

5 January 2015

Winter Quarter 2015
University of Washington

EnvH 538: Public Health and Built Environment

Dept. of Environmental and Occupational Health Sciences, UW School of Public Health

UrbDP 538: Public Health and Built Environment/Healthy Community Design

Dept. of Urban Design and Planning, UW College of Built Environments

EnvH 538 and UrbDP 538 are taught concurrently.

Instructors

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Class sessions: Thursdays, 5:00pm – 6:50pm, January 8 to March 12, 2014

Location: UW College of Built Environments, Gould Hall, Room 435

Course Description

This interdisciplinary course focuses on the increasing recognition that the design of communities can impact human health, especially among vulnerable populations. Community designs that feature parks, sidewalks, trails, public transit, and connectivity among destinations can encourage physical activity, help prevent obesity and its associated health consequences, and reduce dependence on automobiles whose use contributes to air pollution, motor vehicle crashes, and pedestrian injuries. Increased attention to the health implications of the built environment has led to various innovative solutions, such as mixed-use Smart Growth developments, investments in bicycling and pedestrian infrastructure, and the use of health impact assessments to convey health information to community decision-makers.

Course Learning Objectives

At the conclusion of the course, students should be able to:

- Explain how the built environment impacts public health both positively and negatively
- Critique the literature regarding health and built environment including its strengths and weaknesses
- Describe the methods used to assess the built environment and its impact on health
- Describe the options available to promote healthy community design decisions
- Summarize the benefits of and barriers to working in an interdisciplinary environment

Student Evaluation

- Class participation 15%
- Street and park audit 20%
- 3-5 page paper on research topic 20%
- Two minute oral testimony 15%
- Written reflections on readings 30%

Access and Accommodations

Your experience in this class is important to us, and it is the policy and practice of the University of Washington (UW) to create inclusive and accessible learning environments consistent with federal and state law. If you experience barriers based on a disability or temporary health condition, please seek a meeting with DRS (Disability Resources for Students) to discuss and address them. If you have already established accommodations with DRS, please communicate your approved accommodations to your instructor so we can discuss your needs in this course. DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and DRS. If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (this can include but not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DRS at 206-543-8924 or uwdrs@uw.edu or disability.uw.edu

Academic Integrity

Students at UW are expected to maintain the highest standards of academic conduct, professional honesty, and personal integrity. UW is committed to upholding standards of academic integrity consistent with the academic and professional communities of which it is a part. Plagiarism, cheating, and other misconduct are serious violations of the UW Student Conduct Code (WAC 478-120). We expect you to know and follow the university's policies on cheating and plagiarism, and the [SPH Academic Integrity Policy](#). Any suspected cases of academic misconduct will be handled according to UW regulations. For more information, see the UW Community Standards and Student Conduct website.

Class Schedule and Readings

Textbook: *Making Healthy Places: Designing and Building for Health, Well-Being, and Sustainability*. Andrew Dannenberg, Howard Frumkin, Richard Jackson. Island Press, 2011. (abbreviated as MHP). Details about the book are available at: www.makinghealthyplaces.org

Other readings are provided on Canvas Share Space.

January 8: Introduction

- MHP Preface Richard Jackson
- MHP Chapter 1. Introduction to healthy places
 Howard Frumkin, Arthur Wendel, Robin Abrams, Emil Malizia
- Peterson J. The impact of sanitary reform upon American urban planning, 1840–1990.
 Journal of Social History. 1979;13:83–103.
- Malizia EE. City and regional planning: a primer for public health officials. *American Journal of Health Promotion*. 2005;19(5S):1–13.

January 15: Physical activity and food environment

Guest speaker: Brian Saelens, PhD, Professor of Pediatrics and of Psychiatry and Behavioral Sciences, UW, brian.saelens@seattlechildrens.org; 5:00-6:00 pm

MHP Chapter 2. Community design for physical activity

James Sallis, Rachel Millstein, Jordan Carlson

MHP Chapter 3. Food environments

Carolyn Cannuscio, Karen Glanz

Blanck HM, Allen D, Bashir Z, Gordon N, Goodman A, Merriam D, Rutt C. Let's go to the park today: the role of parks in obesity prevention and improving the public's health. *Childhood Obesity*. 2012; 8(5):423-428.

Pucher J, Dijkstra L. Promoting safe walking and cycling to improve public health: lessons from the Netherlands and Germany. *American Journal of Public Health*. 2003; 93:1509-1516.

Silberfarb LO, Savre S, Geber G. An approach to assessing multicity implementation of healthful food access policy, systems, and environmental changes. *Preventing Chronic Disease*. 2014;11:E64.

http://www.cdc.gov/pcd/issues/2014/pdf/13_0233.pdf

Optional activity: The Built Environment Assessment Training Institute (BEAT) offers two free online training courses related to the built environment: (a) Assessing the Built Environment for Physical Activity, and (b) Assessing the Nutrition Environment. Total time: approximately 4 hours.

<http://www.med.upenn.edu/beat/onlinetraining.shtml>

January 22: Air quality, injuries, and water quality

MHP Chapter 4. Community design and air quality

Jonathan Samet

MHP Chapter 5. Injuries and the built environment

David Sleet, Rebecca Naumann, Rose Anne Rudd

MHP Chapter 6. Community design for water quantity and quality

Lorraine Backer

Friedman MS, Powell KE, Hutwagner L, Graham LM, Teague WG. Impact of changes in transportation and commuting behaviors during the 1996 summer Olympic Games in Atlanta on air quality and childhood asthma. *JAMA* 2001;285:897-905.

Lusk AC, Morency P, Miranda-Moreno LF, Willett WC, Dennerlein JT. Bicycle guidelines and crash rates on cycle tracks in the United States. *American Journal of Public Health*. 2013;103:1240-1248.

January 29: Mental health, social capital, healthy workplaces, and behavioral choices **READING REFLECTIONS FOR WEEKS 1 TO 4 DUE**

Guest speaker: Judith Heerwagen, PhD, Environmental psychologist, Office of Federal High Performance Green Buildings, US General Services Administration; Judith.heerwagen@gsa.gov; 5:00-6:00 pm

MHP Chapter 7. Mental health and the built environment

William Sullivan, Chun-Yen Chang

MHP Chapter 8. Social capital and community design

Caitlin Eicher, Ichiro Kawachi

MHP Chapter 12. Healthy workplaces

Donna Heidel, L. Casey Chosewood, Matthew Gillen, Paul Schulte, Greg Wagner, Kenneth Wallingford, Liz York

- MHP Chapter 17. Behavioral choices and the built environment
Margaret Schneider
- Soler RE, Leeks KD, Buchanan LR, et al. Point-of-decision prompts to increase stair use: a systematic review update. *American Journal of Preventive Medicine*. 2010; 38(2S):292-300.
- Dowda M, Brown WH, McIver KL, Pfeiffer KA, O'Neil JR, Addy CL, Pate R. Policies and characteristics of the preschool environment and physical activity of young children. *Pediatrics*. 2009; 123:e261-266.

**February 5: Healthy homes and vulnerable populations
STREET AND PARK AUDIT DUE**

Guest speakers: James Krieger, MD, MPH, Executive Director, Action for Healthy Food, jkrieger@actionforhealthyfood.org; and Nicole Thomsen, REHS, Environmental Public Health Planner, Public Health – Seattle & King County, Nicole.Thomsen@kingcounty.gov; 6:00-6:50 pm

MHP Chapter 9. Vulnerable populations and the built environment
Chris Kochtitzky

MHP Chapter 11. Healthy homes
James Krieger, David Jacobs

Aboelata M. Evergreen Cemetery Jogging Path, Boyle Heights CA. From *Built Environment and Health: 11 Profiles of Neighborhood Transformation*. Prevention Institute, Oakland CA, 2004.

<http://www.preventioninstitute.org/component/jlibrary/article/id-114/127.html?tmpl=component&print=1>

CDC Blood lead levels – United States, 1999-2002. *MMWR Morbidity and Mortality Weekly Report*. 2005; 54(20):513-516.

International City/County Management Association (ICMA). Active living for older adults: management strategies for healthy and livable communities. 2003. E-43140. bookstore.icma.org.

Takaro TK, Krieger J, Song L, Sharify D, Beaudet N. The Breathe Easy Home: The impact of asthma-friendly home construction on clinical outcomes and trigger exposure. *American Journal of Public Health*. 2010; 101:55-62.

February 12: Land use and transportation

Guest speaker: Mark Hallenbeck, Director, Washington State Transportation Center; tracmark@uw.edu

MHP Chapter 10. Transportation and land use
Reid Ewing, Gail Meakins, Grace Bjarnson, Holly Hilton

Talen E, Knaap GJ. Legalizing smart growth: An empirical study of land use regulation in Illinois, *Journal of Planning Education and Research*. 2003; 22:345-359.

Dumbaugh E, Rae R. Safe urban form: Revisiting the relationship between community design and traffic safety, *Journal of the American Planning Association*. 2009; 75(3):309-329.

Besser M, Dannenberg AL. Walking to public transit: steps to help meet physical activity recommendations. *American Journal of Preventive Medicine*. 2005; 29:273-280.

Gotschi T. Costs and benefits of bicycling investments in Portland, Oregon. *Journal of Physical Activity and Health*. 2011; 8 Suppl 1:S49-S58

February 19: Healthy schools and health care settings, and community resilience
Guest speakers: Special local health department panel on healthy community design

Amy Pow, MCIP, Principal Planner, Built Environment Program, Tacoma-Pierce County Health Department, apow@tpchd.org

Danielle Schaeffner, MPH, Environmental Health Specialist, Healthy Communities/Chronic Disease Prevention, Kitsap Public Health District, Bremerton, Danielle.Schaeffner@kitsappublichealth.org

Julie West, MPH, Program Manager, Healthy Community Planning, Environmental Health Services Division, Public Health – Seattle & King County, Julie.West@kingcounty.gov

MHP Chapter 13. Healthy health care settings
Craig Zimring, Jennifer DuBose

MHP Chapter 14. Healthy schools
Howard Frumkin, Jared Fox

MHP Chapter 16. Resiliency to disasters
Timothy Beatley

McDonald NC, Yang Y, Abbott SM, Bullock AN. Impact of the Safe Routes to School program on walking and biking: Eugene, Oregon study. *Transport Policy*. 2013; 29:243–248.

Younger M, Morrow-Almeida HR, Vindigni SM, Dannenberg AL. The built environment, climate change, and health: opportunities for co-benefits. *American Journal of Preventive Medicine*. 2008; 35:517–526.

February 26: Policy, community engagement, and developing countries
RESEARCH PROJECT PAPERS DUE

Guest speakers: Dan Burden, Director of Innovation & Inspiration, and **Samantha Thomas**, Built Environment Manager, Blue Zones, LLC;
dan.burden@bluezones.com; samantha@bluezones.com

MHP Chapter 18. Policy and legislation for healthy places
Lisa Feldstein

MHP Chapter 19. Community engagement in design and planning
Manal Aboelata, Leah Ersoylu, Larry Cohen

MHP Chapter 23. Urban health in low- and middle- income countries
Jenna Johnson, Sandro Galea

Heinrich KM, Johnson CB, Jokura Y, Nett B, Maddock JE. A survey of policies and local ordinances supporting physical activity in Hawaii counties. *Preventing Chronic Disease*. 2008; 5(1):A19.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2248783/pdf/PCD51A19.pdf>

Jackson RJ, Dannenberg AL, Frumkin H. Health and the built environment: 10 years after. (Commentary). *American Journal of Public Health*. 2013; 103:1542-1544.

March 5: Nature contact, healthy places tools, and the future
READING REFLECTIONS FOR WEEKS 5 TO 9 DUE

Guest speaker: Howard Frumkin, MD, DrPH, Dean, UW School of Public Health

MHP Chapter 15. Contact with nature
Howard Frumkin, Jared Fox

- MHP Chapter 20. Measuring, assessing, and certifying healthy places
Andrew Dannenberg, Arthur Wendel
- MHP Chapter 24. Built environments of the future
Tony Capon, Susan Thompson
- Ross CL, Leone de Nie K, Dannenberg AL, Beck LF, Marcus MJ, Barringer J. Health impact assessment of the Atlanta BeltLine. *American Journal of Preventive Medicine*. 2012; 42(3):203-213.
- Forsyth A, Slotterback CS, Krizek KJ. Health impact assessment in planning: Development of the design for health HIA tools. *Environmental Impact Assessment Review*. 2010; 30: 42–51.
- Garde A. Sustainable by Design?: Insights From U.S. LEED-ND Pilot Projects. *Journal of the American Planning Association*. 2009; 75: 4, 424-440.

March 12: Student presentations: Two minute testimony

Optional course readings

- MHP Chapter 21. Training the next generation to promote healthy places
Nisha Botchwey, Matthew Trowbridge
- MHP Chapter 22. Healthy places research: emerging opportunities
Richard Jackson, Arthur Wendel, Andrew Dannenberg
- MHP Glossary

Class activities/requirements

Reading Reflections: For each assigned reading, write one paragraph (typically ¼ to ½ page long, single spaced) responding to the following question. “Considering your own background and interests, and considering the focus of the class on health and built environment issues, what information in the reading was new to you, and how might the information in the reading be useful to you in your future work?” Also, on a scale of 1 (definitely delete) to 10 (definitely keep), should this reading be used in this class in the future?

Deliverable: Set of reading reflections accumulated into one file. **DUE January 29** (first 4 weeks of readings) and **March 5** (last 5 weeks of readings) and uploaded to Canvas

Field exercise: Street and park audit DUE DATE February 5

1. Review combined street and park audit tool.
2. Work in pairs with a classmate from another college or school (such as CBE and SPH) to conduct an audit of one local park and an adjacent street that leads to the park.
3. Deliverables to be uploaded to Canvas, clearly labeled to indicate who worked in your group:
 1. Map of park and adjacent street with key features noted.
 2. Completed audit tool for that park and street, including recommendations for how that park and street could be improved.
 3. Up to 10 digital photographs highlighting important features – please use low resolution photos so report can be emailed.

Research methods project:

1. Review topics listed in *Making Healthy Places Chapter 22. Healthy places research: emerging opportunities*.
2. Select a topic of interest from this chapter and write a 3-5 page single- spaced paper first describing briefly why the topic is important, and then describing in more detail how you would design a research project to add to our knowledge about this topic. Include proposed study design, types of skills research team would need, characteristics of a study population (and of comparison group if needed), data sources, methods such as surveys and informant interviews, types of analyses, and ethics concerns if any. The paper should also discuss what types of results might be found in such a study and the possible implications of such results.

Deliverable: 3-5 page paper. **DUE DATE February 26**

Two minute testimony:

1. Pick a current topic related to a proposed change in the built environment (locally or elsewhere) that has health implications. Instructors will provide some possible projects.
2. Prepare a two minute oral testimony that might be delivered to a city council, zoning board, legislature, or other decision making group conveying the health concerns about the project and how it might be improved to promote health or mitigate adverse health impacts.

Deliverable: 2 minute (timed) oral presentation in **March 12** class.