

HEALTHY PLACES

DEA 2700



how design & planning affect public health

Fall 2019 Tu / Thur 2:55-4:10 pm, Statler Hall Room 391
 Professor: Nancy M. Wells (nmw2)
 Grad TA: Hannah Hao (yh597)
 Undergrad TA's: Emily Flyer (evf8); Joanna Li (jl2886)

course email: dea_2700@cornell.edu
 NMW office hours: Tues 4:30 – 5:30, 2429 MVR Hall
 HH office hours: Mon 4:00 – 5:00, 3418 MVR Hall

OVERVIEW Drawing from urban planning, public health, architecture, landscape architecture, community nutrition, and environmental psychology, this course examines physical environment influences on health and health behaviors. We consider a variety of contexts, spanning the “micro” to “macro” scale, from rooms and buildings to parks and cities; from dishes and plates to gardens and plants. Similarly, we conceptualize “health” broadly to include physical and mental health as well as health behaviors such as physical activity and diet. Class includes lecture, discussion, and student presentations. Course sub-themes include sustainability, interdisciplinarity, unanticipated consequences, resilience, and health disparities.

READINGS Course readings are from the Dannenberg *et al.* textbook, websites, on-line pdfs, and articles posted on Canvas. Canvas readings can be found at Canvas (<https://canvas.cornell.edu>)

⌘ Dannenberg, A.L., Frumkin, H., Jackson, R.J. (Eds.) (2011). *Making Healthy Places: Designing & building for health, well-being & sustainability*. Island Press: Washington D.C. [textbook available in campus store]

HANDING IN ASSIGNMENTS:

- Please save your Mini's as “Lastname_Initials_ MiniA-dea 2700.” E.g., “Choi_FS_MiniA-dea 2700.docx”
- Mini's due by **9:00 am on due date** (*the day before class*; some Mondays, some Wednesdays) -- see below
- Submit mini's via email to dea_2700@cornell.edu [*and* bring to class for discussion]

REQUIREMENTS & POINTS

• Participation, Discussion – i.e., regular attendance, consistent preparation, participation in class		20
• Mini Assignments	20 points each, <i>choose</i> 3 out of 7 Mini's (you may complete 4 max)	60
○ Mini A: What's an HIA? Summarize one.	Due Wed Sept 4 9am	
○ Mini B: How much do you walk?	Wed Sept 11 9am	
○ Mini C*: Examining Pedestrian Behavior	Wed Sept 18 9am (*may do with partner)	
○ Mini D: Healthy (products +) Interiors	Wed Oct 2 9am	
○ Mini E: Dollarstreet	Mon Oct 7 9am	
○ Mini F: Exploring a food environment	Mon Oct 28 9am	
○ Mini G: Ecological Footprint	Mon Nov 25 9am	
• Final Project	May be completed solo or in groups of 2-3 (max)	80
○ Topic ideas and group members (1-2 paragraphs)	Wed Oct 16 5pm	
○ Outline and/or draft (for feedback)	Mon Nov 11 5pm	
○ Written Final Project	Mon Nov 25 5 pm	
○ Final Project Presentations	Tues Dec 3 + Thurs Dec 5, in class	
• Mid-Term Exam (in class)	Tues Oct 22	70
• Final Exam [see https://registrar.cornell.edu/Sched/exams.html]	Wed Dec 18, 9am	70
	TOTAL	300 points

LEARNING OUTCOMES

- Demonstrate an understanding of the influence of built & natural environment on health & health behaviors.
- Think critically to apply theory and other content to real-world contexts.
- Apply multi-disciplinary perspectives, including planning, public health, & environmental psychology to health & environment issues.
- Communicate effectively, both orally and in writing, related to environment and health issues.
- Develop interpersonal skills; work effectively together.
- Understand interdependence & social responsibility through service learning project & case studies.

MINI Assignments are an opportunity for you to personally engage with the course material by applying content to your own life, collecting a bit of data, or assessing some aspect of your environment. Grading is based on how well you follow the instructions, engage with the activity, and provide thoughtful insight that draws from your own experiences and the material in the course. Follow word limits if specified. Not accepted after due date & time.

- Mini assignments will be available on Canvas
- See syllabus p. 1 for Mini due dates

Health Impact Assessment (HIA) is a tool to encourage & enable decision-makers to consider the health implications of a policy, program, or project that is under consideration. To gain familiarity with HIA, please visit these websites:

- The Society of Practitioners of Health Impact Assessment <https://sophia.wildapricot.org>
- Health Impact Assessment, The World Health Organization (WHO) <http://www.who.int/hia/en/>
- Health Impact Assessment, Centers for Disease Control and Prevention <http://www.cdc.gov/healthyplaces/hia.htm>

RESOURCES

Websites

Side Walk Labs	https://www.sidewalklabs.com
Public Health Law Center	http://publichealthlawcenter.org/topics
Active Living Research, Robert Wood Johnson Foundation	http://www.activelivingresearch.org/
CDC – Designing and Building Healthy Places	http://www.cdc.gov/HEALTHYPLACES/
National Park Service, Healthy Parks, Healthy People US	https://www.nps.gov/public_health/hp/hphp/partners_ptp.htm
Healthy Eating Research, Robert Wood Johnson Foundation	http://www.healthyeatingresearch.org/
The Story of Stuff	http://storyofstuff.org
The Project for Public Spaces	http://www.pps.org/
Perkins & Will's Transparency Project	http://transparency.perkinswill.com/
Smart Growth American	http://www.smartgrowthamerica.org/research/dangerous-by-design/dbd2014/national-overview/
Helping Johnny Walk to School	http://www.preservationnation.org/information-center/saving-a-place/historic-schools/helping-johnny/helping-johnny-walk-to-school.html#.Ugu9V2RAQTs

Cool tools

- EPA's National Atlas for Sustainability Relational Browser [http://www.epa.gov/ged/tbes/flash/Relational Browser/RelationalBrowserWindow.html](http://www.epa.gov/ged/tbes/flash/Relational%20Browser/RelationalBrowserWindow.html)
- EPA's Health Research: <http://www2.epa.gov/healthresearch>
- EPA's EnviroAtlas: <http://enviroatlas.epa.gov/enviroatlas/DataFactSheets/index.html>
<http://enviroatlas.epa.gov/enviroatlas/atlas.html>
- Good Guide: <http://www.goodguide.com/>
<http://www.nytimes.com/2009/06/15/technology/internet/15guide.html>
- Walkscore <http://www.walkscore.com/>
- Gap Minder <http://www.gapminder.org/>
- Thriving Cities Project (UVA) http://www.iasc-culture.org/research_thriving_cities.php
- Park Score <http://parkscore.tpl.org/>

SCHEDULE & READINGS

Week 1: 8/29

8/29 Introduction

☞ Ch. 1 An introduction to healthy places

Robert Wood Johnson Foundation (2014). *Time to Act: Investing in the Health of our children and communities*. Executive Summary, pp. 1-31

Koehler, K., Latshaw, M., Matte, T., Kass, D., Frumkin, H., Fox, M., ... & Burke, T. A. (2018). Building healthy community environments: a public health approach. *Public Health Reports*, 133(1_suppl), 35S-43S.

Optional readings / resources:

Wells, N.M., Evans, G.W. & Yang, Y. (2010). Environments and Health: Planning Decisions as Public Health Decisions. *Journal of Architectural and Planning Research*, 27 (2), 124-143.

Week 2: 9/3 & 9/5

9/3 Theory [and Intro to HIA]

Theory: Environments & Health

☞ Ch. 17 Behavioral choices and the built environment

Dolan, P., Hallsworth, M., Halpern, D., King, D., Metcalfe, R. & Vlaev, I. (2012). Influencing behavior: The mindspace way. *Journal of Economic Psychology*, 33, 264-277.

Wethington, E. (2005). An overview of the Life Course perspective: Implications for Health and Nutrition. *J. Nutri Educ Behav*, 37, 115-120.

Kvatum, L (September 12, 2016). American cheese, sidewalks and chairs have a connection that may surprise you. *The Washington Post*.

Optional readings / resources:

Cabinet Office Behavioural Insights Team (2010). *Applying behavioral insight to health*. The National Archives, Kew, London.

Thaler, R.H. & Sunstein, C.R. (2008). *Nudge*. Yale University Press: New Haven, CT.

DUE Wed 9/4, 9:00 am: MINI A: WHAT IS AN HIA?

9/5 Health Impact Assessment

☞ Ch. 20 Measuring, assessing, and certifying healthy places

Morris, M. (2006). Integrating planning and public health. Chapter 6: Health Impact Assessment. Pp. 73-80.

Review at least two of the following websites:

- Centers for Disease Control & Prevention, HIA: <http://www.cdc.gov/healthyplaces/hia.htm>
- The Society of Practitioners of Health Impact Assessment <https://sophia.wildapricot.org>
- Active Living Research, RWJF, HIA: <http://www.activelivingresearch.org/resourcesearch/hia>
- World Health Organization, HIA: <http://www.who.int/hia/en/>

Optional readings / resources:

Health Impact Assessment – HB 2800: Oregon Farm to school and school Garden policy. Upstream Public Health. May 2011. <https://www.issuelab.org/resources/12943/12943.pdf>

Week 3: 9/10 & 9/12

9/10 Income, Race, and Health Disparities

☞ Ch. 9 Vulnerable populations and the built environment

Bullard, R.D. & Wright, B.B. (1993). Environmental Justice for all: community perspectives on health and research needs. *Toxicology and Industrial Health*, 9(5), 821 – 841 (excerpt 821-828).

Robert Wood Johnson Foundation (2014). *Time to Act: Investing in the Health of our children and communities*. <http://www.rwjf.org/content/dam/farm/reports/reports/2014/rwjf409002> Rationale: Unhealthy America pp. 32-41

Ten Things to Know about Health. Unnatural Causes (2008). California Newsreel

DUE Wed 9/11, 9:00 am: MINI B: HOW MUCH DO YOU WALK?

9/12 Design & Physical Activity: Building Scale

Bloomberg, M.R. et al., (2010). *Active Design Guidelines: promoting physical activity and health in design*. Chapter 2: Building design: creating opportunities for daily physical activity, p. 68 -106. <http://centerforactivedesign.org/dl/guidelines.pdf>

Zimring, C., Joseph, A., Nicoll, G.L., & Tsepas, S. (2005). Influences of building design and site design on physical activity: research and intervention opportunities. *Am. J. Prev Med*, 28 (2 Suppl 2), 186-193.

And: Discussion re: Final Project: Teams, Structure, Options

Week 4: 9/17 & 9/19

9/17 Design & the Obesity Epidemic: Historical Perspective & Environmental Influences

☞ Ch. 2 Community design for physical activity

Wells, N.M., et al. (2007). Environment, design and obesity. *Environment and Behavior*, 39 (1), 6-33.

Center for Active Design peruse: <http://centerforactivedesign.org/about/>

Bloomberg, M.R. et al., (2010). *Active Design Guidelines: promoting physical activity and health in design*. Chapter 1: Environmental design and health: past and present, p. 12-19. Chapter 2: Urban design: creating an active city, p. 22-24; peruse 25- <http://centerforactivedesign.org/dl/guidelines.pdf>

Optional readings / resources:

Bassett, D.R., Schneider, P.L. & Huntington, G.E. (2004). Physical activity in old order Amish community. *Med Sci Sports Exerc*, 36 (10) 79-85.

DUE Wed 9/18, 9:00 am: MINI C: EXAMINING PEDESTRIAN BEHAVIOR

9/19 Vision Zero

Guest Speakers: ERIC HATHAWAY, Transportation Engineer, City of Ithaca; and MICHAEL BRIGHAM, Graduate Student, Design + Environmental Analysis, Cornell University

☞ Ch. 5 Injuries and the built environment

Russo BJ et al (2018). Pedestrian Behavior at Signalized Intersection Crosswalks: Observational Study of Factors Associated with distracted walking, pedestrian violations, and walking speed. *Transportation Research Record*, 2672(35), 1-12.

Peruse: Vision Zero Network: <https://visionzeronetwork.org>

Week 5: 9/24 & 9/26

9/24 Workshop day: Planning and Discussion re: Final Projects

9/26 Creating Active Communities

Guest Speaker: NICK HELMHOLDT, Senior Planner, Tompkins County

☞ Ch. 19 Community engagement in design & planning

Bloomberg, M.R. et al., (2010). *Active Design Guidelines: promoting physical activity and health in design*. Chapter 2: Urban design: creating an active city, p. 22-24; peruse 25- <http://centerforactivedesign.org/dl/guidelines.pdf>

Week 6: 10/1 & 10/3

10/1 Healthy Products

Leonard, A. (2010). *The Story of Stuff*. Free Press: New York. Chapter 2 "Production" pp. 44 -105

Optional readings / resources:

Stapleton, H.M., Sharma, S., Getzinger, G., Ferguson, P.L., Gabriel, M., Webster, T.F. & Blum, A. (2012). Novel and high volume use flame retardants in US couches reflective of the 2005 PentaBDE phase out. *Environmental Science & Technology*, 46 (24), 13432-9.

Colborn, T., Dumanoski, D., & Myers, J.P., (1996). *Our Stolen Future*. Wiley: New York.
Smith, R. & Lourie, B. (2009). *Slow Death by Rubber Duck*. Counterpoint publishers, Berkeley, CA.



Illustration by Harry Campbell in Wilson (2012)

DUE WED 10/2, 9:00 am: MINI D: HEALTHY PRODUCTS + INTERIORS

10/3 Healthy Interiors

Wilson, A., (2012). The Nutritional Life of Buildings. *Green Source: The Magazine of Sustainable Design*, Jan 2012.

Janssen, H. (2013). My toxic couch's days are numbered: new furniture flammability standard proposed. *Scientific American*, February 11, 2013. [article + brief video] <http://blogs.scientificamerican.com/guest-blog/2013/02/11/my-toxic-couchs-days-are-numbered-new-furniture-flammability-standard-proposed/>

Bernstein, F.A. (2012) To help make sure your home is healthy, an ingredients list. *New York Times*, Feb 1, 2012. http://www.nytimes.com/2012/02/02/garden/an-online-database-of-hazardous-building-materials.html?_r=2

Transparency Project Website: www.Transparency.PerkinsWill.com

Optional readings / resources:

Wilson, A., (2012). The Nutritional Life of Buildings. *Green Source: The Magazine of Sustainable Design*, Jan 2012.

Healthy Environments: A compilation of substances linked to asthma. Perkins & Will <http://nems.nih.gov/Sustainability/Documents/NIH%20Asthma%20Report.pdf>

Anderson R. (2009). Ray Anderson, CEO of Interface Carpet: The business logic of sustainability. http://www.ted.com/talks/ray_anderson_on_the_business_logic_of_sustainability.html

Week 7: 10/8 & 10/10

DUE MON 10/7, 9:00 am: MINI E: DOLLARSTREET

10/8 Healthy Homes: Housing & Physical Health

☞ Ch. 11 Healthy Homes

Peruse & be ready to share something you found with the class: <https://www.gapminder.org>

Peruse: Building Evidence for Health: The 9 Foundations of a Healthy Building. Harvard TH Chan School of Public Health https://forhealth.org/9_Foundations_of_a_Healthy_Building.February_2017.pdf

10/10 Healthy Homes: Housing & Mental Health

Guest Speaker: Doctoral Candidate **UCHITA VAID**, *Design + Environmental Analysis, Cornell University*

☞ Ch. 23 Urban Health in Low- & Middle-Income Countries

Vaid, U. & Evans, G.W. (2017). Housing quality and health: An evaluation of slum rehabilitation in India. *Environment & Behavior*, 49 (7), 771-790.

Optional readings:

Evans, G.W., Wells, N.M., & Moch, A. (2003). Housing and mental health: A review of the evidence and a methodological and conceptual critique. *Journal of Social Issues*, 59 (3), 475-500.

Wells, N. M., & Harris, J. D. (2007). Housing quality, psychological distress, and the mediating role of social withdrawal: A longitudinal study of low-income women. *Journal of Environmental Psychology*, 27(1), 69-78.

Week 8: Thursday 10/17

10/15 No Class Tuesday 10/15 **FALL BREAK - Saturday 10/12 – Tuesday 10/15**

Wed 10/16 **FINAL PROJECT: Group membership + ideas due (1-2 paragraphs)**

10/17 Healthy Schools + School Gardens

☞ Ch. 14 Healthy Schools

The Center for Green Schools, National Academy of Environmental Design, and National Collaborative for Childhood Obesity Research. (2012). Green Health: Building Sustainable Schools for Healthy Kids — A Workshop.

http://nccor.org/downloads/green-health-report_2012-06-04_complete.pdf

Frerichs, L., Brittin, J., Sorenson, D., Trowbridge, M.J., Yaroch, A.L., Siahpush, M., et al., (2015). The influence of school architecture and design on healthy eating: A review of the evidence. *American Journal of Public Health*, 105 (4), e46-e57.

peruse: Beaumont, C.E., & Pianca, E.G., (2002). Why Johnny Can't Walk to School: Historic neighborhood schools in the age of sprawl. National Trust for Historic Preservation. <http://atfiles.org/files/pdf/whyjohnnywalkschool.pdf>

Optional readings

CDC (2011). School health guidelines to promote healthy eating and physical activity. *Morbidity and mortality weekly report*, 60 (5).

Story, M., Nannery, M.S., & Schwartz, M.B. (2009). Schools and obesity prevention: Creating school environments and policies to promote healthy eating and physical activity. *The Milbank Quarterly*, 87 (1), 71-100

Week 9: 10/22 & 10/24

10/22 MID-TERM EXAM 10/22 in CLASS

10/24 Leveraging the Power of Food: A food bank's role in community health

Guest Speaker: **MEG DEMMENT**, Chief Impact Officer, Foodlink, Inc., Rochester NY

☞ Ch. 3 Food environments

Foodlink website: <http://foodlinkny.org>

Optional readings / resources:

Fromme, A (2010). Finger Lakes Food for Everyone: Mapping scarcity in a land of plenty. *Edible Finger Lakes*.

<http://www.ediblefingerlakes.com/finger-lakes-food-for-everyone>

Week 10: 10/29 & 10/31

DUE Mon 10/28, 9:00 am: MINI F: EXPLORING THE FOOD ENVIRONMENT

10/29 Healthy Environments for Urban Youth

Guest Speaker: **Professor TASHARA LEAK**, Division of Nutritional Sciences, Cornell University

Morland, K., Wing, S., Diez Roux, A. & Poole, C. (2002). Neighborhood Characteristics Associated with the Location of Food Stores and Food Service Places. *Am J Prev Med*, 22(1):23–29

Optional readings / resources:

Story, M., Kaphingst, K.M. Robinson-O'Brien, R. & Glanz, K. (2008). Creating healthy food and eating environments: policy and environmental approaches. *Annu. Review Public health*, 29, 253-272.

Dubowitz, T. et al., (2015). Changes in diet after introduction of a full service supermarket in a food desert. *Health Aff (Millwood)*. 34 (11), 1858-1868.

10/31 FINAL PROJECT: Updates + Check-in (in class)

Week 11: 11/5 & 11/7

11/5 Healthy Workplaces

☞ Ch. 12 Healthy workplaces

11/7 The Natural Environment

☞ Ch 15 Contact with Nature

Frumkin, H., Bratman, G. N., Breslow, S. J., Cochran, B., Kahn Jr, P. H., Lawler, J. J., ... & Wood, S. A. (2017). Nature contact and human health: A research agenda. *Environmental health perspectives*, 125(7), 075001.

South, E. C., Hohl, B. C., Kondo, M. C., MacDonald, J. M., & Branas, C. C. (2018). Effect of Greening Vacant Land on Mental Health of Community-Dwelling Adults: A Cluster Randomized Trial. *JAMA Network Open*, 1(3), e180298-e180298.

Wells, N.M., Jimenez, F.E. & Martensson, F (2017). Nature's impact on children's health. In W. Bird & M. van den Bosch (Eds) Oxford Textbook of nature and public health. Oxford University Press.

Optional readings

Frumkin, H. (2013). The evidence of nature and the nature of evidence. *Am J. Prev Med*, 44(2), 196-197.

Ozer, E.J. (2007). The effects of school gardens on students and schools: Conceptualization and considerations for maximizing healthy development. *Health Education & Behavior*, 34, 846-863

Week 12: 11/12 & 11/14

Monday 11/11 FINAL PROJECT: Outlines and/or Drafts due - Monday 11/11

11/12 Healthy Environments for Children

Guest Speaker: Assistant Professor JANET LOEBACH, *Design + Environmental Analysis*, Cornell University

Tillman, S., Clark, A.E., Gilliland, J.A (2018). Children and Nature: linking accessibility of natural environments and children's health-related quality of life. *International Journal of Environmental Research and Public Health*, 15, 1072, 2-15

11/14 Healthy, Green Buildings

National Institute of Building Sciences. Whole Building Design. http://www.wbdg.org/wbdg_approach.php

Cedeno-Laurent, JG, Williams, A, MacNaughton, P, Cao, X, Eitland, E, Spengler, J & Allen, J (2018). Building evidence for health: Green buildings, current science, and future challenges. *Annu. Rev. Public Health*, 39:291-308.

Week 13: 11/19 & 11/21

11/19 Policy & Legislation for Healthy Places

☞ Ch. 18 Policy and legislation for healthy places

Robert Wood Johnson Foundation (April 2009). *Beyond Health Care: New directions to a healthier America*.

Download to whole document: <http://www.rwjf.org/content/dam/farm/reports/reports/2009/rwjf40483> Chapter 7 "Moving Forward" pp. 100-116.

11/21 Healthy Healthcare Settings

Guest Speaker: KATI PEDITTO, Post-Doctoral Fellow, *Design & Environmental Analysis*

☞ Ch. 13 Healthy healthcare settings

Schweitzer, M., Gilpin, L., & Frampton, S. (2004). Healing spaces: Elements of environmental design that make an impact on health. *The Journal of Alternative and Complementary Medicine*, 10 (1), S71-S83.

Ulrich, R. (1984). View through a window may influence recovery. *Science*, 224(4647), 420-421.

Week 14: 11/26

DUE Mon 11/25, 9:00 am: MINI G: ECO-FOOTPRINT

Monday 11/25 **FINAL PROJECT – Paper - DUE Monday 11/25 5:00 pm**

11/26 Future of Healthy Places

☞ Ch. 24 Built environments of the future

DeYoung, R. (2000). Expanding and evaluating motives for environmentally responsible behavior. *J. of Social Issues*, 56 (3), 509-526.

11/28 **No Class Thursday 11/28**

THANKSGIVING BREAK

Week 15: 12/3 & 12/5

12/3 Final Project Presentations, in class

12/5 Final Project Presentations, in class

Week 16: 12/10

12/10 **Wrap-Up & Review for Final Exam**

FINAL EXAM **Wednesday December 18, 9:00 am**

The exam building + room are not yet scheduled. Later in semester, please visit this link for exam location: <https://registrar.cornell.edu/exams/fall-final-exam-schedule#p>