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Pandemic Planning: Preparing Your Campus

Notes from the online roundtable session held Monday, January 28, 2008 at 2:00 p.m. EST. Presenters: Dr. Anita Barkin and John Covely

What is the role of Student Health Directors in university-wide pandemic planning?

- Traditionally, emergency planning has been the responsibility of Public or Environmental Health and Safety, but pandemic planning is a whole new paradigm of planning and requires a different approach because it is a human capital issue, not the typical facility issue as in a fire, tornado or hurricane type of event. Students are at much greater risk then even employees (because of group quarters), so student health directors should be involved at all levels of planning, because nearly every element of planning will impact the risk to students. For a comparison of typical all hazard planning to pandemic planning, see: http://ehs.unc.edu/healthy/docs/emergency_comparisons.pdf

Why in particular could healthy adults be at increased risk?

- It depends on whether the virus that causes a pandemic gains the ability to efficiently transmit through a reassortment event or by mutation. In a reassortment event, a person is coinfected with a novel virus (like H5N1) and a virus that commonly circulates among humans. The viruses exchange genetic material and a new virus emerges. However, when that new virus infects humans, the immune system has some recognition of the virus because of the shared genetic material so the immune response in a healthy adult is appropriate for the level of distress. The 1918 virus was a mutation event; therefore, the genetic makeup was totally unfamiliar (very birdlike) to the human body. Immune systems of young, healthy adults made an exaggerated and highly robust response to the foreign invader. That response led to congestion in the lungs and a cascade of events called cytokine storm. The viral pneumonia and tissue destruction increased the mortality rates in this age group.
- The government's current plan for prioritizing vaccinations may need to be reconsidered to take into account that the virus may have the highest impact on groups that are typically least at risk from seasonal influenza. Visit http://www.pandemicflu.gov/vaccine/prioritization.html to view the plan and submit your feedback.

What should the trigger be for closing down your campus?

- Carnegie Mellon has moved away from talking about opening or closing the campus and started instead to talk about levels of closure, triggers for evacuation and the rationale behind them. Look at your demographics, especially the number of residential students and international students, and guesstimate your burden of care if they all had to stay on campus.
- The recommendation of the Pandemic Planning committee at Carnegie Mellon to Executive Management will be to send students home when the pandemic reaches a major city with an international airport anywhere in the world. Once that happens, it could reach the United States in as little as one day, and at that point, you can't get international students home. However, Carnegie Mellon only plans to completely shut down the campus if the safety of personnel could no longer be assured. These decisions ultimately rest in the hands of Executive Management.
- Many public colleges or universities will have guidance from their state systems. Some systems will determine when those actions will occur and some will leave it up to the individual schools.
- The assumption for closing when an Influenza case is within a geographic range (like an international airport or "in the northeast") is usually based on a 35% attack rate and 2% case fatality rate. But what if the attack rate and mortality rate are different than that? To incorporate different scenarios —and, thus, different and appropriate planning responses— you

may want to include many more triggers: WHO Phases; U.S. Government Stages; Infectivity/Virulence Rate; Morbidity rate; Mortality rate; Infectivity/Virulence, etc. (For a complete listing of possible triggers, see the attached: Decision Points Survey.)
- County health departments will also likely have an impact on your decisions. Because the greatest transmission risk is from young children, most state health departments are planning on closing K-12 early in any pandemic. (In 1918, St. Louis initially had one of the smallest outbreaks, but then re-opened their schools too early and had a large outbreak).

What and how much should be stockpiled?

- 85 schools responded to the ACHA survey on stockpiling. Of those 85, 61.6 percent said they've stockpiled. Top of the list of stockpiled items were respiratory protection, followed by gloves, then food and water, anti-viral meds and general supplies.
- Rather than not touching the stockpiled items until there is a pandemic, and then having the problem of supplies having expired, use the items in your stockpile and then replenish with fresh supplies.
- CDC provides a FluAid calculator on its Web site here: http://www.cdc.gov/flu/pandemic/preparednesstools.htm that can help you estimate the impact on your campus. You can insert your populations (employees, students, students in campus housing, etc.), and it will give you the anticipated morbidity rate, deaths, hospitalizations, outpatient numbers, etc. This may help with assumptions from which to calculate supply needs.
- Carnegie Mellon used a list of assumptions based on the Princeton University model for calculating supply needs. See attached.

What's the best way to get leadership on board with the importance of pandemic planning – and the importance of providing some budget?

- The historical argument is probably the most compelling. There have always been pandemics. If you look at the last century, there were three in a hundred years. We don't know whether the next pandemic will be on the scale of the 1918 outbreak, but we do know we're overdue for one.
- Pandemic planning is another aspect of emergency preparedness, just like a campus disturbance, or natural or man-made disaster, Given the many new risks to campus populations from communicable diseases, (Tuberculosis, MRSA, etc), planning for a pandemic will have great value for any communicable disease. In addition, most administrative or academic departments have had no experience with emergency planning. Having them plan for a pandemic helps them understand how to plan for emergencies and educates them about the necessity for emergency preparedness, and thus will have benefits far beyond just pandemic planning.
- You may have to modify your stockpiling wish list to get leadership on board. Select the most critical things - and the hardest items to get - and just ask for the budget for that. You could also make a case for a broader use of materials; for example, the respiratory protection you could use in a number of situations, not just in the event of a pandemic.
- Getting buy in from others is largely about education. Appoint someone on your pandemic planning committee to develop a campus wide education program about H5N1 and other influenzas, and institute the education campaign while you are in the planning process. Such a campaign should also include information about home emergency planning that will be of benefit to employees and students for any emergency.

Will there be any waiving of fit testing as N-95 respirators have now been approved for public purchase?

- There is no mention of waiving fit testing in the FDA news release about the N-95 respirators: http://www.fda.gov/bbs/topics/NEWS/2007/NEW01630.html
- Limitations for fit testing for schools may be financial.
- It is still up for debate whether OSHA will drop fit testing requirements during a pandemic.
- OSHA's current guidelines on fit testing can be found here : http://www.osha.gov/SLTC/etools/respiratory/oshafiles/fittesting1.html
- In the panelists' experience, fit testing has been very manageable (for instance, fit-testing for a group of 12 at Carnegie Mellon took 15 minutes).

How do you test plans using tabletop exercises?

- Use a tabletop before you begin your planning as an educational tool that will inform your planning effort. Have the various departments sit together and function as a department in providing responses during the discussion period at the end of the modules.
- If you have a plan in place, then set up a role playing exercise — for example, managing a phone call from a student complaining of symptoms versus a visit to the appointment nurse. What education would be given, how would the patient be triaged through the system?
- There are tabletop plans available online that you can use, including one from the University of North Carolina written by our panelist John Covely. It can be found at: http://www.cshema.org/resources/UNC_System_Pandemic_Influenza_Tabletop_Exercise.doc
  Other tabletops for universities can be found on the CSHEMA website at: http://www.cshema.org/resources/pandemic.cfm
  The Rand Corporation also has a tabletop at: http://www.rand.org/pubs/technical_reports/2006/RAND_TR319.pdf

We haven't started our plan yet – should we try and have it finished by the end of the year?

- You probably can't complete your whole plan within a year. However, you should develop a continuity of operations plan first and work on the rest after that.
- The process of planning is so informative that having a full plan is not immediately necessary if you begin to initiate your planning as you develop it. Planning for your essential departments should include more than an outlined list of responsibilities. Develop a continuity of operations plan for the essential departments that first includes your assumptions for your plan. If you begin with the wrong assumptions your plan will not be effective. You can find many of these assumptions in the U.S. Government's Pandemic Plan at: http://www.pandemicflu.gov/plan/pandplan.html
- Additional assumptions and a structure for developing them can be found in the University of North Carolina assumptions, at: http://ehs.unc.edu/healthy/docs/assumptions.pdf
- Carnegie Mellon quickly abandoned the idea of "essential personnel". Instead, they created the idea of "essential functions" – if something happens to the person who performs that function, who's next in line? And then who?
- Then include the following in your plan: your Departmental objectives during a pandemic, Emergency Communications Methods, Emergency Access to Information and Systems, Essential Functions (with a list of personnel and alternate personnel), Leadership Succession, Internal Dependencies, External Dependencies, and Mitigation Strategies.
- The three most important elements in your emergency planning will be: Trigger points for suspending classes, identification of emergency functions and personnel, and the definition of closure. The University of North Carolina at Chapel Hill and the SUNY system schools have a tiered system of social distancing and closure that parallels the World Health Organization Phases and the U.S. Government Stages.
- Business continuity planning is helpful in many crises – anything from a Virginia Tech situation to a natural disaster.

Other sources of information:

- **Nuesoft Xpress**: An overview of tackling pandemic planning, with contributions from Anita Barkin and John Covely, can be found at http://www.nuesoftxpress.com/newsletter/2007/fall/page_03_pandemic_flu.html
- **ACHA** provides a list of useful resources: http://www.acha.org/info_resources/pandemic_flu.cfm
- **The Department of Health and Human Services** has a Web site dedicated to pandemic flu with a wealth of useful information: http://www.pandemicflu.gov/
- **John Covely** is a pandemic planning consultant. He has facilitated numerous pandemic tabletops, and has consulted for Vanderbilt University, the University of North Carolina, the University of North Carolina System, SUNY Oneonta, SUNY Geneseo, and SUNY Purchase. His website is http://www.johncovely.com. He can be reached at jc@johncovely.com, or at (919) 923-3583