

Harvard T.H. Chan School of Public Health HCM 708: Social and Behavioral Determinants of Health Fall 2017-Spring 2018 Course Syllabus

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Course Focus

The aim of this course is to introduce the core concepts of social and behavioral determinants and how they influence the health of individuals, communities, and populations.

Course Objectives

By the end of the course, students should be able to:

- Describe how various social and behavioral determinants impact population health.
- Critique the validity of behavioral and social science research.
- Apply the prevention paradox to a range of public health issues.
- Identify ways to measure socioeconomic status and discuss how and why income, education, occupation and wealth are associated with health.
- Explain the history, context, and mechanisms/pathways leading to health disparities.
- Discuss how neighborhood characteristics influence population health.
- Apply the work/stress model to health outcomes.
- Define social networks, social support, and social capital and describe how these constructs are associated with health.
- Compare theories of health behavior and analyze their applicability to different types of health problems and populations.
- Formulate social and behavioral change interventions that are appropriate and responsive to the social and cultural context.
- Develop logic models and evaluation plans for public health programs or policies.
- Develop program and policy implementation skills, including communication, advocacy, and media engagement.

Course Organization, Format, and Requirements

Class format consists of online modules and on-site seminars led by the instructor. The purpose of the on-site seminars is to apply concepts covered in the online modules to cases and discuss concepts within the context of clinician-led health care organizations.

Online modules

- 1. Prevention Paradox
- 2. Socioeconomic Status and Health
- 3. Racial/Ethnic Health Disparities
- 4. Neighborhoods and Health
- 5. Job Stress and Health
- 6. Social Support, Social Networks, and Social Capital
- 7. Health Behavior Change: Challenges and Theories

Take-home module

8. Intervention Design (readings and homework assignment)

On-site Seminars

- 1. Course Introduction
- 2. Intervention Design
- 3. Logic Models
- 4. Evaluation Design
- 5. Guest presentation; wrap-up

Final Course Grade Distribution

Final Course Grades will be distributed as follows:

1 homework assignment	15%
Participation in online activities (blog posts, comments)	25%
Participation in on-site sessions	10%
Final paper	50%

Blog Post Reflections

All responses for the blog posts should be posted online and use a short essay response format (i.e., complete sentences, paragraph form, no bullet points). Limit to 250-500 words. Introduction and conclusion paragraphs not needed. Studies and resources discussed should be referenced accordingly.

Expectations

- Submit all assignments online via the course website.
- Read assignments before the online module/onsite class, view module/attend class, and participate in discussions.
- Turn in assignments on the specified due date, unless prior permission is granted from the instructor. Late assignments will be penalized half a letter grade (e.g., 5 points) per day late.
- As detailed in the *Harvard T.H. Chan Student Handbook*, students are expected to adhere to the highest standards of academic honesty.

Course Timeline

Session #	Date	Topic	Objectives	Assignments	Assignment Due Date
1 On-site seminar Course Intro	9/18	Course Introduction	Overview of course content, format, and expectations	None	
Online module	Week of 9/25	Prevention Paradox	 Apply the prevention paradox to public health issues Critique the prevention paradox 	 Complete readings View online module and complete activities Post response to course blog 	Due 10/8 by midnight
3 Online module	Week of 10/9	Socioeconomic Status (SES) and Health	 Define SES and describe measures of SES Articulate mechanisms/pathways between SES and health 	 Complete readings View online module and complete activities Post response to course blog 	Due 10/22 by midnight
4 Online module	Week of 10/23	Racial/ethnic Health Disparities	 Define race/ethnicity and health disparities Describe forms of discrimination Explain history, context, and mechanisms/pathways leading to racial/ethnic health disparities 	 Complete readings View online module and complete activities Post response to course blog 	Due 11/2 by midnight
5 On-site seminar Suffolk County case	11/3	Intervention Design	 Identify various types of behavior change interventions Develop SMART objectives Formulate public health interventions that are appropriate and responsive to the social and physical context 	Complete readings	
6 Online module	Week of 11/13	Neighborhoods and Health	 Identify neighborhood and environmental factors associated with health Understand the use of multilevel methods to disentangle individual and environmental factors linked with health Determine modifiable neighborhood characteristics to promote health 	 Complete readings View online module and complete activities Post response to course blog 	Due 11/26 by midnight

7 Online module	Week of 11/27	Job Stress and Health	 Apply the job stress model to various health behaviors and outcomes Identify modifiable psychosocial job stressors in the health care setting 	 Complete readings View online module and complete activities Post response to course blog 	Due 12/10 by midnight
8 On-site seminar Suffolk County case	1/5	Logic Models	 Identify core components and structure of logic models Design logic models 	Complete readings	
9 Online module	Week of 1/15	Social Support, Social Networks, and Social Capital	 Define social networks, social support, and social capital Describe the function and structure of social networks Describe how these constructs are associated with health 	 Complete readings View online module and complete activities Post response to course blog 	Due 1/28 by midnight
10 Online module	Week of 1/29	Health Behavior Change	 Understand motivators of health behavior change Critique existing health behavior change theories 	 Complete readings View online module and complete activities Post response to course blog 	Due 2/11 by midnight
11 Take-home module	Week of 2/12	Homework Assignment: Intervention Design and Logic Models	Apply concepts of intervention design and logic models for homework assignment	 Complete readings Brainstorm ideas for final paper Homework assignment (draft logic model and 1-page description) 	Due 3/4 by midnight
12 On-site seminar Sugary Drink case	3/5	Evaluation Design	 Utilize logic models to design evaluation frameworks for public health interventions Describe components and methods of evaluation 	Complete readings	
13 On-site seminar	4/28	Guest presentation Course wrap-up	Peter Pisters, MD, MHCM President and CEO of University Health Network in Toronto		
			Final paper due Sunday, 5/6 by midnight	•	•

Session Details: HCM 708 2017-2018

1. Onsite Session – Course Introduction

9/18/2017

Course Overview

- What are the social determinants of health? How and why are social factors relevant in the clinical and health care settings?
- Course and syllabus overview
- Overview of online module navigation

No readings or assignments due

2. Online Session – The Prevention Paradox

Week of 9/25/2017

Readings:

- 1. Rose G. Sick individuals and sick populations. *International Journal of Epidemiology* 1985; 14(1): 32-38.
 - http://ije.oxfordjournals.org.ezp-prod1.hul.harvard.edu/content/30/3/427.long
- 2. Knickman J.R. Getting Serious About the Social Determinants of Health. Institute of Medicine Commentary. May 9, 2015.
 - $\frac{http://iom.edu/\sim/media/Files/Perspectives-Files/2015/Commentaries/BPH-SocialDeterminantsHealth.pdf$
- 3. Payne J.W. Forever Pregnant. Washington Post. May 16, 2006. http://www.washingtonpost.com/wp-dyn/content/article/2006/05/15/AR2006051500875.html

Blog discussion prompt

Describe one adverse health-related outcome (i.e., chronic disease, infectious disease, injury, drug abuse, mental health conditions) that is preventable in your field of work. Discuss how the prevention paradox can be applied (or does not apply) to this outcome among relevant populations in your practice.

3. Online Session – Socioeconomic Status and Health

Week of 10/9/2017

Readings:

- 1. Shavers VL. Measurement of Socioeconomic Status in Health Disparities Research. *J Natl Med Assoc*. 2007 September; 99(9): 1013–1023. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2575866/pdf/jnma00208-0045.pdf
- 2. Marmot MG, Smith GD, Stansfield S, et al. Health inequalities among British civil servants: the Whitehall II study. *Lancet*. 1991 Jun 8;337(8754):1387-93. http://www.sciencedirect.com.ezp-prod1.hul.harvard.edu/science/article/pii/014067369193068K

3. Guttenplan, DD. Measuring the Wealth Effect in Education. New York Times. December 1, 2013. http://www.nytimes.com/2013/12/02/world/europe/measuring-the-wealth-effectin-education.html

Blog discussion prompt

Describe your patient population's SES and how patients' SES may influence patterns in their health behaviors and health status. Discuss how your practice/clinic might address some of the challenges that lower SES patients may face to achieve better health.

4. Online Session – Racial/ethnic Health Disparities Week of 10/23/2017

Readings

- 1. Kawachi I, Daniels N, Robinson D. Health disparities by race and class: Why both matter. Health Affairs 2005;24(2):343-352. http://content.healthaffairs.org.ezpprod1.hul.harvard.edu/content/24/2/343.long
- 2. Bhopal R. Glossary of terms relating to ethnicity and race: for reflection and debate. J Epidemiol Community Health. 2004; 58:441-445. http://jech.bmj.com.ezpprod1.hul.harvard.edu/content/58/6/441.long
- 3. Jones, CP. Levels of Racism: A Gardener's Tale. Am J Public Health. 2000;90:1212-1215. (PDF on course isite)
- 4. Ojito M. Best of Friends, Worlds Apart. New York Times. June 5, 2000. http://www.nytimes.com/2000/06/05/us/best-of-friends-worldsapart.html?pagewanted=all&src=pm

Blog discussion prompt and activity

- Describe discriminatory practices or instances (can be based on gender, weight, race, religion, SES, disability status, sexual orientation...etc) that you have observed or in the health care setting (can be intentional or unintentional, subtle or overt, internalized, interpersonal, or institutional). Discuss potential ways to address and prevent discrimination in the health care setting.
- Complete at least one of the Harvard Implicit Association Tests (IAT). https://implicit.harvard.edu/implicit/selectatest.html

5. Onsite Session – Intervention Design

11/3/2017

Readings

- 1. Bartholomew LK, Parcel GS, Kok G. Intervention mapping: a process for developing theory- and evidence-based health education programs. Health Educ Behav. 1998 Oct;25(5):545-63. http://heb.sagepub.com.ezpprod1.hul.harvard.edu/content/25/5/545.long
- 2. Michie S, van Stralen MM, West W. The behavior change wheel: a new method for characterizing and designing behavior change interventions. Implementation Science, 2011; 6:42. http://www.implementationscience.com/content/6/1/42

- 3. Abraham C, Michie S. A taxonomy of behavior change techniques used in interventions. Health Psychology, 2008; http://search.ebscohost.com/login.aspx?direct=true&db=pdh&AN=2008-08834-010&site=ehost-live&scope=site
- 4. Kreuter M, Wang ML. From Evidence to Impact: Recommendations for a Dissemination Support System. New Dir Child Adolesc Dev. 2015 Fall;2015(149):11-23. https://www-ncbi-nlm-nih-gov.ezp-prod1.hul.harvard.edu/pubmed/26375188
- 5. Suffolk County case (PDF on course isite)

Discussion Questions

- How do you identify the determinants driving heart disease in Suffolk County?
- Given limited resources, how will you decide which strategies to invest in to target heart disease in Suffolk County? Who or what will be accountable for the implementation, monitoring, dissemination, and financing of these strategies?

6. Online Session – Neighborhoods and Health

Week of 11/13/2017

Readings

- 1. MacIntyre S and Ellaway A. Chapter 14, Ecological Approaches: Rediscovering the Role of the Physical and Social Environment. In: Berkman LF, Kawachi I (eds). *Social Epidemiology*, New York: Oxford University Press 2000; pp. 332-345 (*PDF on course isite*)
- 2. Larson NI, Story MT, Nelson MC. Neighborhood environments: disparities in access to healthy foods in the U.S. *Am J Prev Med*. 2009 Jan;36(1):74-81. Epub 2008 Nov 1. Review. http://www.sciencedirect.com.ezp-prod1.hul.harvard.edu/science/article/pii/S0749379708008386
- 3. Giles-Corti, B. People or places: what should be the target? *J Sci Med Sport*. 2006; 9(5): 357-366. http://www.sciencedirect.com.ezp-prod1.hul.harvard.edu/science/article/pii/S1440244006001526

Blog discussion prompt

Describe neighborhood features (physical, service, and/or social) that influence the behaviors and health of your patients. Would changing any of these features be enough to motivate patients to utilize health services, preventive care, and/or engage in healthier behaviors? Discuss why or why not.

7. Online Session – Job Stress and Health

Week of 11/27/2017

Readings

1. Theorell T. Chapter 5, Working conditions and health. In: Berkman LF and Kawachi I (eds). *Social Epidemiology*. New York: Oxford University Press, (2000) pp. 95-113. (*PDF on course isite*)

- 2. Weigl M, Hornung S, Angerer P, Siegrist J, Glaser J. The effects of improving hospital physicians working conditions on patient care: a prospective, controlled intervention study. *BMC Health Serv Res.* 2013 Oct 9;13:401. http://www-ncbi-nlm-nih-gov.ezp-prod1.hul.harvard.edu/pubmed/24103290
- 3. Champagne N, Abreu M, Nobrega S., et al. Obesity/Overweight and the Role of Working Conditions: A Qualitative, Participatory Investigation. November 11, 2012. http://www.uml.edu/docs/Obesity_Report_NC_11-2-12_tcm18-87342.pdf

Blog discussion prompt

Reflect and describe the psychosocial aspects of your job that need improvement in order to enhance *any* of the following: provider health; provider performance; provider-patient relationships. Discuss how this might be feasibly implemented.

8. Onsite Seminar – Logic Models

1/5/2018

Readings

- Centers for Disease Control and Prevention. Division for Heart Disease and Stroke Prevention. Evaluation Guide: Developing and Using a Logic Model https://www.cdc.gov/dhdsp/docs/logic_model.pdf
- 2. W.K. Kellogg Foundation Logic Model Development Guide. 2004. http://www.wkkf.org/knowledge-center/resources/2006/02/WK-Kellogg-Foundation-Logic-Model-Development-Guide.aspx. (must click on the button to download the logic model development guide)
- 3. Suffolk County case (PDF on course isite)

Discussion Questions and Activities

- Design a logic model for the class-developed intervention.
- What components should be included? How are inputs, outputs, and outcomes linked?

9. Online Session – Social Support, Social Networks, and Social Capital

Week of 1/15/2018

Readings

1. Berkman LF and Krishna A. Chapter 7, Social Network Epidemiology. In: Berkman LF, Kawachi I, Glymour M (eds). *Social Epidemiology*, 2nd Edition. New York: Oxford University Press, 2014. (*PDF available on course website*).

- Holt-Lunstad J, Smith TB, Layton JB. Social relationships and mortality risk: a meta-analytic review. *PLoS Med*. 2010 Jul 27;7(7):e1000316.
 http://journals.plos.org/plosmedicine/article/asset?id=10.1371%2Fjournal.pmed.1000316.
 PDF
- 3. Christakis NA, Fowler JH. The spread of obesity in a large social network over 32 years. N Engl J Med 2007;357(4):370-9. http://www-ncbi-nlm-nih-gov.ezp-prod1.hul.harvard.edu/pubmed/17652652
- 4. Wang ML, Pbert L, Lemon SC. Influence of Family, Friend and Coworker Social Support and Social Undermining on Weight Gain Prevention Among Adults. *Obesity*. 2014; 22(9):1973-80. http://onlinelibrary.wiley.com.ezp-prod1.hul.harvard.edu/doi/10.1002/oby.20814/epdf

Blog discussion prompt

Reflect on the role of social support, social networks, and social capital in your patients' health. Discuss situations (if any) in which you might support a health intervention that includes improving social support. What are potential barriers to delivering these interventions? How might clinicians access or create social networks to help patients?

10. Online Session – Health Behavior Change

Week of 1/29/2018

Readings

- Theory at a Glance: A Guide for Health Promotion Practice. NCI, National Institutes of Health. Publication 5-3896, 2005. p. 9-21 http://www.sneb.org/2014/Theory%20at%20a%20Glance.pdf
- 2. Fila SA, Smith C. Applying the Theory of Planned Behavior to healthy eating behaviors in urban Native American youth. *Int J Behav Nutr Phys Act.* 2006 May 30;3:11. http://www.ijbnpa.org.ezp-prod1.hul.harvard.edu/content/3/1/11
- 3. Frank R.H. Mixing Freedoms in a 32-Ounce Soda. New York Times. March 23, 2015. http://www.nytimes.com/2015/03/24/business/soda-restrictions-and-a-clash-of-two-freedoms.html?_r=0

Blog discussion prompt

How can we achieve balance between personal responsibility and the "nanny state" to improve population health? What is the role(s) of the health care system and health care providers in this debate?

11. Take-home Session & Homework Assignment

Week of 2/12/2018

Readings

1. Revisit readings on Intervention Design and Logic Models

Assignment

2. Brainstorm ideas for an exposure, outcome, and population-based intervention of interest

- for your final paper.
- 3. Prepare and submit your homework assignment (1-page logic model and 1 page text description). This homework assignment will serve as a foundation for what you propose in the final paper.

****Homework Assignment DUE by Sunday, March 4th at midnight****

12. Onsite Session – Evaluation Design

3/5/2018

Readings

- 1. McNamara C. Basic Guide to Program Evaluation (Including Outcomes Evaluation) © Copyright Carter McNamara, MBA, PhD, Authenticity Consulting, LLC. http://managementhelp.org/evaluation/program-evaluation-guide.htm#anchor1577333 (scroll down to read through the contents on the entire website)
- 2. Centers for Disease Control and Prevention. Framework for program evaluation in public health. MMWR 1999;48(No. RR-11):[1-42]. https://www.cdc.gov/mmwr/PDF/rr/rr4811.pdf
- 3. Sugary Drink Legislation in Massachusetts case (PDF on course isite)

Discussion Questions and Activities

- Identify and operationalize three outcome indicators that you would want to measure for a sugary drink tax. Justify why you would want to measure these indicators.
- Discuss and determine key evaluation components needed to assess the impact of a sugary drink tax.
- What type of study design(s) might achieve an appropriate balance between feasibility and establishing causal inference?

13. Onsite Session – Guest Presentation & Course Wrap-Up 4/28/2018

Peter Pisters, MD, MHCM. President and CEO of University Health Network in Toronto. MHCM alumnus (cohort 14).

Readings

None

Teaching Cases

- 1. Kane NM, Alidina S. Heart Disease in Suffolk County. Copyright © 2008 by the President and Fellows of Harvard College.
- 2. Wang ML. Sugary Drink Legislation in Massachusetts. Copyright © 2017 by the President and Fellows of Harvard College.

Homework Assignment

All responses for the homework assignment should be double-spaced, with 1-inch margins, typed in 12-font, using a short essay response format (i.e., complete sentences, paragraph form, no bullet points. Introduction and conclusion paragraphs not needed). Cite references accordingly.

DUE DATE: Sunday, March 4th by midnight

Provide the following information in *no more than 2 pages*.

- Identify and describe a social or behavioral determinant of health issue (**exposure**) related to a health **outcome** that is relevant to a **population** of interest. (1/2 page)
- Briefly describe an intervention or policy that can be feasibly implemented in the clinic or health care setting that you think might address the association between exposure and outcome and improve health outcomes for your target population. (1/2 page)
- Construct a logic model detailing how and why the proposed intervention or policy would work. (1 page)

Final Paper Guidelines

Context

Currently, traditional methods of preventing and treating adverse health outcomes, particularly chronic conditions, are ineffective. **Identify** a social or behavioral determinant of health issue relevant to your field of work, **propose** an intervention that can be feasibly delivered to reduce adverse health outcomes associated with the social or behavioral determinant of health, and **design** a logic model and evaluation plan for the proposed intervention.

The paper should be *no more* than 8 pages excluding references and figures, *double-spaced*, with 1-inch margins, typed in 12-font.

DUE DATE: Sunday, May 6th by midnight

I. Introduction (~1-2 pages)

- 1. Describe your chosen social or behavioral determinant of health issue (exposure), related health problem or issue (outcome), and target population. Include cited references from scientific articles and sources.
- 2. Identify 2-3 specific health objectives for your target population. Provide justification for the significance of addressing these objectives.

II. Intervention (~3-4 pages)

- Propose an innovative intervention or policy approach to address your health problem
 that can be feasibly delivered in the clinical or health care setting. In designing your
 intervention, you may develop a novel intervention or adapt from existing interventions
 or policies to better suit your target population and exposure and outcome of interest.
 Include an overview of the intervention or policy, including the following:
 - 1. Description of intervention concept, components and strategies
 - 2. Evidence base and justification for the intervention
 Sample discussion points include: theory base, advantages of intervention
 compared with other potential interventions, existing research to support the
 evidence base for the intervention, feasibility, sustainability...etc.).
 - 3. Description of who will deliver the intervention and resources needed
 - 4. Identification of stakeholders/partners needed for the intervention
 - 5. Brief discussion of potential for sustainability and scalability

III. Logic Model (1 page)

- 1. Develop a logic model (include this as an appendix) that visually displays the rationale behind your intervention and your outcomes of interest.
- 2. Describe your logic model (1 page) and HOW the intervention will lead to the intended outcomes

IV. Evaluation (~2 pages)

Describe and justify the evaluation plan, including:

1. Who will conduct the evaluation?

2. Evaluation design components:

- a. *Comparison groups* will there be a comparison group that is not exposed to the intervention? If so, to what extent will the comparison group be equivalent or comparable to the intervention group? What will the comparison group receive?
- b. Intervention assignment randomized vs. nonrandomized
- c. *Sample* Will you collect data on all participants? A random, representative sample? Oversample any groups? How will you recruit them?
- d. *Measurement time points* (number, frequency, and evaluation duration)

3. Measures

- a. *Measures/Indicators* (e.g., knowledge, attitudes, health behaviors, health status/conditions, sociodemographics, community-, organizational-, or environmental-level characteristics)
- b. Target population and data sources
- c. *Type of data* (quantitative, qualitative, mixed)
- d. Measurement instruments and resources
 - i. Identify validated instruments (if existing) that assess the measures/indicators you have specified and adapt as needed.
 - ii. Include measurement tools (e.g., surveys) as appendices (does not count towards page limit).
- 4. *Data collection methods* (e.g., surveys, focus groups, interviews) and *platform* (in-person, phone, online)
- 5. How will you define "success" of your intervention? How will results be used?