

URBANIZATION UNIT

Partners with Howard Frumkin's Lecture, *Healthy and Sustainable Communities*
Lecture Given at Harvard Medical School on April 11, 2007

Link to Lecture Video and Background Reading

http://chge.med.harvard.edu/programs/education/course_2007/topics/04_11/index.html

Lecture Summary

Humans have lived in villages, then towns, then cities, for 10,000 years. Urbanization has advanced to the point that half the human population lives in cities, and the city can be considered the typical human ecosystem. In this class session we'll examine the concept of urbanization from several perspectives. First, we'll define "city" and "urbanization," and look at some data on global urbanization trends. Next, we'll consider the environmental impacts of cities, using the "ecological footprint" concept. We'll then move from environmental impacts to human health impacts, and discuss how the structure and function of a city—or of any place, really—may affect human health. (In the context of medical geography this is a straightforward notion, but in the context of environmental health, it's surprisingly unconventional.) Finally, we'll examine the prototypical city of the petroleum era, the sprawling megalopolis, and we'll analyze its health implications in detail.

Key Vocabulary Words for the Urbanization Lecture

1. Behavioral Risk Factor Surveillance System
2. commuting stress
3. land use patterns
4. mobile source of pollution
5. non-point source of pollution
6. point source of pollution
7. smart growth
8. social capital
9. urban heat island effect
10. urban sprawl

Questions to Address During the Urbanization Lecture

1. Currently, one out of every two Americans lives in the suburbs—a major shift that has occurred during the last century. What are some of the health implications that might be linked to this demographic shift?
2. What are some of the possible connections between increased sprawl and decreased social capital?
3. How could some of the solutions outlined by Howard Frumkin be applied in your city or town? Be practical and specific about the process and results.

Activity: Improving Your Community

Create a map of your city or town, and work with students to assess the success of urban planning, transportation, and other services in the community. Note public transportation routes on the map and note whether they run frequently enough to be useful, as well as looking at the location of schools, stores, parks, libraries, and other important community resources. Are they

easily accessible from residential areas? After this discussion, conduct a brief and informal survey by having students raise their hands in response to questions. How do students get to school? Do they walk? Do they drive? Do they take a bus? Where do they buy food? Rent videos? How much time do they spend in a car each day? After this survey, discuss ways and models that the community could be improved. Have the class create a comprehensive report, and send it to the local mayor or selectmen for presentation at a town meeting.

Background Reading

Frumkin, Howard. "Urban Sprawl and Public Health." *Public Health Reports*, v.112 (2002), pp.201-217.

This reading may be found free-of-charge on the Center for Health and the Global Environment's website at:

http://chge.med.harvard.edu/programs/education/secondary/hhgec/documents/urban_sprawl.pdf

This lesson plan was created by the Center for Health and the Global Environment at Harvard Medical School. Should you have any questions about its content, please feel free to contact Margaret Thomsen, Program Coordinator. She may be reached by telephone at 617-384-8533, or by email at margaret_thomsen@hms.harvard.edu.