

DEA 661

Environment & Health



Environmental influences on well-being through the life course

Wednesday 1:30 - 4:30

Spring 2008

<http://courses.cit.cornell.edu/dea661/index.htm>

Nancy M. Wells

nmw2@cornell.edu

E220 MVR Hall, (25)4-6330



Overview

In this course we will examine the impact of the physical environment on human health and well-being through the life course. Environmental factors to be examined include characteristics of the built and natural environment, housing and neighborhood, as well as sprawl, the dominance of the automobile and patterns of American landscape development. We will conceptualize "health" outcomes broadly to include physical health, obesity, mental health, cognitive functioning, etc. Working within the life course perspective, we will focus on environmental factors that act as either protective mechanisms – fostering the long-term resilience of individuals or as risk factors – contributing to long-term vulnerability.

Readings: Articles on blackboard: www.blackboard.cornell.edu
⌘ Frank, L.D., Engelke, P.O. and Schmid, T.L. (2003). *Health and Community Design: the impact of the built environment on physical activity*. Island Press.

Requirements & Grading

- **Discussion Leadership 15%**

Each week, one (or two) student(s) will prepare discussion questions in advance and will email these questions to the class **by the Sunday** prior to our meeting. These student(s) will then facilitate discussion in class.

- **Class participation & mini assignments 30%**

Because this is a seminar, participation is critical. In addition to contributing to discussion, participation will involve completing several mini-assignments such as environmental evaluations, collecting a bit of data through interviews, observation, etc. or some brief analysis and writing. Students are also invited to participate in a "good news show & tell," the last ~20 minutes of each class.



- **Science to Action: Bridging the Gap 20% product & presentation due April 9th**
 - **Topic, community contact, and idea due Feb 27th**

Create a research evidence-based product to address a real health/ healthy environment issue in the local community. You will need to connect with a real agency or organization to be your partner or client. The "product" might be an educational booklet or brochure, a 5-minute video, or a powerpoint presentation, for example. Themes might include: "Walk Your Kids to School," "Contribute to Local Greenway," "Build a Park," or "Test for Radon."

- **Final Paper ~20 pages. 25% due Tuesday April 29**
 - **Topic Idea 1-2 pages -- due Tuesday March 4**
 - **Paper Draft 5% due Friday March 28**
 - **In-Class Presentation of Final Paper 5% on Wednesday April 30**

Your final paper will explore a topic related to environments and health. The paper must include a thorough, well-organized literature review (with at least 10 references – mostly journal articles). The paper may be either a research grant proposal or an empirical research paper (for which you collect some data & report your findings).

Other Relevant Resources

Benfield, F.K., Raimi, M.D., and Chen, D.D.T. (1999). *Once there were greenfields: how urban sprawl is undermining America's environment, economy, and social fabric.*

Brownell, K. (2003). *Food fight: the inside story of the food industry.* McGraw Hill.

Frumkin, H. Frank, L. and Jackson, R. (2003). *Urban Sprawl and public health: designing, planning, and building for healthy communities.* Covelo CA: Island Press.

Freund, P and Martin, G. (1993). *The Ecology of the Automobile.* Black Rose Books, Cheektowaga, NY.

Frank,L.D, Engelke, P.O. and Schmid, T.L. (2003). *Health and Community Design: The Impact of the Built Environment on Physical Activity.* Island Press.

Kunstler, J. H. (1993). *The Geography of Nowhere.* New York: Simon & Schuster.

Louv. R. (2005). *Last child in the woods: saving our children from nature-deficit disorder.* Chapel Hill, NC: Algonquin Books.

Pollan, M. (2006). *The Omnivore's Dilemma.* New York : Penguin Press.

Schlosser, E. (2002). *Fast Food Nation: The dark side of the All-American Meal.* Boston: Houghton-Mufflin.

Spirn, A.W. (1984). *The Granite Garden: urban nature and human design.* Basic Books, Harper Collins.

Websites:

Public Health Law and Policy. <http://www.healthyplanning.org/>

Active Living Research, Robert Wood Johnson Foundation <http://www.activelivingresearch.org/>

Week 1**INTRODUCTIONS**

23 January, Wednesday**Introduction: Environmental Impacts on Health**

Jackson R.J., Kochtitzky C: Creating a healthy environment: the impact of the built environment on public health. Available from <http://www.sprawlwatch.org/health.pdf>

Srinivasan, S., O'Fallon, L.R. and Dearry, A. (2003). Creating healthy communities, healthy homes, healthy people: initiating a research agenda on the built environment and public health. *American Journal of Public Health*, 93 (9), 1446-1450.

Taylor, S.E. and Repetti, R.L. (1997). Health Psychology: What is an unhealthy environment and how does it get under the skin? *Annual Review of Psychology*, 48, 411-447.

FYI: 30 January Wednesday 11:30 – 1:00– 153 MVR Hall PRESENTATION Jennifer Wilkins

Jennifer Wilkins, Senior Extension Associate in Nutritional Sciences, will make an informal presentation on her extension program designed to strengthen community food systems and increase food system policy awareness. Through several venues such as Farm-to-School and her syndicated newspaper column Food Citizen, she informs consumers about how policy affects food systems. (This is an option for Mini #1)

Week 2

30 January, Wednesday Historical background: Environment & Public Health (& start Theory)

⌘ Frank et al. Chapter 2: Public health and urban form in America: historical precedents (pp. 11-37)

Sloan, D.C. (2006). From congestion to sprawl: Planning and health in historical context. *Journal of the American Planning Association*, 72 (1), 10-18.

Shaw, M. (2004). Housing and public health. *Ann. Rev. Public Health*, 25, 397-418. excerpt pp. 397-402

Knack, R. (1991). The one-acre habit is hard to break. *Planning*, 57 (8), 8-11.

Kunstler, J.H.(1993). *The Geography of Nowhere*. NY:Simon & Schuster. Ch. 3 "Life on the Gridiron" pp. 29-37.

Stokols, D. (1992). Establishing and maintaining healthy environments: toward a social ecology of health promotion. *American Psychologist*, 47, 6-22.

Kuo, F.E. (2002). Bridging the gap: How scientists can make a difference. In R.B. Bechtel and A. Churchman (Eds.) *Handbook of Environmental Psychology*, NY: Wiley, pp. 335 – 346.

Optional Readings¹:

Frumkin, H., Frank, L. and Jackson, R. (2003). Ch. 3 "Evolution of urban health" In: *Urban sprawl and public health*. Colvelo, CA: Island Press.

Gifford, R. (2002). Making a Difference: Some ways environmental psychology has improved the world.. In R.B. Bechtel and A. Churchman (Eds.) *Handbook of Environmental Psychology*, NY: Wiley, pp. 323 - 334.

Week 3

THEORETICAL FOUNDING

6 February, Wednesday**Human Ecology & Health Promotion
& The Life Course Perspective**

Bronfenbrenner, U. & Morris, P. (1998). The ecology of developmental process. In W. Damon and R. Lerner (Eds.) *Handbook of Child Psychology*, 5th ed. 992-1028. Wiley.

Wethington, E. (2005). An overview of the life course perspective: Implications for health and nutrition. *Journal of Nutrition Education and Behavior*, 37 (3), 115-120.

¹ Optional readings are not provided on electronic reserve. Some may be useful resources for final paper.

Wheaton, B. and Gotlib, I.H. (1997). Trajectories and turning points over the life course: concepts and themes. In I.H. Gotlib and B. Wheaton (Eds.) *Stress and adversity over the life course*. Cambridge, England: Cambridge University Press, pp. 1-25. [peruse]

Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry*, 57 (3), 316-331.

Optional Readings:

Bronfenbrenner, U. (1979). The ecology of human development: experiments by nature and design. Cambridge, MA: Harvard University Press. Chapter 1: Purpose and Perspective, pp 3-15; Chapter 2: Basic Concepts, pp 16-42.

Elder, G.H. (1998). The life course and human development. Chapter 16. In: W. Damon and R.M. Lerner (Eds.) *Handbook of Child Psychology*. Volume 1: Theoretical Models of Human Development. NY: J. Wiley & Sons, Inc.

Pavalko, E.K. (1997). Beyond Trajectories: multiple concepts for analyzing long-term processes. In M.A. Hardy (Ed.) *Studying aging and social change: conceptual and methodological issues*. Sage Publications.

Evans, G.W. (2004). The environment of childhood poverty. *American Psychologist*, 59 (2), 77-92.

Week 4

HOUSING

13 February, Wednesday

Housing & Health – Physical Health & Mental Health

Housing & Physical Health

Shaw, M. (2004). Housing and public health. *Ann. Rev. Public Health*, 25, 397-418. excerpt pp. 402-414.

Bashir, S.A. (2002). Home is where the harm is: Inadequate housing as a public health crisis. *American Journal of Public Health*, 92 (5), 733-738.

Krieger, J. & Higgins, D.L. (2002). Housing and health: time again for public health action. *American Journal of Public Health*, 92 (5), 758-768.

Thomson, H., Petticrew, M. and Morrison, D. (2001). Health effects of housing improvement: systematic review of intervention studies. *BMJ*, 323, 187-190.

Northridge, M.E., Sclar, E., and Biswas, P. (2003). Sorting out the connections between the built environment and health: A conceptual framework for navigating pathways and planning healthy cities. *Journal of Urban Health*, 80 (4), 556 – 568.

Housing & Mental Health

Evans, G.W. (2003). The built environment and mental health. *Journal of Urban Health*, 80 (4), 536 – 555.

Bartlett, S. N. (1997). Housing as a factor in the socialization of children: A critical review of the literature. *Merrill-Palmer Quarterly*, 43 (2), 169-198.

Gifford, R. and Lacombe, C. (2006). Housing quality and children's socioemotional health. *Journal of housing and built environment*, 21, 177- 189.

Optional Readings:

Dunn, J., and Hayes, M. (2000). Social inequality, population health and housing: A study of two Vancouver neighborhoods. *Social Science and Medicine*, 51, 563-587.

Evans, G.W., Wells, N.M., Chan, E., & Saltzman, H. (2000). Housing and mental health. *Journal of Consulting and Clinical Psychology*, 68, 526-530.

Evans, G.W., Wells, N.M. and 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.

Hopton, J. and Hunt, S. (1996). The health effects of improvement to housing: A longitudinal study. *Housing Studies* 11 (2), 271-286.

Somerville, M., Mackenzie, I., Owen, P. and Miles, D. (2000). Housing and health: does installing heating in their homes improve the health of children with asthma? *Public Health*, 114, 434-439.

Week 5**NEIGHBORHOODS****20 February, Wednesday****Neighborhoods, Nutrition & Health**

Ellen, I.G., Mijanovich, T. and Dillman, K. (2001). Neighborhood effects on health: exploring the links and assessing the evidence. *Journal of Urban Affairs*, 23 (3-4), 391-408.

Epstein, H. (2003). Enough to make you sick? *The New York Times Magazine*, October 12, 2003, 75-81, 98, 102-108.

Leventhal, T. & Brooks-Gunn, J. (2000). The neighborhoods they live in: The effects of neighborhood residence on child and adolescent outcomes. *Psychological Bulletin*, 126, 309-337. [[Read 309-310](#), [peruse 311-328](#), [Read 329-332](#)]

Morland, K., Wing, S., Roux, A.D., and Poole, C. (2002). Neighborhood characteristics associated with the location of food stores and food service places. *American Journal of Preventive Medicine*, 22 (1), 23-29.

Wrigley, N., Warm, D. and Margetts, B. (2003). Deprivation, diet, and food-retail access: findings from the Leeds 'food deserts' study. *Environment and Planning*, 35, 151-188 [peruse].

Stein, C.S. & Bauer, C. (1934) Store buildings and neighborhood shopping centers. *Architectural Record*, 75 (2) 174-187.

Optional Readings:

O'Campo, P. (2003). Invited commentary: Advancing theory and methods for multilevel models of residential neighborhoods and health. *American Journal of Epidemiology*, 157, 9-13.

Morland, K., Wing, S., and Roux, A.D. (2002). The contextual effect of the local food environment on residents' diets. *American Journal of Public Health*, 92 (11), 1761-1767

Timperio, A. Salmon, J., Telford, A. and Crawford, D. (2005). Perceptions of local neighbourhood environments and their relationship to childhood overweight and obesity. *International Journal of Obesity*, 29, 170-175.

Frumkin, H., Frank, L. and Jackson, R. (2003). Ch. 9 "Social capital, sprawl and health" In: *Urban sprawl and public health*. Colvelo, CA: Island Press.

Katz, L.F., Kling, J.R. & Liebman, J.B. (2001). Moving to opportunity in Boston: Early results of a randomized mobility experiment. *The Quarterly Journal of Economics*, 607-654.

Geis, K.J. and Ross, C.E. (1998). A new look at urban alienation: the effect of neighborhood disorder on perceived powerlessness. *Social Psychology Quarterly*, 61 (3), 232-246.

Sampson, R., J. D. Morenoff, & F. Earls. 1999. "Beyond Social Capital: Spatial Dynamics of Collective Efficacy for Children." *American Sociological Review*. 64, 633-660.

Ross, C.E. (2000). Walking, exercising, and smoking: does neighborhood matter? *Social Science & Medicine*, 51, 265-274.

27 February Bridging the Gap Topic, Community Contact and Idea DUE ~1 page

Week 6**THE ENVIRONMENT & HEALTH BEHAVIORS**

27 February, Wednesday The American Epidemic: Obesity & Physical Inactivity

⌘ Frank et al. Chapter 3: Physical activity and public health (pp. 38-54)

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

Costs and Consequences of sedentary living: new battleground for an old enemy. President's Council on Physical Fitness and Sports, Series, 3 (16) (March 2002).

Pate R.R., Pratt M., Blair S.N., et al. (1995). Physical activity and public health: a recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine. *Journal of the American Medical Association*. 273:402-407

DeAngelis, T. (2004). Battling obesity: What's to blame for the surge in super-size Americans? *Monitor on Psychology*, January 2004, 46-49.

Barriers to Children walking and biking to school – United States, 1999. *Morbidity and Mortality Weekly Report*, 51 (32), August 16, 2002. CDC.

Eid, J., Overman, H.G., Puga, D., & Turner, M.A. (2006) "Fat City: The Relationship Between Urban Sprawl and Obesity," Working Papers tecipa-255, University of Toronto, Department of Economics.

Sallis, J. F. Bauman, A., & Pratt, M. (1998). Environmental and policy interventions to promote physical activity. *Am. Journal of Preventive Medicine*, 15 (4), 379-397.

Optional Readings:

King, A.C., Stokols, D., Talen, E., Brassington, G.S. and Killingsworth, R. (2002). Theoretical approaches to the promotion of physical activity: forging a transdisciplinary paradigm. *American Journal of Preventive Medicine*, 23 (25), 15-25.

Schlosser, E. (2002). *Fast Food Nation: The dark side of the All-American Meal*. Boston: Houghton-Mufflin.

Kunstler, J.M. (2003). Big and blue in the USA. *Orion* online. Available at:

http://www.oriononline.org/pages/oo/curmudgeon/index_BigAndBlue.html

4 March, Tuesday

Paper Ideas Due – 1-2 pages with at least 5 citations

Week 7

5 March, Wednesday The Food Environment: From Micro to Macro

Donofrio, G.A. (2007). Feeding the City. *Gastronomica: The journal of food and culture*. 7 (4), 30-41.

Gallagher, M. (2006). Good Food: Examining the impact of food deserts on public health in Chicago. Mari Gallagher Research and Consulting Group: Chicago, IL.

Wansink, B. and Van Ittersum, K. (2005). Shape of glass and amount of alcohol poured: comparative study of effect of practice and concentration. *British Medical Journal*, 331, 1512-1514.

Cummins, S. and Macintyre, S. (2006). Food environments and obesity – neighborhood or nation? *International Journal of Epidemiology*, 35, 100-104.

Wilkins, J.L (2007). Put global warming on the menu. *Times Union.com*. January 7, 2007.

Bilger, B. (2006). The lunchroom rebellion: An haute-cuisine chef goes back to school. *The New Yorker*, Sept 4, 2006. pp. 72 – 80.

Pollan, M. (2006). *The Omnivore's Dilemma*. New York : Penguin Press. Chapter 5: The processing plant, pp. 85 – 99; Chapter 6: The consumer, pp. 100 – 108.

Optional Readings:

Wansink, B. (2004). Environmental factors that unknowingly increase food intake and consumption volume of unknowing consumers. *Annual Review of Nutrition*, 24: 455-479.

Brown, H. (2007). Democracy, by way of food. *The Ithaca Times*, January 10 – 16, 2007. pp. 6, 7, 11.

Week 8

12 March Obesity & The Life Course

⌘ Frank et al. Chapter 5: Physical activity: children, the elderly, and the poor (pp. 76- 98)

Belluck, P. (2005). Children's life expectancy being cut short by obesity. *New York Times*, March 17, 2005.

Hellmich, N. (2004). Study: Preschoolers don't exercise enough. *Ithaca Journal*, Nov 2, 2004.

Weil, E. (2005). Heavy Questions. *The New York Times Magazine*. January 2, 2005.

Poulton R., Caspi A., Milne B.J., Thomson W.M., Taylor A., Sears M.R., Moffitt T.E. (2002). Association between children's experience of socioeconomic disadvantage and adult health: A life-course study. *Lancet* 360:1640-45.

Power C, Manor O, Matthews S. (2003). Child to adult socioeconomic conditions and obesity in a national cohort. *International Journal of Obesity*. 27:1081-1086.

Lissau I, Sørensen T. (1994). Parental neglect during childhood and increased risk of obesity in young adulthood. *Lancet*, 343:324-27.

Optional Readings:

Kaplan, G.A. and Larzarus, N.V. (1991). Psychosocial factors in the natural history of physical activity. *American Journal of Preventive Medicine*, 7 (1), 12-17.

King, A., Kiernan, M., Ahn, D., and Wilcox, S. (1998). The effects of marital transitions on changes in physical activity: results from a 10-year community study. *Annals of Behavioral Medicine*, 20 (2), 64-69.

Week 9 ----- **SPRING BREAK** -----

19 March **No Class**

Week 10

26 March, Wednesday **(Un)Healthy Infrastructure: Sprawl, Cars, Building Design...**

⌘ Frank et al. Chapter 6: Understanding the built environment. (pp. 99-116)
Chapter 7: Transportation systems (pp. 117-136) [[peruse](#)]
Chapter 8: Land Use patterns (pp.137-152) [[peruse](#)]
Chapter 9: Urban design characteristics (pp. 152-177)

Diez Roux, A.V. (2003). Residential environments and cardiovascular risk. *Journal of Urban Health*, 80 (4), 569-589.

Sprawl and Health: Are modern land-use patterns making us sick? *Environmental Building News*, 11 (4)1, 10-13.

Ewing, R., Schmid, T., Killingsworth, R., Zlot, A., and Raudenbush, S. (2003). Relationship between urban sprawl and physical activity, obesity, and morbidity. *American Journal of Health Promotion*, 18(1), 47-57.

Appleyard, D. and Lintell, M. (1972). The environmental quality of city streets: the residents' viewpoint. *Journal of the American Institute of Planners*, 38, 84-101. (Also in Kaplan & Kaplan (1982). *Humanscape*. 233-258. Ulrich's.)

Optional Readings:

Kunstler, J. H. (1993). *The Geography of Nowhere*. New York: Simon & Schuster.

Shute, N. (1991). Driving beyond the limit. *The Amicus Journal*. Spring 1991. 10-17

Boutelle K.N., Jeffery R.W., Murray D.M., Schmitz M.K.H. (2001). Using signs, artwork, and music to promote stair use in a public building *American Journal of Public Health*, 91(12): 2004-2006.

Coleman KJ, Gonzalez EC (2001). Promoting stair use in a US-Mexico border community. *American Journal of Public Health*, 91(12): 2007-2009.

Kerr J, Eves FF, Carroll D (2001). The influence of poster prompts on stair use: The effects of setting, poster size and content *British Journal of Health Psychology*, 6: 397-405 Part 4.

Kerr J, Eves F, Carroll D (2001). Encouraging stair use: Stair-riser banners are better than posters. *American Journal of Public Health*, 91 (8): 1192-1193.

Russell WD, Hutchinson J (2000). Comparison of health promotion and deterrent prompts in increasing use of stairs over escalators. *Percept. Motor Skills*, 91 (1), 55-61.

Savitch, H.V. (2003). How suburban sprawl shapes human well-being. *Journal of Urban Health*, 80 (4), 590 -607.

28 March, Friday **Final Paper Draft Due**

Week 11 **THE NATURAL ENVIRONMENT**

2 April, Wednesday **The Natural Environment & Human Well-Being**

Frumkin, H (2001). Beyond Toxicity: human health and the natural environment. *American Journal of Preventive Medicine*, 20(3), 234-240.

Wells, N.M. and Evans, G.W. (2003). Nearby Nature: A Buffer of Life Stress among Rural Children? *Environment and Behavior*, 35 (3), 311-330.

Sullivan, W.C. and Kuo, F.E. (1996). Do trees strengthen urban communities, reduce domestic violence? *Technology Bulletin*, Urban & Community Forestry Assistance Program, Report R8-FR 56.

Optional Readings:

Kaplan, S and Kaplan, R. (2003). Health, supportive environments, and the reasonable person model. *American Journal of Public Health*, 93 (9), 1484-1489

9 April Science to Action: Bridging the Gap Assignment Due & Presentations

Week 12

9 April, Wednesday The Natural Environment & Human Well-Being

Kaplan, S. and Kaplan, R. (1989). *Cognition and Environment*. Ann Arbor: Ulrich's. pp. 77-88.

Kuo, F.E. (2001). Coping with poverty: impacts of environment and attention in the inner city. *Environment and Behavior*, 33 (1), 5-34.

Faber Taylor, A., Kuo, F.E., and Sullivan, W.C. (2001). Coping with ADD: The surprising connection to green play settings. *Environment and Behavior*, 33 (1), 54-77.

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

Optional Readings:

Hartig, T., Evans, G.W., Jamner, L.D., Davis, D.S. and Gärling, T. (2003). Tracking restoration in natural and urban field settings. *Journal of Environmental Psychology*, 23, 104-124.

Pretty, J. (2004). How nature contributes to mental and physical health. *Spirituality and Health International* 5 (2), 68-78.

Week 13

16 April, Wednesday Environmentalism + Sustainability: Taking Care of our Planet

Winter, D.D.N. and Koger, S.M. (2004). *The psychology of environmental problems*. Mahwah NJ: Lawrence Erlbaum Associates. Chapter 1: What on Earth are we doing? Pp. 1 – 26. Chapter 8: Putting it together – using psychology to build a sustainable world. Pp. 211 – 234.

Stern, P.C. (2000). Psychology and the science of human-environment interactions. *American Psychologist*, 55 (5), 523 – 530.

DeYoung, R. (2000). Expanding and evaluating motives for environmentally responsible behavior. *Journal of Social Issues*, 50 (3), 509 – 526.

Wells, N.M. and Lekies, K.S. (2006). Nature and the life course: pathways from childhood nature experiences to adult environmentalism. *Children, Youth and Environment*, 16 (1), 1-25.

Optional Readings:

Osbaldiston, R. and Sheldon, K.M. (2003). Promoting internalized motivation for environmentally responsible behavior: A prospective study of environmental goals. *Journal of Environmental Psychology*, 23, 349 – 357.

Conservation Psychology website: <http://www.conservationpsychology.org/>

Week 14 SITE VISIT -- TBA

23 April, Wednesday

29 April, Tuesday Final Papers Due

Week 15 STUDENT PRESENTATIONS

30 April, Wednesday Presentations of Final Papers.