Pandemics and Emerging Infectious Diseases
Mini-Elective
Spring 2010

Course Dates: February 4, 11, 18, 25
Thursdays, 1:00—3:00 PM

Maximum Students: 8

Class Year: MS1

Course Director: Samuel Stebbins, MD, MPH
Director, University of Pittsburgh Center for Public Health Preparedness

Contact Information: Samuel Stebbins, MD, MPH
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Description:
This four-session mini-elective will introduce medical students to new microbial threats and the role of physicians in preparing for and responding to outbreaks and health emergencies. The course will cover a range of topics including:
• Emerging Infectious Diseases
• Pandemics (including lessons learned from H1N1)
• Global Climate Change
• Simulated outbreaks and response
• Medical and Public Health preparedness at local, state, national and international levels
• Personal Protective Equipment – how protective is it anyway?

Objectives:
• Explore interactions between human and animal microbiology and the zoonoses which result
• Find out how climate change and global warming are changing infectious diseases around the world
• Improve understanding of infection control and personal protection.
• Explore uses of agent-based simulation to predict and describe outbreaks.
• Experience how physicians, emergency response officials and public health professionals interact in preparing for and responding to outbreaks and pandemics.

Requirements:
1. Actively participate in all 4 course sessions
2. Read assignments
3. Evaluate the course at the end of the last class
Course Outline:

Emerging Infectious Diseases

Course Director:
Samuel Stebbins, MD, MPH
Director, University of Pittsburgh Center for Public Health Preparedness

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Location:
All sessions
Center for Public Health Practice
Room A731, Crabtree Hall
130 DeSoto St – Graduate School of Public Health

Course Outline:

Week One–February 4, 2010
• Microbes, insects, animals and people
• New pathogens
• Existing pathogens in new settings and/or with new resistance factors

Week Two–February 11, 2010
• Pandemics – H1N1 and others
• Where do they come from, how do they behave, and where do they go

Week Three–February 18, 2010
• Local, national and international surveillance systems
• Computational modeling
• Effectiveness of medications, vaccines, and non-pharmaceutical interventions

Week Four–February 25, 2010
• Infection control in hospitals and other healthcare settings
• Personal and community preparedness

Texts:
• Reading materials will be e-mailed to students prior to each class.