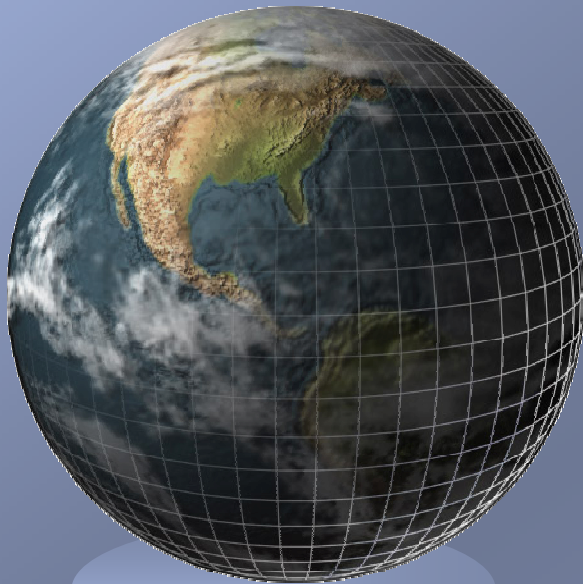


Pandemic Planning

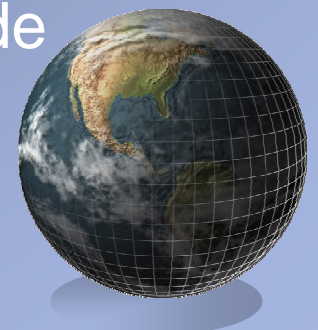


ACHA Annual Meeting
NYC
May 31, 2006

Anita L. Barkin MSN, DrPH
Carnegie Mellon University
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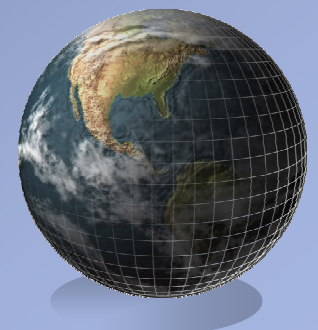
Purpose

- Introduce ACHA Pandemic Planning Guidelines for Colleges and Universities
- Discuss the importance of planning and how to get started
- Identify the challenges to planning
- Describe specific areas that should be included in planning
 - Meeting the health and safety needs of students
 - Addressing planning issues for the campus-wide response



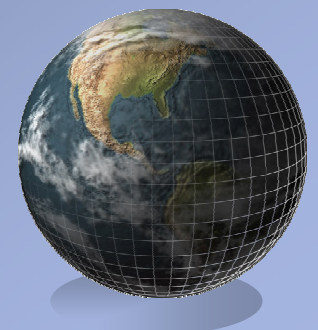
Why plan?

- More effective response to any public health emergency
- Pandemics are a part of human history
- H5NI is endemic in the bird population and shares some of the characteristics of the H1N1 which was responsible for 1918-1920 Pandemic
- There will be little time to act once the event starts



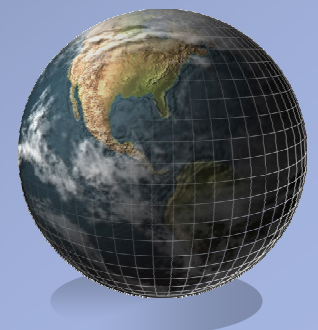
Pandemic Threat

- Condition One
 - Novel virus
- Condition Two
 - Crosses species
 - Humans, pigs, tigers, cats
- Condition Three
 - Efficient, persistent human-to-human transmission
 - Reassortment
 - Mutation



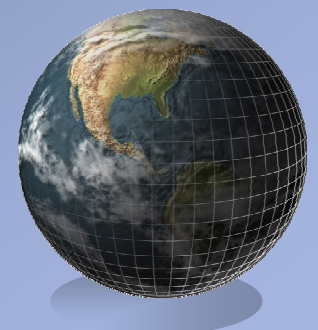
Pandemics

- Ten recorded over past 300 years
 - Range between events 10-49 years, average 24
 - No predictable pattern
- Three in the past century
 - 1957-58 – reassortment event
 - 1967-68 – reassortment event
 - 1918-20 – mutation event with markers similar to those found in birds



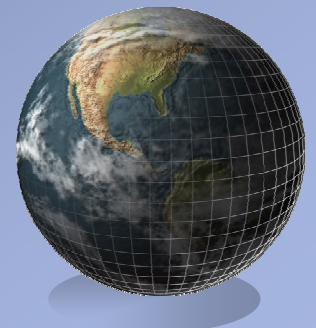
Seasonal vs Pandemic Flu

- Seasonal influenza
 - Peaks usually December thru March in North America
 - 36,000 deaths/200,000 hospitalizations/yr
 - Frail, elderly and very young – U shaped distribution
- Pandemic influenza
 - Rapid, global spread among humans
 - No seasonal preference
 - Comes in waves
 - Total duration a year or more
 - Millions of deaths



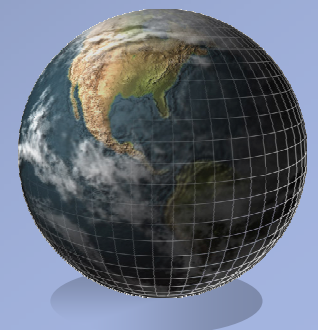
Impact

- Attack rate - 25%-50%
- Sickness rate 4%-12%
 - Normal flu is 5-10%
- Absenteeism
 - 25%-35% for 5-8 days over a 3 month period
- Difficult to impossible to travel
- Disruptions and shortages of fuel, food stuffs, health care



Concerns about H5N1

- Highly pathogenic strain that has persisted in the bird population despite culling of millions of domestic and wild birds.
- New role of migratory birds as an additional, significant source of international infection during 2005
- Crossed species infecting 42 animal species beyond birds including humans
- Limited human-to-human transmission has occurred



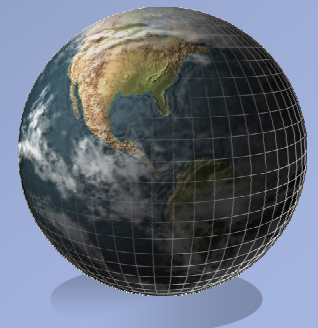
Similarities to 1918

- High mortality rate
 - Appears to have W shaped mortality curve
- Has the same protein tag
 - NS1 protein found in H1N1 and H5N1 only ones alike out of 169 viruses
 - Increased level of tumor necrosis factor alpha assoc with tissue destruction
 - Cascade leading to cytokine storm ->ARD



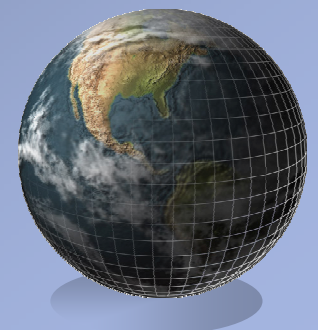
Clinical Features

- Aggressive clinical course with concentration in previously healthy children and young adults
- Current features
 - Virus can survive in environment 6-35 day
 - droplet infection
 - depending on temperature
 - Incubation period in humans ranges from 2-17 days
 - 7 day range current WHO standard for observation



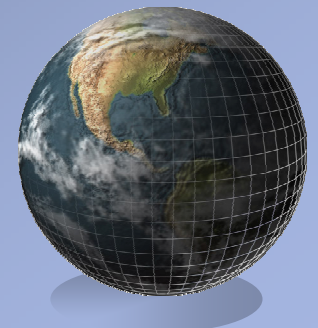
Clinical Features (con't)

- High fever, bodyaches, malaise
- Diarrhea, vomiting and abdominal pain in some cases
- Respiratory distress within 4-13 days of onset
 - Pneumonia consistent feature in severe cases
- Multi-organ failure



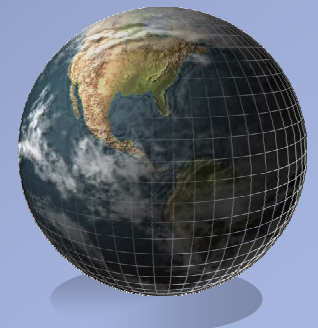
Treatment

- Oseltamivir and Zanamivir
 - Prior to outbreak in Turkey, most patients treated late in disease
 - Early detection with treatment is stressed
 - Recommendations on optimum dosing and duration of treatment continue
 - Expensive, production capacity limited
- Antibiotics
 - Not effective in treating pneumonia



Vaccine

- Clinical trials ongoing
- Adjuvant that allows for effective delivery and adequate immune response using smaller doses of vaccine developed
- New technologies for vaccine development continue to be explored
- Will not be available at the start of pandemic and there will not be sufficient amounts to vaccinate everyone



Goal of Public Health:

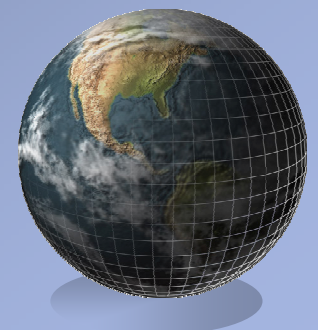
Slow down spread

- Isolation of the sick
- Quarantine of the exposed
- Protective sequestration
 - Isolating a community before illness enters
- Social Distancing
 - Actions taken to discourage close social contact between individuals
- Public education
 - Accurate, clear
 - Consistent with those being given by other public health authorities



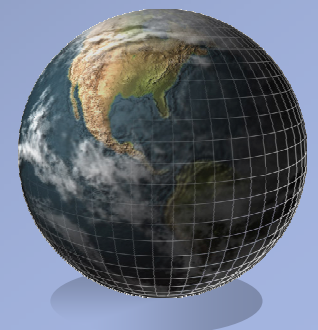
What is the role of the Student Health Service?

- To be knowledgeable about pandemic planning guidelines and recommendations.
- To be an active participant in the campus-wide planning process.
- To develop a detailed plan for Student Health operations.



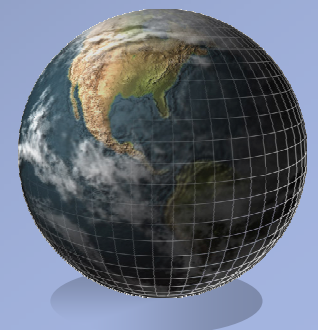
Role con't

- To identify and establish contacts in the local health care community including hospitals, local health departments, emergency response personnel.
- To provide sound medical and public health information to the incident commander, key decision makers and the campus community.



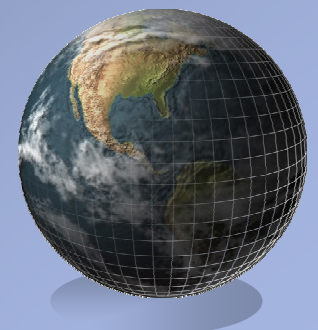
Challenges to Planning

- Requires multi-faceted, multi-departmental effort over time
- Deficits in knowledge
 - No case definition
 - Gaps in our understanding of viruses
 - Gaps in our understanding of which strategies are most effective



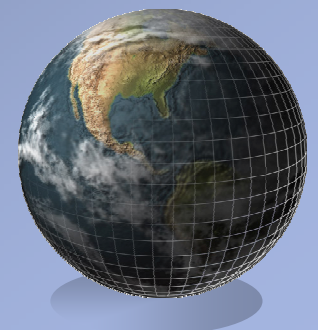
Challenges to Planning

- Considering the what ifs
 - we can't send all students home?
 - we have students who are ill and the local health systems are overwhelmed?
 - we must work with a reduced staff?
- Allocation of resources
 - Stockpile goods? How much?
 - Questions of ethical nature



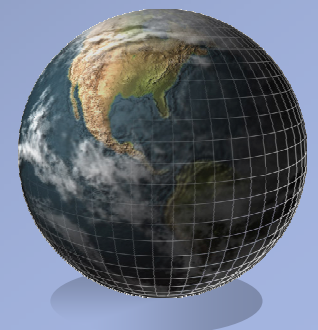
Planning in the Present

- Based on current knowledge and understanding
- Inclusive, collaborative
- Plans must be flexible, adaptable, resilient
- Plans must be tailored to the particular type of institution
- Plans must be tested and rehearsed



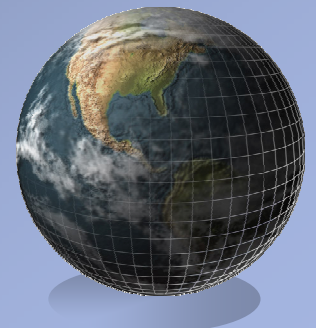
Getting Started

- Who is responsible for emergency preparedness on your campus?
- Does your school have an emergency response plan/template?
- Can it be adapted for pandemic planning?
- Who do you engage in the conversation on your campus to get pandemic planning on the table?



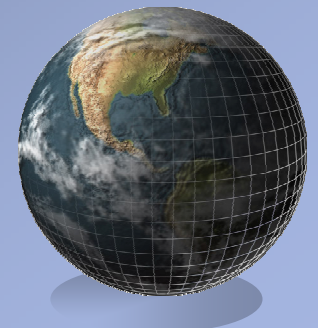
Getting Started con't

- Identify key members of the pandemic planning committee.
 - Depth charting
- Identify essential functions and personnel.
 - Depth charting
- Identify appropriate channels of communication and chain of command.
- Identify the role of student health services.



Pandemic Planning Committee Members

- Executive management (President, Provost, Chancellor or designees)
- Student Health
- Public Safety
- Environmental Health & Safety
- Public Affairs
- Government Relations
- Facilities Management
- Student Affairs (residence life)
- International Student Services
- Housing
- Dining
- Human Resources
- Risk Management
- Telecommunications
- Information Technology
- Operations and Finance



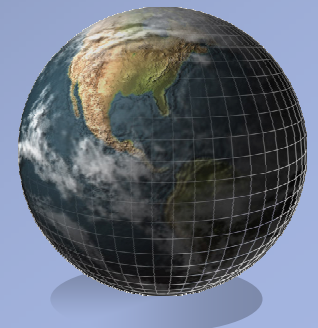
Determine triggers for Moving Plans to Action

- Short window for critical decision making.
- Reducing the number of students on campus may be best strategy.
 - Resources/expectations for care/support
- Once closed...when do you reopen?
 - 8-12 weeks to avoid resurgence of illness
 - Define closing – no classes? No research? Lock down of all buildings?



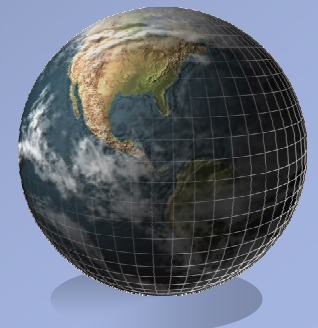
Levels of Emergency Response

- Level One
 - Pre-event planning to first case of human-to-human transmission
- Level Two
 - Suspected/confirmed cases of sustained human-to-human transmission anywhere in the world
- Level Three
 - Suspected/confirmed cases in the United States



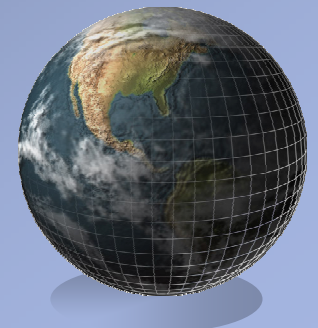
Key Considerations for Student Health Services

- Health Service Staff education and preparation
 - Engage staff in pandemic planning and provide exercises and drills to rehearse plan
 - Provide regular updates for staff on the latest developments
 - Vaccinations
 - Fit testing for N95s
 - inservices on PPE
 - Encourage staff to make personal emergency plans
 - Identify resources for food/on campus shelter



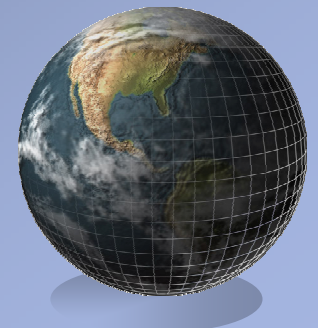
Key Considerations for Student Health Services

- Supplies/equipment/services
 - Compile a list
 - Identify vendors/storage
 - Cost estimate for stockpiling/storage
 - Negative pressure rooms
 - Cleaning services, waste removal



Key Considerations for Student Health Services

- Clinical Issues
 - Consult with HR regarding use of volunteers
 - List of duties, training plan, telephone triage protocols
 - Plans for setting up an infirmary – staffing, location?
 - Protocol for monitoring cases in quarantine
 - Triage and treatment protocols
 - Care of the deceased – morgue/notification of family
 - Plans for mass immunization clinics
 - Clinic signage/voice messages



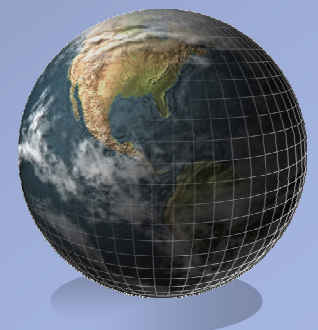
Communications

- Internal
 - Whose in charge?
 - Establish a central reporting plan for monitoring prevalence of illness, absenteeism, # in isolation and quarantine
 - HR, Campus Police, Residence Life
 - Identify all possible means of communicating to various audiences
 - Communication and technology departments
 - Communication capabilities, limitations, testing platforms



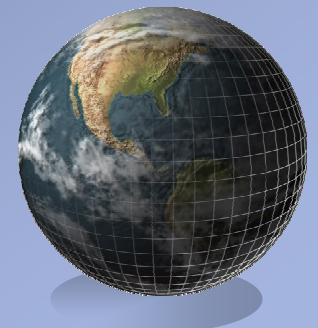
Communications con't

- Provide information to campus community on status of planning, personal emergency preparedness, handwashing
 - Communicate early and often
 - Collaborate with media relations
 - Craft messages in advance
 - Ensure materials are easy to understand and culturally appropriate



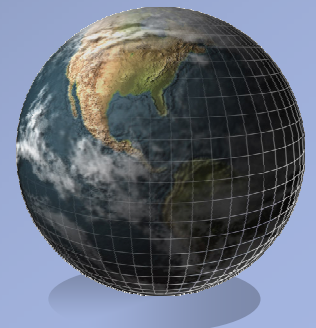
Communications con't

- External
 - Establish and maintain communications with local public health authorities, emergency preparedness groups, hospital systems
 - Identify key contacts
 - Participate in community planning/drills
 - Benchmark activities/planning of other like colleges and universities



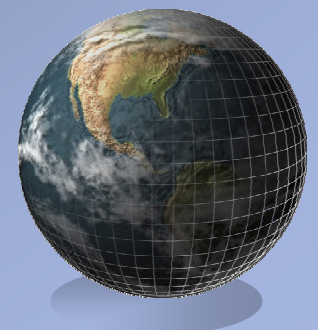
Counseling Services

- Anticipate high need
- 24/7 counseling for staff, faculty, students
- Protocols for providing service via telephone or internet



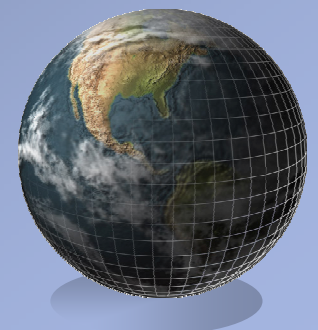
Housing Services

- Identify rooms and buildings that could be used for quarantine, isolation and residence for students who cannot go home
- Develop a procedure for closure and evacuation of residence halls
- Procedures for notifying and relocating students
- Housekeeping staff trained in personal protection and proper cleaning
- Communication protocols between Housing and Residence Life



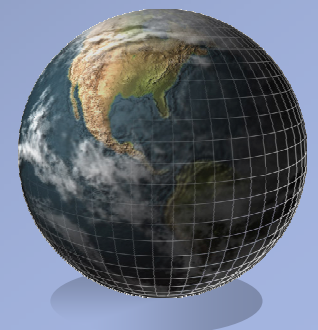
Dining

- Stockpiling and storing non-perishable food stuffs and fluids.
- Procedures for delivery to residential areas.
- Volunteer staff



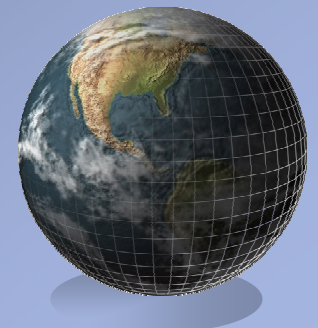
Campus Security

- Procedures for securing buildings, protecting stored supplies
- Communication with local police, fire and emergency response.
- Protocols for transporting sick students.
- Fit for N95s
- Equip cars with disinfectants, gloves etc.



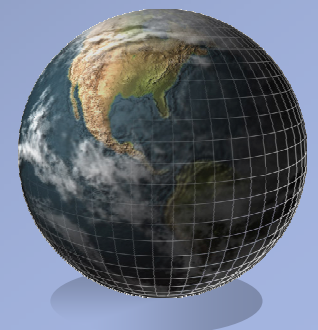
International students and Study Abroad

- Plans for communicating with students abroad.
- Guidelines for closure of study abroad programs.
- Procedures for monitoring student travel.
- Procedures for communicating to international students about travel restrictions and re-entry.



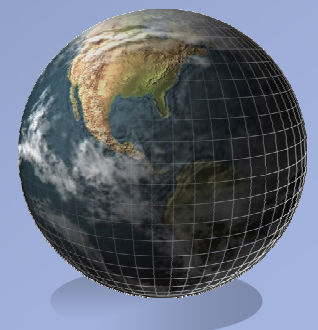
Physical Plant

- Contingency plans in case of fuel, water and energy shortages
 - Emergency generators?
- Building ventilations systems



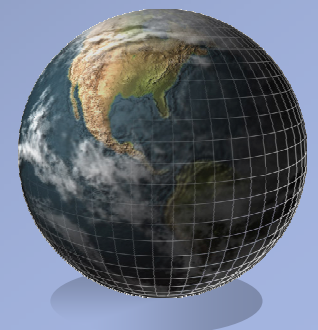
Human Resources

- Identify essential personnel and depth charting.
- Call-off guidelines and vacation/sick leave guidelines.
- Return to work guidelines.
- Work-at-home guidelines.
- Recruitment of volunteers.
- Communications for supervisors and campus work force.



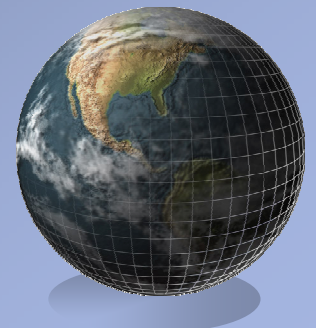
Academic Affairs

- Policies for student absenteeism due to illness/quarantine.
- Alternative procedures for completing course work.



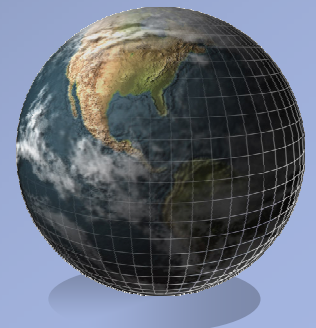
Research

- Can some research continue?
- Plan for maintaining security in labs.
- Plan for care of lab animals.
- Plan for specimen storage and managing experiments in progress.



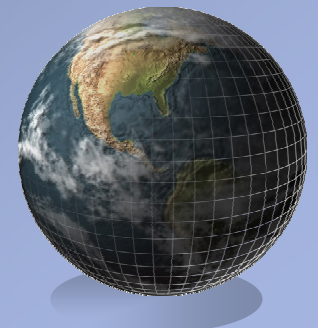
Business and Finance

- Procedures for rapid procurement of goods.
- Continuation of payroll functions.
- Financing and emergency funding issues.



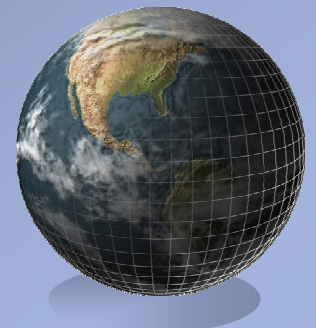
Admissions/Financial Aid

- Plan for reviewing applications and recruiting in absence of face-to-face interviews or campus visits.
- Contingency plans for dealing with financial aid, withdrawal from school, other factors related to tuition and registration.



Recovery

- Criteria for calling an end to the crisis and resuming campus business.
- Communication plan for advising students, staff, faculty of plan to resume business.
- Timeline for restorations of operations.
- Plan to debrief.
- Structure for evaluating the effectiveness of the emergency response.



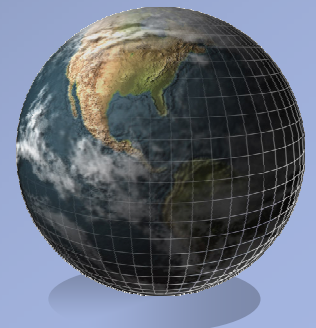
Carnegie Mellon Experience

- Started in October
- Used template for emergency response
- Dealt with health and safety first
- Currently on Version #12
- Had one tabletop with executive decision makers in March
- Currently educating various departments and constituencies.
- Working on business and academic continuity issues.



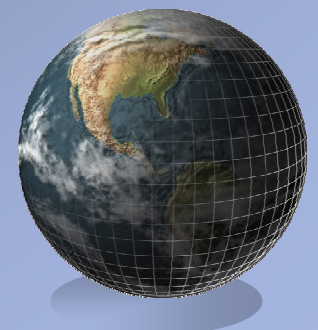
Carnegie Mellon Experience

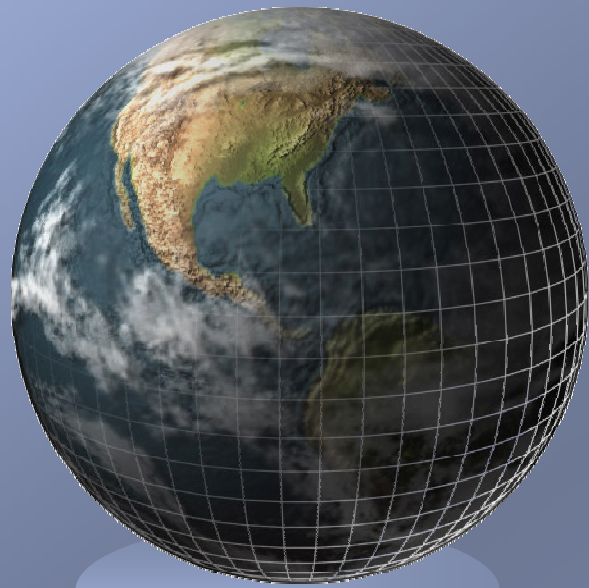
- Communication infrastructure is inadequate to deal with pandemic
- Questions for human resources
 - Compensation for essential personnel
 - Call off policies and procedures
 - Use of volunteers
- Little to no direction from local authorities at this time.



ACHA Guidelines

- Posted on ACHA website for 14 day comment period.
- Resources and B.Board are in place for questions/suggestions.





Q & A