

# Pandemic Preparedness on Campus

Uwe Reischl  
Vincent Serio  
Conrad Colby  
Komal Mehrotra

**M**any institutions of higher learning actively promote programs that bring foreign students and scholars to their campuses. These institutions also encourage their own students, faculty, and staff to travel internationally in order to foster professional growth and advancement. University campus populations, especially those located in smaller communities can represent significant proportions of the total population of a community and may influence the dynamics and progression of an epidemic. Therefore, it is important that community emergency response plans include their local campuses.

Disease epidemics have caused more deaths throughout the millennia than all the death resulting from war. Continued global population growth and worldwide ecological degradation are creating conditions that promote the emergence and spread of new diseases. It is becoming obvious that the ability of microbes to adapt and overcome our traditional defenses, coupled with changes in society, technology, and the environment, can lead to global epidemics reminiscent of the worst in history. In addition, terrorists with some basic knowledge of molecular biology and available funding to produce weapons of mass destruction can wage biological warfare on cities, regions, and even the entire planet. It is important that we begin developing systematic, community-based, response strategies and emergency preparedness plans that will allow us to counteract such dangers in a well thought-out, timely, and effective manner.

## Potential for infection on campus

In general, current community plans pay special attention to events normally associated with industrial or commercial accidents or natural disasters such as earthquakes, floods, wildfires, hurricanes, tornadoes, and severe weather conditions. The probability of major disease epidemics has always been considered somewhat remote. However, with threats of bioterrorism and the recent international experience involving severe acute respiratory syndrome (SARS), community emergency plans are beginning to address regional epidemics as well as global pandemics.

The role of universities in potentially "importing" pathogenic disease agents from different parts of the world through students, faculty, or staff traveling abroad is not widely appreciated or understood. As a result, academic institutions are often, unintentionally, excluded from matters of community planning.

The risk of transmission and subsequent propagation of a virulent microorganism to a significant portion of the campus population during an influenza epidemic, SARS outbreaks, or a bioterrorist attack will be high because of potentially close interaction among students and faculty in a broad spectrum of classroom and instructional settings, contact in food service areas, and poor hygiene habits in toilet facilities. Therefore, university campuses may serve as important points of introduction of diseases transferred by persons returning from domestic as well as international travel. Not only can these students infect their classmates or colleagues but they can take the disease agents home to their families and to the community at large.

Foreign students and scholars are likely to visit their home countries during vacations, or have friends and relatives visit them during the normal academic year. These dynamics further increase the likelihood for importing potential disease agents and should, therefore, be specifically addressed in the emergency preparedness planning process.

## Campus preparedness

In 2003, the American College Health Association (ACHA) Vaccine-Preventable Diseases Task Force developed guidelines to prepare universities for a SARS pandemic. The task force recommended that universities:

1. Establish a multidisciplinary emergency response team including student health services, upper management such as the provost, vice presidents, and deans, mental health professionals, and representatives from local and state health departments. The emergency response team should be responsible for developing the internal and external communication protocols that will allow members of the response team to communicate during an emergency with each other and with other organizations on and off campus. Also, the team should be responsible for identifying facilities that could be used for screening infected persons and identifying where stockpiles of appropriate personal protective equipment would be needed.

2. Establish an additional university-wide workgroup that would include representatives from units such as international studies, housing office, food services, human resources department, representatives from the local police department, and additional academic deans. The workgroup would address issues related to quarantine and isolation procedures and policies, student insurance

and support matters, and many of the other challenges associated with the management of a campus disease epidemic. The workgroup should also be assigned the responsibility of formulating campus policies regarding electronic, phone, and written communications within the campus, the community, and the news media.

3. Address policy issues related to hosting visitors to campus from SARS-affected regions as well as to travel of university students, faculty, or staff to SARS-affected countries.

### Strategies for preparing

Effective and timely decision making during emergency events is usually hierarchical and centralized. Emergency preparedness plans try to delineate the most effective and most appropriate channels of communication and subsequent lines of responsibility (authority). The disease epidemic preparedness planning process at the universities and colleges should integrate these principles.

1. University policies and procedures designed to protect the well-being of a campus and requiring significant staff resources and financial support are usually initiated and promoted by the president's office of a university.

A disease epidemic or an act of bioterrorism adversely affecting the lives of students, staff, or faculty, has major legal, administrative, political, and financial implications for the institution. During emergencies, task forces and committees are generally not in a position to make decisions effectively and are often slow in reaching consensus, especially on complex matters. Task forces are excellent in providing recommendations and advice. However, the responsibility for making decisions during an emergency must rest with the chief executive officer.

2. Campus disease surveillance activities must occur quickly and should be carried out in a participatory manner. Whenever possible, collection of health-related data should include students, faculty, and staff. It is important that timely information be available on an ongoing basis to allow the university to evaluate the effect, if any, that a specific intervention activity might have on the progression of the disease on campus.

Teaching faculty could report health conditions within their classrooms in terms of student attendance. Simple Web-based surveys would allow ongoing updates of absenteeism. Each campus could establish "standard" (non-epidemic) attendance rates. This would be similar to the approach used by primary and secondary schools in monitoring student attendance on a daily basis.

3. University facilities and staff should be seen as potential resources when responding to a disease epidemic within a community. Especially on campuses with health science programs, faculty and staff could assist in data collection and monitoring, students could assume leadership in community surveillance activities, and health departments could utilize campus laboratory equipment and facilities in support of their work.

### Recommendations

The guidelines and recommendations provided by ACHA are consistent with current public health preparedness planning practices. However, it is important to recognize that management and academic staff at most college and university campuses are not familiar with the principles of epidemic preparedness planning. Committees and task groups established for the purpose of developing emergency response plans would probably not be able to carry out their assignments. Additionally, university presidents generally do not have experience in managing such events. Therefore, we recommend that training be provided for the university administration and faculty as part of an epidemic preparedness planning process not only for use on campuses but also for local communities.

With the certainty that major disease epidemics will occur in the near future, communities are obligated to develop plans that will allow them to respond effectively. Departments of public health have traditionally taken the leadership role in coordinating such planning activities. However, college and university campuses have usually not been considered integral components of that planning process. Given the relatively large populations that many campuses represent to a community, we recom-

### Annual influenza outbreaks could be used for training purposes, allowing colleges and universities to establish campus-wide flu information dissemination strategies.

mend that college and university campuses be considered essential components of any community epidemic emergency response plan.

We recommend that university presidents and chancellors assume the leadership role in promoting and developing disease epidemic preparedness plans for their campuses and subsequently be ready to coordinate activities with the local and regional public health agencies during an epidemic. Annual influenza outbreaks could be used for training purposes, allowing colleges and universities to establish campus-wide flu information dissemination strategies, to test ways of including students, faculty, and staff in data collection activities, and to allow the administration to become knowledgeable about the dynamics of disease epidemics and subsequent management strategies. ■

#### Authors

Uwe Reischl, PhD, MD, is director of the Center for Health Policy; Vincent Serio, MD, is director of Medical Services, Student Health, Wellness and Counseling Services; Conrad Colby, PhD, is professor emeritus and a scholar with the Center for Health Policy; and Komal Mehrotra, is a graduate research assistant with the Center for Health Policy. All are at Boise State University in Boise, Idaho.

#### Reference

*Guidelines for Preparing the University for SARS.* ACHA Vaccine-Preventable Disease Task Force, July 6, 2004. American College Health Association, [www.acha.org/Sars\\_Guidelines.pdf](http://www.acha.org/Sars_Guidelines.pdf).