

UCLA SCHOOL OF PUBLIC HEALTH
DETERMINANTS OF HEALTH
HS M242/CHS M232
Spring Quarter 2005

Instructors: Jonathan Fielding, MD, MBA, MPH (Health Services)
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Guest Instructors: Narayan Sastry, PhD (RAND)
Neal Halfon, MD, MPH, Professor (CHS)

Level: Graduate level course for masters and doctoral students
4 Credits

Class Meetings: Fridays, 9AM-12Noon
Room 41-235 CHS

COURSE OBJECTIVES:

1. Improve student understanding of theories and evidence to support multiple underlying determinants of health in populations.
2. Increase student understanding of the interplay of genetic, social, economic, behavioral, environmental and other factors that influence health.
3. Increase student appreciation of how an understanding of determinants of health can influence public policy, planning and research.

TEXTS:

1. *Social Epidemiology*, Editors: Lisa F. Berkman, Ichiro Kawachi, Oxford University Press, 2000.
2. **Course Readings** - Available at course website: www.toniyancey.com/HSM242

REQUIREMENTS:

1. Approximately 10-page paper on some aspect of multiple determinants of health in a Los Angeles defined population (e.g., by age, gender, racial/ethnic group, and geographic location). Paper shall include an analysis based on applicable theory and of available data on multiple health determinants for the defined population, and development of recommendations to improve the well-being and health of this population. Subjects for papers need to be approved in advance by the instructor. Papers will be graded based upon clarity of exposition, strength of analysis, consistency, and innovativeness.
2. Mid-term: short written exam due in week 7
3. Students will each take a turn in leading class discussion on a specific issue/topic related to the overall session topic. These are to be approved in advance by the instructor. The presentation and related class discussion should take about 45 minutes. The students shall prepare a written outline and key questions to be addressed in advance of the class and email them to Dr. Fielding and the other students no later than the Monday prior to class.

GRADING:

Grade will be based upon:

1. Paper – 40%
2. Examination – 35%
3. Class contribution – 25%

CLASS SESSIONS:

SESSION 1

April 8 (JF-content, TY-logis)-

Population health – the concept

- individual versus population health
- defining populations
- health, well being and quality of life

Model of determinants of health

- alternative conceptions
- uses of models
- Evans Stoddart model of health determinants

Required Readings:

Course Readings:

Frank JW, Mustard JF, Determinants of health from a historical perspective, from *Daedalus*, Health and Wealth, Journal of the American Academy of Arts and Sciences, Fall 1994.

Chapter 2. Evans RG, Stoddart GL, Producing Health, Consuming Health Care. In: Evans et al. (eds) Why are some people healthy and others not?, Aldine de Gruyter, 1994.

SESSION 2

April 15 (JF back-up)

Economic factors

Guest Instructor: Dr. Sastry

- wealth effects
- distribution effects

- relative versus absolute wealth
- interaction between economic and other factors

Required Readings:

Berkman & Kawachi: Chapter 4. Kawachi I, Income Inequality and Health.

Course Readings: Wilkinson RG, The epidemiological transition: from material scarcity to social disadvantage, from *Daedalus*, Health and Wealth, Journal of the American Academy of Arts and Sciences, Fall 1994.

Robert SA, House JS. Socioeconomic inequalities in health: integrating individual-, community-, and societal-level theory and research, *Handbook of Social Studies in Health and Medicine* 1999.

Smith JP. Healthy bodies and thick wallets: the dual relation between health and economic status *J Econ Perspect* 1999;13:145-166.

Suggested Readings:

Course Readings: Kaplan GA, et al. Inequality in income and mortality in the United States: analysis of mortality and potential pathways, *BMJ* 1996;312:999-1003.

Lynch JW, et al. Cumulative impact of sustained economic hardship on physical, cognitive, psychological, and social functioning, *N Engl J Med* 1997;337:1889-1895.

SESSION 3

Apr 22 (JF)

Genetic factors

- how much is determined by genetics
- different types of genetic factors
- interaction between genetic and other factors

Required Readings:

Course Readings: Chapter 5. Baird PA, The Role of Genetics in Population Health., Evans et al., 1994.

Ellsworth DL et al. Coronary heart disease: at the interface of molecular genetics and preventive medicine, *Am J Prev Med* 1999;16:122-133.

Hegele RA. Genetic prediction of coronary heart disease: lessons from Canada, *Scand J Clin Lab Invest* 1999;59:153-167.

Perera FP. Environment and cancer: who are susceptible? *Science* 1997;278:1068-1073.

Suk WA, Collman GW. Genes and the environment: their impact on children's health *Environ Health Perspect* 1998;106: 817-820.

SESSION 4

Apr 29 (JF)

Medical care factors

- role of personal healthcare in creating/maintaining health
- quantifying the contribution – approaches and methods – weighing positive and negative effects
- applying the model to cardiovascular disease

Required Readings:

Course Readings:

Chapter 2. Evans RG, Stoddart GL, Producing Health, Consuming Health Care, Evans et al., 1994.

Chapter 7. Marmot MG, Mustard JF, Coronary Heart Disease from a Population Perspective, Evans et al., 1994.

Bunker JP, Frazier HS, Mosteller F, The Role of Medical Care in Determining Health, from Amick BC, et al., *Society and Health*, Oxford University Press, 1995.

Faulkner LA, Schauffler HH. The effect of health insurance coverage on the appropriate use of recommended clinical preventive services, *Am J Prev Med* 1997;13:453-458.

Pincus T et al. Social conditions and self-management are more powerful determinants of health than access to care, *Ann Intern Med* 1998;129:406-411.

SESSION 5

May 6 (TY back-up)

Social and Behavioral factors

Guest Instructor: Dr. Sastry

Social factors

- range of social factors
- social structures and networks
- developing versus developed countries

Behavioral factors

- behavior as an intermediate determinant
- influences on human behaviors in individuals and groups
- gender and behavior
- example of smoking

Required Readings:

Berkman & Kawachi:

Chapter 7. Berkman LF, Glass T, Social Integration, Social Networks, Social Support, and Health.

Chapter 8. Kawachi I, Berkman L, Social Cohesion, Social Capital, and Health.

Chapter 11. Emmons KM, Health Behaviors in a Social Context.

Course Readings:

Chapter 4. Corin E, The Social and Cultural Matrix of Health and Disease. Evans et al., 1994.

~~Lantz PM, et al. Socioeconomic factors, health behaviors, and mortality, *JAMA* 1998;279:1703-1708.~~

Lynch, JW, et al. Why do poor people behave poorly? Variation in adult health. Behaviors and psychosocial characteristics by stages of the socioeconomic lifecourse, *Soc Sci Med* 1997;44:809-819.

Singer B, Ryff C. Racial and ethnic inequalities in health: environmental, psychosocial, and physiological pathways, in Devlin B, et al., eds. *Intelligence, Genes, and Success: Scientists Respond to the Bell Curve*. New York: Springer, 1997.

Smith JP, Kington RS. Race, socioeconomic status, and health in later life, in Martin LG, Soldo BJ, eds. *Racial and Ethnic Differences in the Health of Older Americans*. Washington: National Academy Press, 1997.

Suggested Readings:

Course Readings: Kennedy BP, et al. (Dis)respect and black mortality, *Ethn Dis* 1997;7:207-214.

SESSION 6
May 13 (TY)

Physical environmental factors

- aspects of the physical environment that affect health
- global trends that affect populations

Biological pathways

- possible neural and other pathways
- animal experiments
- intriguing data from human studies

Required Readings:

Berkman & Kawachi: Chapter 5. Theorell T, Working Conditions and Health.

Chapter 13. Brunner EJ, Toward a New Social Biology.

Chapter 15. Marmot M, Multilevel Approaches to Understanding Social Determinants.

Course Readings: Doll R. Health and the environment in the 1990s, *Am J Public Health* 1992;82:933-941.

Chapter 6. Evans RG, Hodge M, Pless IB, If Not Genetics, Then What? Biological Pathways and Population Health, Evans et al., 1994.

Galbally RL. Health-promoting environments: who will miss out? *Aust N Z J Public Health* 1997;21:429-30.

Last JM, Housing and health, in Last JM, Wallace RB, eds. *Public Health & Preventive Medicine*. Norwalk, Connecticut: Appleton & Lange, 1992, pp. 671-675.

Little RE. Public health in central and eastern Europe and the role of environmental pollution, *Annu Rev Public Health* 1998;19:153-172.

Epstein PR. Is global warming harmful to health? *Scientific American* 2000 Aug;283(2).

Cohen S, Herbert TB. Health psychology: psychological factors and physical disease from the perspective of human psychoneuroimmunology, *Annu Rev Psychol* 1996;47:113-142.

Swinburn B, Egger G, Raza F. Dissecting obesogenic environments: the development and application of a framework for identifying and prioritizing environmental interventions for obesity. *Prev Med* 1999;29:563-70. Life cycle effects and trajectories

May 13

MIDTERM EXAMS DISTRIBUTED

SESSION 7

May 20 (TY back-up)

Guest Instructor: Dr. Halfon

- short- versus long-term effects of health determinants
- critical developmental periods
- interaction between social and other determinants
- childhood experiences and long-term effects

Required Readings:

Course Readings:

Schor EL, Menaghan EG, Family pathways to child health, from Amick BC, et al., *Society and Health*, Oxford University Press, 1995.

Hertzman C, The lifelong impact of childhood experiences: a population health perspective, from *Daedalus*, Health and Wealth, Journal of the American Academy of Arts and Sciences, Fall 1994.

Romer PM, Economic growth and investments in children, from *Daedalus*, Health and Wealth, Journal of the American Academy of Arts and Sciences, Fall 1994.

Halfon N. Life course health development: an integrated model for measuring health and planning and paying for health intervention, 1999.

May 20

MIDTERM EXAMS DUE

SESSION 8

May 27 (JF & TY)

Public Health and health of the public

- public health mission
- contributions of public health to population health
- mission versus effects
- future role

Required Readings:

Course Readings:

Executive summary, from Institute of Medicine, *The Future of the Public's Health*. Washington, D.C.: National Academy Press, 2003.

Chapter 12. Renaud M, *The Future: Hygeia versus Panakeia?*, Evans et al., 1994.

SESSION 9

June 3 (TY)

Healthy Public Policy/Operationalizing the determinants model of health (Part I)

- a. community**
- b. state**

- criteria for healthy public policy
- examples and counterexamples
- conditions favoring progress
- potential of interventions at different aggregations of population

Required Readings:

Berkman & Kawachi:

Chapter 16. Heymann SJ, *Health and Social Policy*.

Course Readings:

Mercer SL, Green LW, Rosenthal AC, Husten CG, Khan LK, Dietz WH. Possible lessons from the tobacco experience for obesity control. *Am J Clin Nutr* 2003;77(suppl):1073S-1082S.

Patrick DL, Wickizer TM, *Community and Health*, from Amick BC, et al., *Society and Health*, Oxford University Press, 1995.

Yancey AK, Kumanyika SK, Ponce NA, McCarthy WM, Fielding JE, Leslie J, Akbar J. Population-based interventions engaging communities of color in healthy eating and active living: a review. *Preventing Chronic Disease*. Jan 2004;1(1):[serial online].

CA Center for Health Improvement Policy Briefs*

Californians Favor Investing in After-School, Mentoring, Education Programs

~~Californians Identify Key Elements of Welfare-to-Work Plan~~

Supporting Children and Families: Communities, Schools, Employers Play Key Roles

~~Opportunities to Improve Productivity, Mental Health of Workers: AB 88 Important Step for Insured Workers; Needs of Uninsured Loom~~

The Public and Health Plans Agree: Increased Investment in Community Health is Important

* - The briefs can be accessed at www.cchi.org

SESSION 10

June 10 (JF)

Healthy Public Policy/Operationalizing the determinants model of health (Part II)

- a. **national**
- b. **international**
- c. **indicators/performance monitoring**

- criteria for healthy public policy
- examples and counterexamples
- conditions favoring progress
- potential of interventions at different aggregations of population

Readings:

Course Readings:

Fielding JE et al. Community health report cards. Results of a national survey, *Am J Prev Med* 1999;17:79-86.

Kersh R, Morone J. The politics of obesity: seven steps to government action. *Health Affairs* 2002;142-153.

Northern and Yorkshire Public Health Observatory. *An Overview of Health Impact Assessment*. Occasional Paper #1. May 2001.

Fleeman N, Scott-Samuel A. A prospective health impact assessment of the Merseyside Integrated Transport Strategy (MerITS). *J of Public Health Medicine* ____;22(3):268-274.

Will BP, Berthelot JM, Nobrega KM, Flanagan W, Evans WK. Canada's Population Health Model (POHEM): a tool for performing economic evaluations of cancer control interventions. *European J of Cancer* 2001;37:1797-1804.

Chapters 4-6, from Institute of Medicine, Improving Health in the Community: A Role for Performance Monitoring. Washington, D.C.: National Academy Press, 1997.

~~Partnership for Prevention, Report to Congress, 2000.~~

June 10

FINAL PAPERS DUE