintaining Essential Services:
Decision to Stay Open versus Decision to Close

Essential services are those functions that keep a campus operating. Priorities may differ from institution to institution, but power, drinking water, transportation, and telecommunications are examples. Consideration of the effect of a pandemic on those persons who perform or assure the delivery of essential services is an important part of planning.

Typical departmental considerations follow. It is up to each institution to define for itself; however, based on its mission and priorities, what are the essential services required. For example, included in this section are considerations, in no particular order, for Student Health Services, Food Services, Admissions/Registrar/Financial Aid, Academic Affairs, Human Resources, Student Housing Services, Physical Plant and Facilities, International Studies and Foreign Operations, Counseling, Campus Security, and Business and Finance.

Other departmental considerations for essential services might include Public Affairs and Media Relations, Animal Care/Research Laboratories, Legal Affairs, Environmental Health and Safety, and Telecommunications.

Questions for consideration:

- Who will be among those deciding what the most essential services are?
- What criteria will be used in making such a decision?
- Who will be among those deciding whether to keep the institution open for classes or to shut down altogether for a specified period of time?
- What criteria will be used in making such a decision?

Completed	In Progress	Not Started	
☐	☐	☐	1. Those essential services necessary to maintain the primary mission of the institution have been identified; for example, teaching, research, etc.
☐	☐	☐	2. The delivery of essential services to campus has been evaluated; for example, food services, custodial services, travel to foreign locations, utilities, etc.
☐	☐	☐	3. Each designated essential service has developed emergency contingency plans applicable to a pandemic.

Completed	In Progress	Not Started	
☐	☐	☐	4. Persons responsible for maintaining essential community services have been identified; for example, law enforcement and security, student health services, facilities, etc.
☐	☐	☐	5. A list has been developed of essential campus personnel whose absence would pose a serious threat to public safety, or would significantly interfere with the response to a pandemic.
☐	☐	☐	6. Contingency plans have been developed for coping with shortages of workers in these services; for example, cross training volunteers.
☐	☐	☐	7. Protocols have been developed for utilizing and training volunteers and untrained workers for essential service roles; for example, training in advance versus post-incident training.
☐	☐	☐	8. Opportunities for cross training “single source” providers to enhance operational redundancy have been identified; for example, a single employee normally assigned, trained, and familiar with a key process or service.
☐	☐	☐	9. Those persons who are responsible for maintaining essential services and who “moonlight” for another entity have been identified and it has been pre-determined which entity they will respond to and support during a pandemic event.
☐	☐	☐	10. The institution has compared its needs assessment for essential services to the needs of the community for similar services; for example, housing, food, medical treatment, building and vehicle use, etc.

Completed	In Progress	Not Started	
☐	☐	☐	11. Mutual Aid and/or Memo of Understanding agreements with other institutions or service providers for essential services have been developed; for example, science labs, food services, housing, etc.
☐	☐	☐	12. Discussions have taken place, and decisions made, as to what conditions need occur to decide whether to keep the institution open for classes or to shut down altogether for a specified period of time.
☐	☐	☐	13. Other issues and considerations have been identified.

Campus Considerations

A. Student Health Center

Assess the need and explore the options for accommodating staff on campus indefinitely, and stockpiling additional medical supplies, including personal protective equipment.

Completed	In Progress	Not Started		
☐	☐	☐	1.	Plans have been developed to assure ongoing student health services in the event of a reduction in work force.
☐	☐	☐	2.	Protocols have been established for communicating with local heath department and hospital emergency rooms.
☐	☐	☐	3.	Protocols have been established for planning and communicating with parents.
☐	☐	☐	4.	Planning has occurred and protocols have been established for pre-event counseling with students.
☐	☐	☐	5.	A range of **supplies and medications,** including antibiotics and IV Fluids, have been identified and stockpiled for use in the prevention of and exposure to influenza.
☐	☐	☐	6.	Appropriate type and amount of **personal protective equipment** has been identified and stockpiled that will be useful for treatment of influenza complications.
☐	☐	☐	7.	There is a process in place to ensure that stockpiled materials that have expiration dates have not exceeded those dates.
☐	☐	☐	8.	Policies and procedures have been developed for fit-testing of respirators when required to be worn.

Completed	In Progress	Not Started	
☐	☐	☐	9. Contingency plans have been developed for buying increased supplies of antibiotics, including the identification of suppliers, supply quantities, and necessary lead time.
☐	☐	☐	10. A strategy has been developed for the triaged-distribution of stockpiled supplies and medication.
☐	☐	☐	11. For campuses without infirmaries, a plan has been developed for establishing one on campus.
☐	☐	☐	12. An **internal** notification plan and alert mechanism is defined and in place.
☐	☐	☐	13. An **external** notification plan and alert mechanism is defined and in place.
☐	☐	☐	14. A negative pressure room has been created for private evaluations of patients with flu like symptoms.
☐	☐	☐	15. Signs have been posted at all entry points to the clinic directing patients with flu like symptoms and/or returning from recent international travel to areas where there have been avian flu outbreaks to self-identify and register with staff immediately.
☐	☐	☐	16. The time lag between sending samples for testing and getting results has been determined.
☐	☐	☐	17. Clinic protocols have been developed for evaluating patients with flu like symptoms to determine the likelihood of an avian flu exposure while minimizing contact and self-exposure.
☐	☐	☐	18. Clinic protocols have been developed for caring for students exposed to the flu but not symptomatic.
☐	☐	☐	19. Clinic protocols have been developed for caring for students who are ill but not hospitalized.

Completed	In Progress	Not Started	
☐	☐	☐	20. Staff has been trained in the safe disposal of hazardous waste resulting from a flu outbreak.
☐	☐	☐	21. Staff has been trained in each of the above noted protocols.
☐	☐	☐	22. Transportation policies to isolation areas have been developed.
☐	☐	☐	23. The development and implementation of protocols have been developed for the safe handling of corpses, respecting cultural and religious beliefs.
☐	☐	☐	24. The emergency capacity for storage of corpses before transfer to a morgue has been determined.
☐	☐	☐	25. Other issues and considerations have been identified.

B. Food Services

Completed	In Progress	Not Started	
☐	☐	☐	1. Plans have been developed to assure the ongoing provision of food services in the event of a reduction in work force.
☐	☐	☐	2. Appropriate type and amount of non-perishable foods have been stockpiled.
☐	☐	☐	3. Appropriate amount of prepackaged utensils have been stockpiled.
☐	☐	☐	4. There is a process in place to ensure that stockpiled foodstuffs that have expiration dates have not exceeded those dates.
☐	☐	☐	5. Medical personnel have trained essential food service personnel on the risks and response to flu exposure.

Completed	In Progress	Not Started		
☐	☐	☐	6.	Infection control policies and procedures are developed to minimize or prevent the spread of flu from self-serving operations and food service personnel; i.e. replacing open utensil bins with prepackaged plastic utensils.
☐	☐	☐	7.	Enforcement policies have been developed for assuring infection control procedures are followed to minimize or prevent the spread of flu by and among food service personnel.
☐	☐	☐	8.	The impact of a pandemic on supply chains such as food deliveries has been identified and expected deficiencies have been addressed.
☐	☐	☐	9.	Plans are in place to safely transport food to individuals isolated or quarantined.
☐	☐	☐	10.	Other issues and considerations have been identified.

C. Admissions/Registrar/Financial Aid

Completed	In Progress	Not Started		
☐	☐	☐	1.	A policy has been developed to address academic and financial concerns of students resulting from prolonged absences from class or temporary closure of the institution.
☐	☐	☐	2.	A plan is in place to address decreased tuition receivables if there is a significant reduction in returning students or faculty.
☐	☐	☐	3.	A means to monitor the whereabouts of students during a pandemic has been developed.

Completed	In Progress	Not Started	
☐	☐	☐	4. A plan is in place to continue the recruiting and admissions process during a quarantine.
☐	☐	☐	5. A plan is in place to continue financial aid.
☐	☐	☐	6. Other issues and considerations have been identified.

D. Academic Affairs

Completed	In Progress	Not Started	
☐	☐	☐	1. A policy has been developed to address academic concerns of students resulting from prolonged absences from class.
☐	☐	☐	2. A procedure is in place for students to take courses on-line.
☐	☐	☐	3. A procedure is in place for students in isolation to obtain class lectures and participate in exams.
☐	☐	☐	4. A procedure is in place to provide tutoring to students in quarantine or isolation.
☐	☐	☐	5. Other issues and considerations have been identified.

E. Human Resources

Completed	In Progress	Not Started	
☐	☐	☐	1. Emergency contact information has been updated for students, faculty, and staff.
☐	☐	☐	2. A work-at-home policy has been developed for non-essential personnel.
☐	☐	☐	3. IT resources are available for work-at-home for students, faculty, and staff.

Completed	In Progress	Not Started		
☐	☐	☐	4.	There is a system in place to train temporary workers.
☐	☐	☐	5.	There is a policy requiring cross-training of essential personnel.
☐	☐	☐	6.	There is a means to provide support and benefit information to employees' families other than face-to-face.
☐	☐	☐	7.	Other issues and considerations have been identified.

F. Student Housing Services

Completed	In Progress	Not Started		
☐	☐	☐	1.	On-campus housing has been identified for use as isolation units for students who may not be able to be isolated off-campus or at home.
☐	☐	☐	2.	On-campus isolation areas do not have recirculated air have been identified for use.
☐	☐	☐	3.	On-campus isolation areas that have private bathrooms have been identified for use.
☐	☐	☐	4.	Evaluation centers to send students who believe they have been exposed or exhibit flu like symptoms have been identified.
☐	☐	☐	5.	Other issues and considerations have been identified.

G. Physical Plant and Facilities

Completed	In Progress	Not Started		
☐	☐	☐	1.	Buildings best suited to serve as triage treatment centers, quarantine areas, and morgues have been identified.
☐	☐	☐	2.	Plans have been developed to assure the ongoing provision of essential services in the event of a reduction in work force.
☐	☐	☐	3.	Appropriate type and amount of personal protective equipment has been stockpiled.
☐	☐	☐	4.	Appropriate type and amount of germicidal and disinfectant supplies have been stockpiled.
☐	☐	☐	5.	There is a system in place to transport supplies and personnel to secondary facilities.
☐	☐	☐	6.	Other issues and considerations have been identified.

H. International Studies and Foreign Operations

Completed	In Progress	Not Started		
☐	☐	☐	1.	Well-defined policies have been developed for • Trip cancellation • Restricted travel regions • Repatriation • Academic credit issues • Shelter-in-place guidelines
☐	☐	☐	2.	A policy regarding advisory statements as part of the orientation process has been developed for persons planning to travel to affected areas, including safety and potential personal financial obligations.

Completed	In Progress	Not Started		
☐	☐	☐	3.	Plans have been developed for communicating with and assisting students, faculty and staff who may be restricted from returning to the United States from affected countries, or who may be quarantined while overseas.
☐	☐	☐	4.	Plans have been developed for communicating with and assisting international students, faculty and staff working and learning on the home-campus in the United States and who may be restricted from returning to their homelands if the United States is affected, or who may be quarantined while in the United States.
☐	☐	☐	5.	Plans have been developed for faculty, staff, and students upon return to home-campus to review health status and incubation concerns.
☐	☐	☐	6.	Plans have been developed for inquiries from families regarding student foreign travel.
☐	☐	☐	7.	Plans have been developed for appropriate protocol training for foreign campus location's on-site staff and faculty regarding monitoring and infection control.
☐	☐	☐	8.	The consequences of travel restrictions on partnering organizations have been identified, and reviewed for contractual obligations, including clarification on what each institution's obligations will be in the event of an outbreak and who pays.
☐	☐	☐	9.	Consideration has been given to provide recommendations on hygiene supply kits to faculty, staff and students specific to foreign locations in which they are planning to visit or study.
☐	☐	☐	10.	Other issues and considerations have been identified.

I. Counseling

Completed	In Progress	Not Started		
☐	☐	☐	1.	A plan has been developed to provide counseling services to faculty, staff, and students pre, during, and post event with special recognition to the significant number of deaths anticipated.
☐	☐	☐	2.	A procedure has been developed to offer counseling services to faculty, staff, and students by means other than face-to-face.
☐	☐	☐	3.	Other issues and considerations have been identified.

J. Campus Security

Completed	In Progress	Not Started		
☐	☐	☐	1.	Plans have been made to secure and protect **selected areas** on campus declared off-limits for both short and long term periods of vacancy or quarantine; for example, health center, food service centers, campus security's dispatch center, etc.
☐	☐	☐	2.	Plans have been made to secure and protect the **campus' premises** if declared off-limits for both short and long term periods of vacancy or quarantine.
☐	☐	☐	3.	Plans have been made to secure and protect the campus dispatch center so that it remains open and operational for critical "routine" activities outside of those involving a pandemic.

Completed	In Progress	Not Started	
☐	☐	☐	4. Plans have been made to secure and protect the campus from encroachment from neighbors and other non-campus populations seeking services and refuge in the event of panic; or alternatively, plans have been made to communicate ahead of time with the community as to the availability of, if any, services to the community from the institution.
☐	☐	☐	5. A security plan is readily employable to secure and protect the campus' consumer staples, including food, water, and essential healthcare items.
☐	☐	☐	6. The Campus Security Services department has met with local authorities to understand the plans and expected limitations of local police, fire, and all other local emergency services.
☐	☐	☐	7. Arrangements are readily employable to control access to campus and specific facilities when any have been designated by public entities as sites for public immunizations or other services.
☐	☐	☐	8. A policy has been developed to bring in the director of student health services or other medical personnel to assist in managing an outbreak.
☐	☐	☐	9. A policy has been developed to refer all media matters and inquires to those in charge of media relations.
☐	☐	☐	10. Appropriate type and amount of personal protective equipment has been stockpiled.
☐	☐	☐	11. Other issues and considerations have been identified.

K. Business and Finance

Completed	In Progress	Not Started		
☐	☐	☐	1.	The potential financial impact of a pandemic has been estimated.
☐	☐	☐	2.	The institution has identified funds for business continuation in the event of a pandemic.
☐	☐	☐	3.	A system is in place to maintain payroll and accounts payable in the event a substantial number of employees are absent.
☐	☐	☐	4.	A system is in place to maintain the purchasing of goods and services in the event a substantial number of employees are absent.
☐	☐	☐	5.	A system is in place to ensure appropriate funds transfer to meet financial and regulatory obligations of the institution.
☐	☐	☐	6.	A system is in place to secure potentially vulnerable cash handling during a pandemic.
☐	☐	☐	7.	Other issues and considerations have been identified.

7. Recovery

After a pandemic wave is over, it can be expected that many people will be affected in a variety of ways. Many may have lost friends and relatives, suffer from fatigue, or have financial losses as a result of the interruption of work. Campus authorities should ensure that these concerns can be addressed.

Questions for consideration:

- Who will make the decision when recovery can begin?
- Who will be assigned to a recovery response?

Completed	In Progress	Not Started	
☐	☐	☐	1. A prioritization sequence has been established in which essential services and key activities will be restored.
☐	☐	☐	2. A plan has been developed to establish recovery time-frames for essential services and key activities; for example, registrar's office within 2 weeks, physical plant operational within 24 hours.
☐	☐	☐	3. All essential services have developed **recovery** plans.
☐	☐	☐	4. Human resources have been determined for social, psychological and practical support to students and affected faculty, and staff and their families; for example, employee assistance program, student counseling, etc.
☐	☐	☐	5. The financial impact of a recovery process has been estimated and available sources of funds have been determined; for example insurance, fundraising, use of endowment, etc.
☐	☐	☐	6. Other issues and considerations have been identified.

8. Conclusion

This planning document is by no means complete nor is it intended to be. There are a multitude of issues both common and unique to colleges and universities to take into consideration when contemplating how best to respond to any crisis. Pandemic flu is only one of many events that can adversely impact a college or university campus.

Effective, efficient, well-reasoned, and tested emergency and disaster plans are critical at any time of crisis. Members of the panel involved in the development of this blueprint strongly encourage all institutions of higher education to review, update, and regularly test their emergency reponse and business continuity plans for, not only this, but other potential perils and hazards.

9. Appendices

Appendix A:
Courtesy of Carnegie Mellon University
Avian Flu Response by Phases: Level 1, Level 2, and Level 3
March 2006

Revision I – Epidemic Response

Avian Influenza Response:

1. Confirmed cases of human-to- human transmission of avian flu
2. Suspected case(s) on Campus or suspected/confirmed cases in Pittsburgh area
3. Confirmed case(s) on Campus [Only essential personnel required to report to campus.

	Level 1	Level 2 (in addition to Level 1 actions)	Level 3 (in addition to Level 2 actions)
1. Assessment Team (FMS, EH&S, Health Center & Univ. Police)	1. Bring in Director of Health Center as Incident Commander 2. Monitoring situation 3. Contact Media Relations* 4. Bring in Housing/Dining for quarantine planning. 5. Essential personnel receive fit test & training on respiratory protection from Environmental Health & Safety (EH&S)	Essential personnel receive N95 respirators from EH&S	1. Maintain contact amongst Assessment Team.

	Level 1	Level 2 (in addition to Level 1 actions)	Level 3 (in addition to Level 2 actions)
2. Incident Commander (Director of Health Center)	1. Communicate with Allegheny County Health Department and UPMC regarding planning and surveillance. 2. Communicate and benchmark other college Health Services and EH&S Depts. 3. Alert Advisory Group Coordinator 4. Establish communication with deans and Sr. Director of Global Security regarding status of preparedness. 5. Update emergency action plan with Assessment Team & Advisory Group Coordinator as situation evolves. 6. In conjunction with the Advisory Group Coordinator, issue communication(s) to campus community regarding status of disease spread, self protection and university response. (e-mail, website, town meetings)	1. Notify Allegheny County Health Dept. 2. Notify Student Affairs and Counseling and Psychological Services (CAPS). 3. Notify Housing & Dining on number of potential contacts that may require isolation. 4. Compose communications with Media Relations and the Advisory Group Coordinator for the campus community regarding signs/symptoms, protocol for referral of suspected cases. 5. Essential personnel receive N95 respirators from EH&S	1. Advise Advisory Group Coordinator* to activate Emergency Operations Center (EOC) [moved from 1.3.2] 2. Recommend temporary closure of building(s) and suspension of student and academic activities to Advisory Group Coordinator. 3. Implement Emergency Action Plan with Assessment Team & Advisory Group Coordinator. 4. Ensure that each Operations Group function is covered.
3. University Police	1. Health Center trains dispatchers, security, and police on avian flu. 2. Alert Student Health Center if encountering individual(s) with flu-like symptoms. 3. Essential personnel receive fit test and training on respiratory protection from EH&S	1. Implement policy on transporting individual to hospitals. 2. Essential personnel receive N95 respirators from EH&S	1. Secure buildings & post signage 2. Assist Health Center

	Level 1	Level 2 (in addition to Level 1 actions)	Level 3 (in addition to Level 2 actions)
4. Facilities Management	1. Identify building ventilations systems. 2. Essential personnel receive fit test and training on respiratory protection from EH&S	Essential personnel receive N95 respirators from EH&S	1. Stand by to shut off utilities as directed by Incident Commander, if necessary
5. Environmental Health & Safety	1. Assess respiratory protection plan and resources. 2. Contract with hazardous material company for professional cleanup. 3. Train and fit essential personnel for respirators	1. Arrange for additional medical waste pickups. 2. Distribute N95 to essential personnel.	1. Assist w/notification of Emergency Coordinators* 2. Assist Health Care Center
6. President's Office Advisory Group Coordinator	1. Receive information from Incident Commander 2. Review content of internal and external public information bulletins and announcements. Work with Media Relations to select appropriate university spokesperson(s) for media reporting. 3. Essential personnel receive fit test and training on respiratory protection from EH&S 4. Consider restricting movement on and off campus for activities/athletic events.	1. Advise Executive Management on response options. 2. Activate EOC 3. Receive N95 respirators from EH&S	1. Provide oversight for student, staff, & faculty family notifications if appropriate.
President's Office Executive Management	1. Based on U. S. State Department recommendations, University recommends campus community not to travel to affected countries. 2. Receive fit test and training on respiratory protection from EH&S	1. Evaluate information on institutional effects of the incident and set response priorities as appropriate. 2. Essential personnel receive N95 respirators from EH&S	1. Authorize temporary suspension of classes or closure.

	Level 1	Level 2 (in addition to Level 1 actions)	Level 3 (in addition to Level 2 actions)
7. Media Relations	1. Draft internal and external bulletins and announcements, with the Advisory Group Coordinator.	1. Appoint liaison to interface with the Advisory Group. 2. Write and record bulletins and updates on the University's Emergency Information Hotlines (8-2000). 3. Write scripts for phone tree with approval from Advisory Group Coordinator. 4. Request to campus that faculty and staff and their families to report all flu cases to Incident Commander.	1. Organize phone banks, if necessary (phone banks can refer callers to emergency services, take messages, support rumor control) 2. Establish a Media Relations Center: coordinate press releases, and manage news teams and interviews, etc.
8. Emergency Coordinators	Not applicable	1. Watch CMU front page and disseminate information to Floor Marshals. 2. Remain available for further instructions	Same as Level 2
9. Student EMS	1. Health Center trains EMS on avian flu. 2. Notify Health Center if suspected cases are encountered. 3. Essential personnel receive fit test and training on respiratory protection from EH&S	Not applicable	Not applicable
10. Radio Club	Not applicable	Not applicable	Not applicable
11. Parking	Not applicable	Not applicable	Clear Morewood Parking lot for medical staging area.

	Level 1	Level 2 (in addition to Level 1 actions)	Level 3 (in addition to Level 2 actions)
12. Housing and Dining	Enact planning for quarantine of students: 1. Health Center trains essential personnel on risks and response. 2. Identify potential rooms and/or buildings to be used for quarantined students. Update by semester based on current occupancy. 3. Notify current occupants in spaces that will be needed of the potential or need for them to move. 4. Ensure emergency response menu is planned for various degrees of need. 5. Stockpile additional food stuffs and water. 6. Ensure food delivery process is planned and delivery supplies are on hand. 7. Essential personnel receive fit test and training on respiratory protection from EH&S	Enact plan for quarantine of students: 1. Set up Housing and Dining command center and recall essential personnel. 2. Enact emergency phone contact tree. 3. Identify meal delivery need and method for quarantined students. 4. Communicate situation and needs to owners and landlords of rented properties. 5. Identify roles of essential staff: leadership, communications, food production, food delivery, maintenance and housekeeping. 6. Essential personnel receive N95 masks from EH&S 7. Activate emergency locator tracker on housing website for use by displaced students to report their temporary addresses.	1. Activate plan from level 2 to quarantine students in conjunction with the guidance from the County Health Department.
13. Dining Services	See above	See above	See above.

	Level 1	Level 2 (in addition to Level 1 actions)	Level 3 (in addition to Level 2 actions)
14. Risk Management	1. Identify risk exposures for which insurance can and cannot be obtained including associated financial impact. 2. Identify steps that must be taken to monitor and protect insurance coverage. 3. Benchmark risk management response and insurance coverage options with peer universities.	1. Communicate with insurance carriers on evolving campus issues.	1. Assess actual risk/insurance claim issues.
15. Medical Services	1. Post entry door notifying patients with influenza profile and have traveled to (or have been visited by persons from) effected countries to call 8-2157 opt 2. 2. Isolated exam room 3. Arrange for negative pressure machines. 4. Standard precautions in place 5. Respiratory protection equipment in place. 6. In-service training for avian flu. 7. Follow State and County protocol for patient testing. 8. Monitor Health Care workers. 9. Essential personnel receive fit test and training on respiratory protection from EH&S 10. Policy on transporting individual to hospitals.	1. Isolate and monitor suspected cases. 2. Identify contacts of suspected case. 3. Communicate with parents of suspected cases and explain procedure. 4. Initiate prophylaxis of contacts based on strength of patient presentation. 5. Update Incident Commander 6. Establish phone triage lines for Student Health Services and CAPS. 7. CAPS initiates pre-event counseling for essential personnel. 8. Initiate poster, e-mail campaign on self- protection. [from 2.2.5].	1. Isolation room in Health Center (negative pressure) 2. Locating people contacted by patient. 3. Arrange for screening of people who have had contact. 4. Arrange for counseling services 5. Contact Coroner's office if necessary

	Level 1	Level 2 (in addition to Level 1 actions)	Level 3 (in addition to Level 2 actions)
		9. Essential personnel receive respirators from EH&S.	
16. Computing & Telecommunications	1. Assess supplemental telecomm./computing hardware/software needs: • Student Affairs • Health Services • Public Relations • Counseling Center • Human Resources • Telecommunications 2. Assess needs for webpage support. 3. Develop plan for adding volunteers to pubic email addresses. 4. Develop plan for distributing telephone calls to homes or phone banks.	1. Purchase/contract for supplemental telecommunications/ computing hardware/ software needs.	1. Add additional phone lines to EOC, quarantine areas, and functional groups. 2. Publish messages from Public Relations on a periodic basis on Carnegie Mellon web's front page. 3. Assist with email message distribution 4. Set up podium and microphones for media center at PPG. 5. Provide guidance for forwarding phones and setting up "bounce messages."

	Level 1	Level 2 (in addition to Level 1 actions)	Level 3 (in addition to Level 2 actions)
17. Student Affairs & Housefellows	1. Health Center trains; Office International Education (OIE), CAPS, Housefellows, Resident Assistants and other offices within the Division on avian flu. 2. OIE monitors student travelers entering from effected regions and assists with communication to international students and their families. 3. OIE formulates and rehearses plan to address needs/support for graduate and commuter students. 4. Housefellows – Formulate and rehearse plan to address needs/support for undergraduates. 5. Student Life – Formulate and rehearse plan to address needs/support for Greek organizations. 6. CAPS – see addendum 7. Identify division personnel available for telephone support work. 8. Receive fit test and training on respiratory protection from EH&S	1. Arrange for monitoring/delivery of medications, other goods and services to isolated cases. 2. Assist with relocation of students for quarantine 3. Assist with telephone consultation and support. 4. Essential personnel receive respirators from EH&S.	1. Identify student events where confirmed patients have attended. 2. Residential staff assists Health Center.
18. Human Resources	1. Identify essential personnel. 2. Monitor faculty & staff travelers entering from effected regions. 3. Prepare a call-off policy 4. Identify personnel available for telephone support work.	Same as Level 1	Activate call-off policy.

*Refer to Communication Matrices for all telephone numbers

Appendix B:
Avian Flu Resources

While not an exhaustive listing, the following will provide key resources to stay informed of Avian Influenza activities

- Official United States government website on pandemic flu and avian influenza
  http://www.pandemicflu.gov/
- Avian and Pandemic Influenza Management and Response Unit, USAID
  http://www.usaid.gov/our_work/global_health/home/News/news_items/avian_influenza.html
- National Vaccine Program Office, HHS
  http://www.hhs.gov/nvpo/pandemics/index.html
- Avian Flu Facts, CDC
  http://www.cdc.gov/flu/avian/index.htm
- National Institute for Allergy and Infectious Diseases, NIH
  http://www3.niaid.nih.gov/news/focuson/flu/default.htm
- WHO Avian Flu Home Page
  http://www.who.int/csr/disease/avian_influenza/en/
- World Organization for Animal Health
  http://www.oie.int/eng/AVIAN_INFLUENZA/home.htm
- Global Health Council
  http://www.globalhealth.org
  For regular updates, contact
  nbates@globalhealth.org
- Texas Christian University
  www.saf.tcu.edu
- University of Denver
  www.du.edu/risk

Experts

For a listing of some of the experts currently working on avian influenza and related issues, **visit http://www.globalhealth.org/avian_flu/experts.php**

For a listing of private industry entities currently working on avian influenza, visit **http://www.globalhealth.org/avian_flu/private_industry.php**

Reports

The World Health Organization (WHO) has released a document recommending strategic actions to respond to the avian influenza threat. The document sets out activities that can be undertaken by individual countries, the international community, and WHO to prepare the world for an influenza pandemic and to help mitigate its impact once international spread has begun. To view the complete document, visit

http://www.globalhealth.org/images/pdf/avian_flu/who_recommendations.pdf

Appendix C:
Courtesy of Cornell University
A Sample Emergency Management Team and Organization