Healthy Cities

URP 552, Fall 2019, 3 credits
Mon/Wed 2:30-3:50pm, A&AB 2108

Course instructor: Kimberley Kinder
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Office hours: By appointment, please reserve a time slot online using Google Calendar:

    https://calendar.google.com/calendar/selfsched?sstoken=UUVmX1N2V2MzN1hsfGRlZm
    F1bHR8ZDVhOGVhODI2Zjk0NWY3MmNiMjYyY2Q4NjNjODM3MjY

Course Description

The physical and social structures of cities have significant consequences for public health. Infrastructure influences exposure to environmental toxins, natural disasters, and infectious disease. Land use patterns and zoning laws affect whether people have access to healthy foods, medical services, and spaces for physical activity. The design details of streets, buildings, and plazas influence rates of physical injuries, chronic illnesses, transportation safety, social capital, and mental wellness. In this graduate-level seminar, students will prepare for their professional careers by learning how to design healthier cities. This involves attending to successes and failures of the city planning profession in the past. It also involves learning about emerging design strategies, policy approaches, and economic theories that can help city planners design healthier cities in the future. With this knowledge, students will have a foundation to effectively assess the health risks and wellness opportunities in existing contexts, as well as to develop interventions improving health and health equity.

Learning Goals

By the end of the semester, students will be able to:

- Explain the key planning techniques in history that brought health improvements to cities, such as sanitation infrastructure, green spaces, land use zoning, and building codes.
- Understand how land use and transportation patterns in cities contribute to a range of chronic health problems, and identify a range of promising design and policy reforms for mitigating these concerns.
- Recognize how past environmental health concerns related to things like nutrition, pollution, and infectious disease are re-emerging today in unexpected forms in the Global North
- Be able to describe the new urban public health risks appearing in mega-cities in the Global South.

Course Requirements

Students are expected to show up to class having done the assigned readings in advance. Students will prepare written responses to course material, which they will share with peers as online blog-style entries. Students will listen to lectures and participate during in-class discussions to deepen their knowledge of course content. Students will complete in-class exams to demonstrate mastery and recall of key course concepts. Students will also develop a final report evaluating a municipal plan of their choosing according to its strengths and weaknesses from a public health perspective, including offering recommendations for improvement.

Grading

Blog response (choose 10 days, worth 20% of your grade): Reading creates access to information. Writing and talking about the readings helps students retain and process the information. To facilitate this processing, I ask students to choose 10 days from the syllabus below. (In-class movie days are not eligible for this assignment.) For each of those ten days, write a short blog entry on the Discussion section of the Canvas course website. Entries should be two or three paragraphs long. The writing should focus on the "learning objectives" identified in the syllabus for that day. Blogs are due three hours before the start of class. Late entries will not receive credit.

Tests (Three tests, each one is worth 20% of your grade): Test taking is an opportunity to demonstrate comprehensive mastery of subject material. Studying for tests improves student understandings of key themes and concepts. Recalling and explaining material when writing answers to test questions also strengthens memory pathways and future recall. For these reasons, students are expected to complete the three tests during the semester. All three tests will be in-class tests. The tests will ask students to define key concepts and write short paragraph and/or essay responses to questions about key course themes. The learning objectives outlined in the syllabus below provide a useful (but not comprehensive) study guide

for these tests. The tests are not cumulative. Test One will cover the first third of syllabus material. Test two will cover the middle third. Test Three will cover the final third.

<u>Municipal plan evaluation (in-class presentation worth 5% of your grade, final submission worth 15% of your grade):</u> The purpose of this assignment is to give students practice connecting academic material with professional practice. After graduation, in their future role professional role, students will need to be able to use material learned in classrooms to improve health and wellness outcomes in a variety of real-world contexts. City planners and other agencies routinely develop general plans, as well as plans on specific issues like land use, transportation, housing, disaster preparedness, open space, environmental management, economic development, urban design, and citizen participation. Some of these plans explicitly prioritize public health, but many do not. For this assignment, students will select a plan that does not yet reach its full potential from a public health perspective, assess the plan's strengths and weaknesses from a public health perspective, and develop a series of recommendations for improvement. Students will make a presentation in class summarizing their findings and provide a final written report. Additional information will be provided mid-way through the semester. The final report is due electronically on the date of the university scheduled final exam.

Course Policies

Academic Integrity and Plagiarism Policy

> The [Rackham Graduate School policy](https://rackham.umich.edu/policy/section8/) (https://rackham.umich.edu/policy/section8/) states: "Integrity in research and scholarship is a fundamental value of the University of Michigan. It is the responsibility of all students to conduct research and scholarly activities in an ethical manner at all times." This requires that you are honest in all your course work.

> Plagiarism is the use of someone else's words, ideas, or work as one's own in writing or presentations, and failing to give full and proper credit to the original source. It is failing to properly acknowledge and cite language from another source, including paraphrased text. Plagiarism is a serious offense that will lead to grade penalties and a record filed with Taubman College. It may lead to failing a course or expulsion from the university.

Taubman College Academic and Professional Student Conduct Policies

> [These policies](https://taubmancollege.umich.edu/sites/default/files/files/policies/U-M_Taubman_Academic_Conduct_Policy_Final.pdf) (https://taubmancollege.umich.edu/sites/default/files/files/policies/U-M_Taubman_Academic_Conduct_Policy_Final.pdf) apply to all Taubman College students as well as non-Taubman College students who take courses within the college.

Statement on Diversity, Equity, and Inclusion

Taubman College affirms the principles of diversity, equity, and inclusion as we organize resources and priorities that align with our values. We seek to have a diverse group of persons at all levels of the college - students, faculty, staff and administrators - including persons of different race and ethnicity, national origin, gender and gender expression, socioeconomic status, sexual orientation, religious commitment, age, and disability status. We strive to create a community of mutual respect and trust, a community in which all members and their respective backgrounds, identities, and views are represented without any threat of bias, harassment, intimidation, or discrimination

Statement on Student Mental Health and Wellbeing

Taubman College is committed to advancing the mental health and wellbeing of its students. Studies and surveys indicate clearly that a variety of issues, such as strained relationships, increased anxiety, alcohol/drug problems, and depression, directly impact student academic performance. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, please reach out to any of the following for assistance:

Karen Henry is a counseling psychologist and therapist with services for the college. She is affiliated with CAPS but works exclusively with art, design, urban planning, and architecture students. Her office is located in the Art and Architecture Building and she can be reached by email for an appointment (karhenry@umich.edu).

[Counseling and Psychological Services](https://caps.umich.edu/) (CAPS, https://caps.umich.edu/) is dedicated to serving students. You can find their contact information and hours at the link to their website.

Accommodations for Students with Disabilities

If you think you need an accommodation for a disability, please inform the instructor. Some aspects of this course – including assignments, and in-class activities – may be modified to facilitate your participation and progress. We will work with [Services for Students with Disabilities](https://ssd.umich.edu/) (https://ssd.umich.edu/) to determine appropriate academic accommodations. We will treat any information you provide as private and confidential.

Course materials

The following textbook is required for this course:

- Lopez, Russell. *The Built Environment and Public Health, 2nd Edition*. Wiley & Sons, 2012.

These texts may be available to read for free online through the university library webpage. Additional readings will be available through the Canvas course website.

Course Schedule

9/4: Introduction and course overview

9/9: Key concepts in planning for healthy cities
- Learning objectives
    - Describe the public health roots of the city planning profession.
    - Explain the concept of an "environmental" health issue.
    - Consider what it takes to prove a connection linking an environmental characteristics with a public health outcome.
    - Conceptualize the many scales and levels where the city planning profession can intervene to improve health outcomes.
    - List some of the constraints on the ability to improve health through city planning.
- Readings
    - Galea, Sandro, Nicholas Freudenberg, and David Vlahov. "Cities and population health." *Social science & medicine* 60, no. 5 (2005): 1017-1033.
    - Lopez textbook (Chapter 1)
    - Corburn, Jason. "Reconnecting with our roots: American urban planning and public health in the twenty-first century." *Urban affairs review* 42, no. 5 (2007): 688-713.

9/11: NO CLASS (Expanded Horizons)

9/16: Industrial cities, slum cities
- Learning objectives
    - Examine how industrialization contributed to the emergence of new public health concerns.
    - Compare and contrast the industrial cities of the past and the so-called slum cities of the present. Speculate about how those similarities or differences might make it easier or more difficult to address public health today.
    - From a public health perspective, evaluate the political value—and also the dangers—of sensationalist reporting.
- Readings
    - Engels, Friedrich. "Great Towns." *The condition of the working class in England*. Oxford University Press, 1993 [1845]. In Part 1 of *City Reader.*
    - Davis, Mike. "Planet of Slums." *New Left Review* 26 (2004): 5-34.

9/18: Sanitation movement, then and now

- Learning objectives
  - Define environmental etiology.
  - Consider how medical theories inform city planning and urban design.
  - Instead of only focusing on the physical characteristics of sanitation systems, name and explain several administrative characteristics enabling the US municipal sanitation movements.
  - Explain the key differences in how water and sanitation services are delivered in the Global North in the past versus how they are likely to be delivered in the Global South in the future.
- Readings
  - Szczygiel, Bonj, and Robert Hewitt. "Nineteenth-century medical landscapes: John H. Rauch, Frederick Law Olmsted, and the search for salubrity." *Bulletin of the History of Medicine* 74, no. 4 (2000): 708-734.
  - Schultz, Stanley K., and Clay McShane. "To engineer the metropolis: sewers, sanitation, and city planning in late-nineteenth-century America." *The Journal of American History* (1978): 389-411.
  - Whittington, Dale, Jennifer Davis, Harry Miarsono, and Richard Pollard. "Designing a 'neighborhood deal' for urban sewers: a case study of Semarang, Indonesia." *Journal of Planning Education and Research* 19, no. 3 (2000): 297-308.

9/23: Sanitary housing (the good, the bad, and the ugly)
- Learning objectives
  - Explain the economic risks epidemics pose for cities.
  - Describe the concept of building a disease out of existence, which is a foundational concept behind many health-related building codes.
  - Explain how classism and racism influenced responses to contagious disease in the late nineteenth and early twentieth centuries. Make note of whether and where you see similar biases today.
- Readings
  - Garb, Margaret. "Health, morality and housing: the 'tenement problem' in Chicago." *American Journal of Public Health* 93 no. 9 (2003): 1420-30.
  - Craddock, Susan. *City of Plagues: Disease, Poverty, and Deviance in San Francisco*. University of Minnesota Press, 2000. (chapter 4)

9/25: Zoning and building codes
- Learning objectives
  - Describe the concept of single-use zoning, and explain why twentieth century planners thought it would improve public health.
  - Explain how zoning laws contribute to problems of health inequity.
  - Define "substandard" housing from a public health perspective.
  - Explain the key principles of healthy home design from a construction and maintenance perspective.

- Describe the strengths and limits of using disclosure mandates to address housing-related health concerns.
- Readings
  - Wilson, Sacoby, Malo Hutson, and Mahasin Mujahid. "How planning and zoning contribute to inequitable development, neighborhood health, and environmental injustice." *Environmental Justice* 1, no. 4 (2008): 211-216.
  - Krieger, James, and David E. Jacobs. "Healthy Homes." In Andrew Dannenberg, Howard Frumkin, and Richard Jackson (eds) *Making Healthy Places: Designing and Building for Health, Well-being, and Sustainability*. Island Press, 2011. (Chapter 11)
  - Zhang, Yang. "Residential housing choice in a multihazard environment: Implications for natural hazards mitigation and community environmental justice." *Journal of Planning Education and Research* 30, no. 2 (2010): 117-131.

9/30: Land use and car dependency
- Learning objectives
  - Summarize the broad policy frameworks and cultural norms supporting car-oriented development.
  - List the key design characteristics of conventional subdivisions contributing to auto-dependency.
  - List the health risks associated with driving.
  - Explain the health benefits, as well as the health risks, associated with walking and cycling.
  - Provide examples of retrofits to existing built environments that would make walking and cycling safer, more convenient, and more enjoyable.
- Readings
  - Lopez textbook (Chapter 4)
  - Frumkin, Howard, Lawrence Frank, and Richard J. Jackson. *Urban sprawl and Public Health: Designing, Planning, and Building for Healthy Communities*. Island Press, 2004. (p.5-15, 109-122)
  - Pucher, John, and Lewis Dijkstra. "Promoting safe walking and cycling to improve public health: lessons from the Netherlands and Germany." *American journal of public health* 93, no. 9 (2003): 1509-1516.

10/2: Affording healthy spaces
- Learning objectives
  - Define a supply-side approach to urban development.
  - Explain why infrastructure projects creating healthier living environments can be ineffective and even counter-productive in meeting the needs of low-income residents.

- List design strategies and policy measures that may lessen the significance of class as a barrier to healthy environments.
- Readings
  - Wolch, Jennifer R., Jason Byrne, and Joshua P. Newell. "Urban green space, public health, and environmental justice: The challenge of making cities 'just green enough.'" *Landscape and Urban Planning* 125 (2014): 234-244.
  - Koster, Martijn, and Monique Nuijten. "From Preamble to Post-project Frustrations: The Shaping of a Slum Upgrading Project in Recife, Brazil." *Antipode* 44, no. 1 (2012): 175-196.

10/7: TEST 1 (in class)

10/9: Physical activity
- Learning objectives
  - From a city planning perspective, differentiate between a "structured intervention" and a "lifestyle intervention" approach for promoting physical activity. (Please note: the city planning profession and the public health profession may have opposite definitions for these key terms.)
  - Describe key urban design strategies city planners are using to promote physical activity through walking and stair climbing.
- Readings
  - Frank, Lawrence D, Peter O. Engelke, and Thomas L. Schmid. "Introduction" and "Physical Design and Public Health." In *Urban Design Reader, Second Edition*. Routledge, 2013.
  - City of New York. "Active Design Guidelines: Promoting Physical Activity and Health in Design." New York, 2010. (Chapters 1 through 3)

10/14: NO CLASS (Fall study break)

10/16: Physical activity among vulnerable populations
- Learning objectives
  - Excluding people living with physical impairments, list social groups who are less likely to participate in active lifestyle campaigns.
  - Explain how characteristics of the built environment contribute to under-participation.
  - Describe specific strategies that can make opportunities to be physically active more accessible to vulnerable groups.
- Readings
  - Krenichyn, Kira. "'The only place to go and be in the city': women talk about exercise, being outdoors, and the meanings of a large urban park." *Health & Place* 12, no. 4 (2006): 631-643.

- Day, Kristen. "Active living and social justice: planning for physical activity in low-income, black, and Latino communities." *Journal of the American Planning Association*72, no. 1 (2006): 88-99.
- Banerjee, Tridib, JungA Uhm, and Deepak Bahl. "Walking to school: the experience of children in inner city Los Angeles and implications for policy." *Journal of Planning Education and Research* 34, no. 2 (2014): 123-140.

10/21: Air quality control
- Learning objectives
    - Identify who is most at risk from urban air pollution.
    - List sources of air pollution exposure in cities and neighborhoods.
    - Explain how real estate development contributes to air pollution problems.
    - Describe city planning strategies at both the macro and micro level to reduce urban air pollution and protect people from its health impacts.
- Readings
    - Lopez textbook (Chapter 7)
    - Schweitzer, Lisa, and Jiangping Zhou. "Neighborhood air quality, respiratory health, and vulnerable populations in compact and sprawled regions." *Journal of the American Planning Association* 76, no. 3 (2010): 363-371.
    - Yuan, Man, Yan Song, Yaping Huang, Shijian Hong, and Liejia Huang. "Exploring the association between urban form and air quality in China." *Journal of Planning Education and Research* 38, no. 4 (2018): 413-426.
- In-class article: "Urban Air Pollution Negates Health Benefits of a Long Walk on City Streets" (HuffPost)

10/23 Toxic exposures
- Learning objectives
    - Become familiar with early discussions about toxicity in built environments, including community activism and the changing role of government.
- Readings
    - Rather, John. "Making brownfields green again." *New York Times*, February 19, 2006.
- In-class film
    - *In Our Own Backyard*. VIDEO-D 52237-D. Also available online: http://docuseek2.com.proxy.lib.umich.edu/view/check/150160851510 000001327100000559/1/0/0

10/29: Urban environmental justice

- Learning Objectives
  - Define toxic exposure, environmental justice, and disproportionate burden.
  - Explain why inequitable exposure based on race (as opposed to class or zoning designation) is important from an environmental justice perspective.
  - Explain several reasons why the federal government's acknowledgement of environmental injustice does not necessarily lead to solutions.
  - Explain how city planning protocols helped or hindered health advocacy in the examples described in the readings.
- Readings
  - Lopez textbook (Chapter 13)
  - Corburn, Jason. *Street science: Community knowledge and environmental health justice.* The MIT Press, 2005. (Chapter 6)

10/31: Measuring health impacts
- Learning Objectives:
  - Define Health Impact Assessment: what it is, what it encompasses, what its benefits and limitations are, how it is used, and how it differs from EIA.
  - Describe the health risks of economic displacement due to urban redevelopment.
  - Explain the concept of a "development impact fee" as it relates to real estate development and public health.
  - List the many challenges facing community activists mobilizing around urban environmental justice concerns.
  - Explain the benefits of involving communities in developing plans for health promotion.
- Readings
  - Corburn, Jason. *Street science: Community knowledge and environmental health justice.* The MIT Press, 2005. (Chapter 5)
  - Corburn, Jason. *Toward the healthy city: people, places, and the politics of urban planning.* MIT Press, 2009. (Chapter 6)

11/4: Health Scorecards and Health-In-All policies
- Learning objectives
  - Summarize the key premise and recommendations of the "not in anybody's backyard" movement.
  - Explain the concept and utility of a healthy places "scorecard."
  - Define the concept of a Health In All Policy, and speculate on the impact these policies could have on the city planning profession.
- Readings:
  - Corburn, Jason. *Toward the healthy city: people, places, and the politics of urban planning.* MIT Press, 2009. (Chapter 7)

- Corburn, Jason, Shasa Curl, Gabino Arredondo, and Jonathan Malagon. "Health in all urban policy: city services through the prism of health." *Journal of Urban Health* 91, no. 4 (2014): 623-636.
- Heiman, Michael. "From 'Not in My Backyard!' to 'Not in Anybody's Backyard!'" (1990): 359-362.

11/6: TEST 2 (in class)

11/11: Disabling environments
- Learning Objectives
    - Define disabling environment. List at-risk groups. Provide examples of how environments are disabling to different groups.
    - Define aging in place. Explain the health benefits of aging in place. Explain city planning strategies facilitating this goal.
- Readings
    - Frumkin, Howard, Lawrence Frank, and Richard J. Jackson. *Urban sprawl and Public Health: Designing, Planning, and Building for Healthy Communities*. Island Press, 2004. (Chapter 10)
    - Livingston, Kathy. "When architecture disables: Teaching undergraduates to perceive ableism in the built environment." *Teaching Sociology* (2000): 182-191.
    - Loo, Becky PY, Winnie WY Lam, Rathi Mahendran, and Keiko Katagiri. "How is the neighborhood environment related to the health of seniors living in Hong Kong, Singapore, and Tokyo? Some insights for promoting aging in place." *Annals of the American Association of Geographers* 107, no. 4 (2017): 812-828.

11/13: Food access
- Learning objectives
    - Define the term food desert, and explain its strengths and weaknesses.
    - Explain the key differences between supermarkets, grocery stores, convenience stores, and restaurants in terms of price, geography, and nutrition.
    - Name and describe several city planning interventions that can improve access to healthy foods in urban settings.
- Readings
    - Lopez textbook (Chapter 9)
    - Raja, Samina, Changxing Ma, and Pavan Yadav. "Beyond food deserts: measuring and mapping racial disparities in neighborhood food environments." *Journal of Planning Education and Research* 27, no. 4 (2008): 469-482.
    - Raja, Samina, Li Yin, James Roemmich, Changxing Ma, Leonard Epstein, Pavan Yadav, and Alex Brian Ticoalu. "Food environment, built

environment, and women's BMI: Evidence from Erie County, New York." *Journal of Planning Education and Research* 29, no. 4 (2010): 444-460.

11/18: Mental health
- Learning objectives
  - Describe the concept of a therapeutic landscape.
  - Identify factors in the built environment likely to facilitate mental health, and explain why those built environment features might have those effects.
  - List characteristics of urban environments that might contribute to worsening mental health.
  - Using soundscapes as an example, list city planning interventions that might mitigate these risks.
- Readings
  - Lopez textbook (Chapter 11)
  - Völker, Sebastian, and Thomas Kistemann. "I'm always entirely happy when I'm here!" Urban blue enhancing human health and well-being in Cologne and Düsseldorf, Germany." *Social Science & Medicine* 78 (2013): 113-124.
  - Audio clip: Mars, Roman. "Sound and Health: Cities." *99% Invisible*, May 17, 2019. https://radiopublic.com/99pi/ep/s1!de105.

11/20: Social capital
- Learning objectives
  - Define social capital.
  - Explain the significance of social capital in promoting health, both during normal times and during periods of crisis.
  - Identify features of the built environment that facilitate the creation of social capital.
- Readings
  - Frumkin, Howard, Lawrence Frank, and Richard J. Jackson. *Urban sprawl and Public Health: Designing, Planning, and Building for Healthy Communities*. Island Press, 2004. (Chapter 9)
  - Klinenberg, Eric. *Palaces for the People: How Social Infrastructure can help fight inequity and the decline of civic life*. Crown, 2018. (pages 1-7, 14-21, 117-145)

11/27: Disaster preparedness
- Learning objectives
  - Describe the role of advance city planning in addressing public health needs during a natural disaster.

- Name and explain city planning strategies that reduce risks associated with storms, earthquakes, and wildfires.
- Describe city planning strategies that protect people from emerging risks of infectious disease.
- Using fire safety as an example, list several reasons social inequity undermines the effectiveness of city planning policies.
- Readings
  - Lopez textbook (Chapter 6)
  - Matthew, Richard A., and Bryan McDonald. "Cities under siege: Urban planning and the threat of infectious disease." *Journal of the American Planning Association* 72, no. 1 (2006): 109-117.
  - Davis, Mike. *Ecology of Fear: Los Angeles and the Imagination of Disaster*. Macmillan, 1998. (Pages 95-112 and 197-208, saved as two separate files on Canvas)

11/27: Climate change
- Learning objectives
  - Explain how cities are vulnerable to climate change from a public health perspective.
  - Describe steps city planners can take to improve health outcomes in the context of climate change.
- Readings
  - Bambrick, Hilary Jane, Anthony Guy Capon, Guy Bruce Barnett, R. Matthew Beaty, and Anthony John Burton. "Climate change and health in the urban environment: adaptation opportunities in Australian cities." *Asia Pacific Journal of Public Health* 23, no. 2_suppl (2011): 67S-79S.
  - Fields, Billy, Jeffrey Thomas, and Jacob A. Wagner. "Living with Water in the Era of Climate Change: Lessons from the Lafitte Greenway in Post-Katrina New Orleans." *Journal of Planning Education and Research* 37, no. 3 (2017): 309-321.

12/2: Revisiting the Global South
- Learning objectives
  - Describe the characteristics of informal urban settlements, their prevalence, and their associated public health challenges.
  - Slum upgrading takes many forms. Evaluate the relative health benefits associated with the following methods: regularized land titles; large-scale infrastructure provisioning; micro-scale infrastructure provisioning; savings-based community driven development.
  - Explain how multidimensional measurements of wellbeing overcome the limitations of conventional infrastructure-based measurements

commonly used as proxies when discussing built environment interventions for improving public health.

- Readings
    - Gulyani, Sumila, and Ellen M. Basset. "Retrieving the baby from the bathwater: slum upgrading in Sub-Saharan Africa." *Environment and Planning C* 25 (2007): 486-515.
    - Mehta, Lyla, and Anand Punja. "Water and well-being: Explaining the gap in understandings of water." In *Waterscapes: The Cultural Politics of a Natural Resource*, edited by Amita Baviskar, 188-210. Permanent Black, 2007.

12/4: TEST 3 (in class)

12/9: Student Presentations (in class)

12/11: Student Presentations (in class)