



# A STANDARDIZED PATIENT PUBLIC HEALTH SIMULATION FOR IMPROVING PANDEMIC AVIAN INFLUENZA PREPAREDNESS

John F. Mahoney, Joe Suyama, Valerie L. Fulmer, Francis X. Guyette, Samuel Stebbins  
 University of Pittsburgh School of Medicine and Graduate School of Public Health

## BACKGROUND

- With the growing threat of an influenza pandemic, the medical and public health communities are accelerating plans to prepare for a potentially severe population impact.
- Improving public health preparedness and preparing to cope with a pandemic depends on functioning in symbiosis with all elements of the healthcare team, including the public health community.

## PURPOSE

- This one-day program for beginning 3<sup>rd</sup> year medical students was designed to:
  - Increase students' understanding of the multidimensional nature of pandemic response.
  - Provide specific content information and experience relevant to preparing for an influenza pandemic.
- Standardized patient (SP) encounters provided practical experiences with epidemiologic interviewing, stimulated student interest, and added a dimension of reality to the problems associated with public health aspects of response to an infectious outbreak.

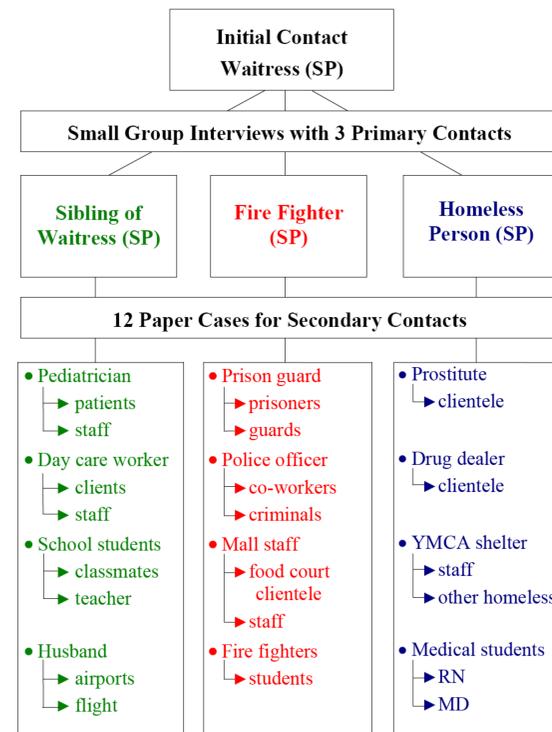
## METHOD

- The overall module construct was comparable to other simulation-based curriculum units.
- The module began with core lectures on disaster medicine, the current pandemic threat and state of preparedness, and information on the role of public health in outbreak response.
- The beginning 3<sup>rd</sup> year students were divided into 40-student groups for this practical exercise.

## METHOD

- Students learned about the complexities of case tracking in an outbreak by performing interviews with SPs and by accessing other virtual patient records.
- Through successive layers of epidemiologic interviews with SPs, students located infection sources and individuals at risk for contracting the disease, and details of the spread of disease were revealed.

### CASES AND CONTACTS



- SPs portrayed diverse roles, including waitress, firefighter, and homeless person.
- After initial layers of SP interviews, students followed the trail further by accessing virtual patients through written case histories.

## METHOD

- 1 initial contact SP and 3 primary contact SPs were supplemented with 12 secondary contacts (paper patients) that were encountered as students visited virtual homes and businesses distributed throughout the medical school hallways in a simulated community.
  - Use of paper patients reduced the need for SPs and made the simulation possible within the available time, logistics, and budget, without apparent negative impact on student learning.
- Students were supervised by medical and public health leaders who serve in key roles in actual emergencies.
- A debriefing with the county health director gave findings a real world focus and allowed questions stimulated by the exercise to be answered.

### Session organization and timing

- 15 minutes — Lecture on epidemiology & simulation scenario
- 15 minutes — Initial contact case interview in large groups
- 1 hour — Case interview of primary contacts in groups of 6-7 students; student pairs investigate paper cases
- 15 minutes — Debriefing



## RESULTS

- Students quickly embraced the scenario and participated with energy and enthusiasm.
- They valued the hands-on nature of the simulation.
- The simulation was well received and highly rated on student evaluations and comments.
- In debriefings, students indicated that they had improved knowledge about pandemic influenza and about the difficulties associated with defining the spread of the disease in the community.
- Medical students gained appreciation for the essential role of public health personnel in pandemic response in a manner that cannot easily be replicated in everyday experiences.

## CONCLUSIONS

- This all-new pandemic simulation provided a unique venue for students to learn about pandemic influenza threat and preparedness.
- Medical students gained appreciation of the critical role of public health personnel in pandemic response and of the importance of functioning in close conjunction with the public health community.
- This type of exercise can be readily generalized to other circumstances and health disciplines, and exported to other institutions.

For additional information:  
 mahoney@medschool.pitt.edu  
 412-648-8714