

POPULATION HEALTH AND THE THIRD SECTOR
MPA 853, Spring - Summer Semester 2019
School of Policy Studies,
Queen's University, Kingston, Ontario

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Course Schedule:

April: 26 - 27, May: 13-17 (8:30 - 11:30 AM)

June: 3 – 7 (1:00 – 4:00 PM)

E-mail: TBA

Phone (613) 533-6000 ext.

Class Room: TBA

I. COURSE OBJECTIVES AND DESCRIPTION:

Health is not just being free of “illness,” rather, it is a physical and psychological “state of wellbeing,” influenced by a host of socioeconomic factors such as social relations, the working and living conditions, employment status, the level of income, access to healthcare, education, personal safety and security—to mention a few. Each of these factors has the potential to affect health and health equity even though health may not be the core concern of all these factors. A policy framework that aims to address *population health*, and that is pro-equity therefore demands integration between health and other sectors of social organization. This course provides students with a *theoretical and empirical* understanding of the major socioeconomic determinants of health, and the complex physiological pathways by which socioeconomic factors get inside the human body making people vulnerable to disease. The course will also examine the *role* of the community in helping individuals to cope with stress during adversity.

The social and economic problems influence health in all stages of life. For example, studies have shown that delayed growth in utero and during infancy is associated with the development of cardiovascular disease in adult life. Further, low birth weight and emotional deprivation in childhood are known to cause learning disabilities and other behavioral problems, which could, in turn, be a precursor to long-term material disadvantages in adult life (Life-course Health Development). While socioeconomic disadvantages influence both absolute and relative health, the impact of these conditions can be minimized by social support. Described as the third sector, nonprofit sector, voluntary sector, and community organizations, civic associations facilitate social interaction; bring individuals together (bonding and bridging social capital) through shared values, mutual trust, and networks to realize social goals. The general wellbeing can be improved by strengthening “social capital” of a given population. A cohesive society is richly endowed with stocks of social capital such as interpersonal trust, mutual support and social networks, which are known to promote positive health outcomes. Social capital is believed to enhance the resilience to stress, and help protect against psychosocial risk factors associated with a wide range of psychosomatic disorders. The extent to which social capital enhances individual cooperation and facilitates coordinated actions, increases health and wellbeing of the community.

Although the principal focus of the course is contemporary Canadian society, it will examine a wide range of materials to highlight specific case studies in population health and the role of the community. In this context, the emerging policy implications for “health care” in Canada will be discussed. The key objectives of the course are:

- 1) To understand the difference between “individual health,” and “population health,” and the determinants of individual “risks,” and the determinants of “population health,”
- 2) To understand the physiological and neuroendocrine mechanisms that connect socioeconomic status to psychosomatic disorders, which develop in adulthood that were not evident at earlier stages (epigenetic processes),
- 3) To examine the relationship between social determinants of health and social capital (social support), and the health benefits accrued to individual and to the community by the properties of social capital,
- 4) To discuss a policy framework that would lead to “population health promotion” strategies in Canada.

These objectives have been developed in view of the changing approaches to health in Canada, and across the globe, and the required understanding of broad social issues to formulate public policies.

II. DISTINGUISHING INDIVIDUAL RISKS FROM POPULATION HEALTH DETERMINANTS:

In clinical practice, doctors consider the *individual* patient as their priority. Professionally, appropriate action is to maximize the benefit of an individual patient. Expanding the clinical role to include prevention generally means focusing on individual risks—detecting why someone is at risk to a particular disease, and preventing the progression of the disease. This may include advising patients to quit smoking, reduce fat-intake, or counseling pregnant mothers. These are all aimed at detecting and modifying individual risks.

In contrast, the focus of the population health approach is the entire community, and the underlining socioeconomic, environmental and political factors that contribute to illness and health inequities of the population: there are patterns of disease in a given population. Some groups have a higher burden of morbidity and mortality than others; there are class, ethnic and gender differences in rates of disease occurrence. It has been well documented that even in countries with universal access to health care, there is a socioeconomic gradient in morbidity and mortality, which points to the evidence that there are factors in the socio-economic environment that affect health. The population health approach focuses on *health determinants and vulnerabilities of the population* rather than individual risk factors. The population health strategies are concerned with the overall reduction of morbidity, mortality, injury and infirmity within the larger community.

III. LINKING POPULATION HEALTH TO SOCIAL CAPITAL:

One of the main objectives of the population health approach is to examine the interrelated socio-environmental conditions that underlie the health of a given population, and to suggest policy actions to mitigate such conditions, and to improve the wellbeing of those people. However, no amount of national wealth allocated to strengthen the social safety net can address the physical and psychological effect the social isolation in modern society. While absolute poverty deprives the poor from the benefits of basic material requirements in life, social and economic inequalities lead to the social isolation of the poor. Socially isolated people die at two or three times the rate of people with a network of social relations and sources of emotional and instrumental support. Reciprocity, a key attribute of social capital, is an informal safety net that could prevent the individual falling through the cracks of a broken social system.

IV. COURSE REQUIREMENTS AND GRADING

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| I. | <u>Critical Review of a published paper</u> assigned by the instructor (3 typed pages max.) | 25% |
| II. | <u>Research Paper</u> on any aspect of population health (further instructions will follow) | 50% |
| III. | <u>Class Presentation</u> (based on the research for the paper) | 25% |

Readings: Using PubMed/ Sociological Abstracts (ProQuest)/ and other major databases, the instructor has selected a set of published papers (by leading authors in the field) on: Population health and social capital encompassing areas such as: **1) Population health and individual health, 2) Social determinants of health, 3) Physiological and psychological mediators of disease, 4) Social capital and its key contours that mediate health, 5) Policy measures that mitigate health inequities.** Students are required to make copies of these papers in the beginning of the course so that they can study them in preparation for each class. A list of additional readings can be found at the end of the course outline. The course will be presented in a lecture-seminar format. All students are expected to read the assigned readings for each session and participate actively in class discussions.

Critical Review Paper: Due May 6th, 2019 (your review must be e-mailed to: (my email address) and results will be given on May 13th). This is an analytical review of one of the assigned papers for the course. The review must demonstrate superior understanding of the issue, existing debates or criticisms and your own responses. **All independent opinions count!!** If you have any questions regarding Graduate Study's policy on academic integrity, please visit the following website: http://www.queensu.ca/calendars/sgrs/Academic_Integrity_Policy.html [For details on the School's requirements/commitments, please see page 6 of this outline].

Research Paper must focus on any aspect of population health, and the role of the community in strengthening the wellbeing of fellow citizens. In essence, you are asked to focus on any community organization in Canada that is dedicated to helping others by providing material/nonmaterial assistance, and promoting the wellbeing of the community. The paper must address the following key issues:

- 1) Main purpose, and activities of the organization, and how does the particular organization fulfill these needs, and who are beneficiaries?
- 2) How does the organization contribute to the overall wellbeing and health of the service recipients?

- 3) How does the organization promote **social cohesiveness** among clients, and between clients and the community (i.e. bonding social capital).
- 4) How important is the service provided by this organization for the larger community?
- 5) Sources of funding—community/government (municipal/provincial/federal), and other contributions (i.e., charitable donations, membership fees and endowments),
- 6) Obstacles to their activities, and how they perceive the future role of the organization,
- 7) What policy alternatives would you propose to address the problem that the organization deals with?

Class Presentation: (June 6th and 7th): The class presentation is a preliminary discussion of your paper. After the class presentation, you have the opportunity to further improve it before submitting the final paper. To facilitate a constructive discussion, it is recommended that a brief outline of the paper to be distributed prior to the class presentation. **The class presentation is a valuable opportunity to put together a cohesive analysis on your topic. You are encouraged to discuss your topic with the instructor.**

Final Paper is due on: June 14, 2019 (maximum 10 typed pages, minimum 7 pages).

V. CLASS SCHEDULE:

April, 26 & 27 - Introduction to Course Material

- Introduction (MPA 853): Discuss the program, objectives, and materials.
- Understand the overall objectives of the course and how to achieve them.

May 13 – 17 - Individual Risks and Social Determinants of Health: Why Population Health?

- Theoretical and methodological parameters of population health: *Converging biology and sociology*
- Sick individuals and sick populations: *Why population health approach seems more logical*
- Epidemiological transition and social epidemiology: *Your position on the socioeconomic ladder predicts your longevity and health status during a lifetime*
- Absolute income vs. relative income: *Social gradient of mortality, mechanisms and pathways to chronic diseases (hypertension, diabetes, obesity, and memory impairment)*
- Theoretical models of work and level of control: *Risk of coronary heart disease*
- Fetal and early childhood development: *Epigenetic adaption and the life-course perspective of health*
- Racism, discrimination and health disparities: *Epidemics of obesity, metabolic syndrome and depression in marginalized communities*
- A model of intervention and coping strategies: *Actions that help the brain change itself*
 - *social support and networks [e.g., Alameda County study]*
 - *regular physical activity [e.g. Erickson, et. al. 2011]*
 - *mindfulness and biofeedback [e.g., Harvard Center for Mindfulness Therapy]*
 - *finding meaning and purpose (eudemonism) modulate the neuroendocrine response to stress*

Required Readings:

***The required readings provide specific materials on topics to be discussed for each week in the course, and the additional reading list at the end of this outline provides more general discussion on these topics.**

G. Rose, “Sick Individuals and Sick Populations,” *Bulletin of the World Health Organization*, 2001, Vol. 79 (10), pp. 990-996.

N. E. Adler and K. Newman, “Socioeconomic Disparities in Health: Pathways and Policies,” *Health Affairs*, 2002, Vol. 21: 60-76.

N. Halfon, et al, “Lifecourse Health Development: Past, Present and Future,” *Maternal and Child Health Journal*, 2014, Vol. 18:344-365.

D. Dorling, “The Mother of Underlying Causes—Economic Ranking and Health Inequality,” *Social Science and Medicine*, 2015, Vol.128, pp.327-330.

D. A. Notterman and C. Mitchell, “Epigenetics and Understanding the Impact of Social Determinants of Health,” *Pediatr Clin North Am.* 2015, 62(5): 1227–1240

S. Hewa, “Socioeconomic Status and Stress: Neuroendocrine Pathways to Disease,” *Galle Medical Journal*, 2018, Vol. 23: 19-24.

- M. Hajizadeh, et al., "Socioeconomic gradient in health in Canada: Is the gap widening or narrowing?" *Health Policy*, 2016, Vol. 120: 9, 1040-1050.
- P. Kima, et al., "Effects of childhood poverty and chronic stress on emotion regulatory brain function in adulthood," 2013 *Proceedings of the National Academy of Sciences of the United States of America*, Vol.110, 46: 18442–18447.
- P. Gluckman and M. A. Hanson, "Developmental Origins of Disease Paradigm: A Mechanistic and Evolutionary Perspective," 2004, *Pediatric Research*, Vol. 56, No.3:311-17.
- K. M. Godfrey, K. A. Lillycrop, G. C. Burge, et al. "Epigenetic Mechanism and the Mismatch Concept of the Developmental Origins of Health and Disease," *Pediatric Research*, 2007, Vol. 61:5-9.
- R. G. Wilkinson, "The Epidemiological Transition: From Material Scarcity to Social Disadvantage?" *Daedalus, Journal of the American Academy of Arts and Sciences*, 1994, Vol. 123(4): 61-77.
- S. Hewa, "Theories of Disease Causation: Social Epidemiology and Epidemiological Transition," *Galle Medical Journal*, 2015, Vol. 20, No.2, pp. 24-30.
- J. Lomas, "Social Capital and Health: Implications for Public Health and Epidemiology," *Social Science and Medicine*, 1998, Vol. 47, No. 9, pp.1181-1188
- I. Kawachi and B. P. Kennedy, "Income Inequality and Health: Pathways and Mechanisms," *Health Services Research*, 1999, Vol. 34, No. 1, pp. 215-227.
- I. Kawachi, B. P. Kennedy, K. Lochner, and D. Prothrow-Stith, "Social Capital, Income Inequality and Mortality," *American Journal of Public Health*, 1997, Vol. 87, No. 9, pp.1491-1498.
- S. Hewa and B. Liu, "Epidemiological Transition and Population Health: Understanding Social Determinants of Health in China," *Illness, Crisis & Loss*, 2018 26, 3: 223-46.
- L. F. Berkman, "Social Epidemiology: Social Determinants of Health in the United States: Are We Losing Ground?" *Annual Review of Public Health*, 2009, Vol. 30:27-41.
- L. F. Berkman, "The Role of Social Relations in Health," *Psychosomatic Medicine*, 1995, Vol. 57:245-54.
- C. Power, C. Hertzman, "Social and Biological Pathways Linking Early Life and Adult Disease," *British Medical Bulletin*, 1997, Vol. 53, No.1, pp. 210-221.
- Erickson, K. I., et al., "Exercise training increases size of hippocampus and improves memory," *Proc. Natl. Acad. Sci. USA*, 2011, Vol. 108:3017-3022.
- E. D. Carlson, and R. M. Chamberlain, "Allostatic load and health disparities," *Research in Nursing and Health*, 2005, Vol. 28:306-315.
- E. Regidor, Social Determinants of Health: A Veil that hides Socioeconomic position and its relations with health," *Journal of Epidemiology and Community Health*, 2006, Vol. 60, pp. 896-901.

June 3 - 5 – Social Capital And Health, Pathways of Social Determinants Leading to Health

- The civic community, social capital and its key components: *Social capital as a interface between community and social determinants and population health [bridging and bonding connectivity]*
- Evidence of social integration and appropriate risk management/increased longevity: *Mechanisms and pathways [oxytocin, empathy and PTSD]*
- Models of collaborative partnership in delivering care and welfare: *Private-public and public-nonprofit partnerships in care and welfare*
- Models of public policies in population health promotion:
 - Donald Acheson Commission of the United Kingdom
 - WHO Commission on Social Determinants of Health
 - MacArthur Foundation Research Network of the United States, Reaching for Healthier Life
 - The World Bank, Public Policy and the Challenge of Chronic Non-communicable Diseases

Required Readings:

- G. Kritsotakis and E. Gamarnikow, "What is social capital and how does it relate to health?" *International Journal of Nursing Studies* 41 (2004), pp. 43–50.

- E. A. Gage, "Social networks of experientially similar others: Formation, activation, and consequences of network ties on the health care experience," *Social Science & Medicine*, 2013: 95: 43-51.
- A. Mahamoud, et al., "Modelling the social determinants of health and simulating short-term and long-term intervention impacts for the city of Toronto, Canada," *Social Science & Medicine* 93 (2013) 247e255.
- L. M. Salamon, "The Rise of the Nonprofit Sector," *Foreign Affairs*, 1994, Vol. 73 No. 4: pp. 109-22.
- N. Pearce and G. D. Smith, "Is social Capital the Key to Inequalities in Health?" *American Journal of Public Health*, 2003, Vol. 93, No.1,
- S. Abbott and D. Freeth, "Social Capital and Health, Starting to Make Sense of the Role of Generalized Trust and Reciprocity," *Journal of Health Psychology*, 2008, Vol.13, No. 7, pp. 874-883.
- F. E. Baum and A. M. Ziersch, "Social Capital," *Journal of Epidemiology and Community Health*, 2003:57, 320-323.
- C. Bambra, M. Gibson, A. Sowden, K. Wright, M. Whitehead, and M. Petticrew, "Tackling the wider social determinants of health and health inequalities: evidence from systematic reviews," *Journal of Epidemiology and Community Health*, 2010, Vol. 64, 284-291.
- L. F. Berkman, 1995 "The Role of Social Relations in Health Promotion," *Psychosomatic Medicine*, 57:245-54.
- M. Perry, R. L. Williams, N. Wallerstein and H. Waitzkin, "Social Capital and Health Care Experiences Among Low-Income Individuals," *American Journal of Public Health*, 2008:98, 330-336.
- K. Viswanath, W. R. Steel and J. R. Finnegan, "Social Capital and Health: Civic Engagement, Community Size, and Recall of Health Messages," *American Journal of Public Health*, 2006:96, 1456-1461.
- F. J. Elgar, "Income Inequality, Trust, and Population Health in 33 Countries," *American Journal of Public Health*, 2010:100, 2311-2315.
- M. Winkleby, C. Cubbin and D. Ahn, "Effect of Cross-Level Interaction Between Individual and Neighborhood Socioeconomic Status on Adult Mortality Rates," *American Journal of Public Health*, 2006:96, 2145-2153.
- R. Wilkinson and K. E. Pickett, "Income Inequality and Population Health. A review and Explanation of Evidence," *Social Science and Medicine*, 2006:62, 1768-1784.
- R. Wilkinson and K. E. Pickett, "The Problem of Relative deprivation: Why some societies do better than others," *Social Science and Medicine*, 2007:65, 1965-1978.
- B. Hölzel, et al., "Mindfulness practice leads to increases in regional brain gray matter density," *Psychiatry Research*, 2011, 191(1): 36-43.
- Yoshizawa, R. S. "The Barker hypothesis and obesity: Connections for transdisciplinarity and social justice," *Social Theory & Health*, 2012, Vol. 10: 4, 348-367.
- The John D. and Catherine T. MacArthur Foundation Research Network on Socioeconomic Status and Health, *Reaching for a healthier life, facts on socio-economic status and health in the US*, 2010, University of California, San Francisco.
- D. Acheson, "Commission of the United Kingdom, Independent Inquiry into inequalities in health report," 1998, United Kingdom, Department of Health.
- WHO, "Closing the gap in a generation, World Health Organization's Commission on Social Determinants of Health," 2008, Geneva.
- World Bank, "Public Policy and the Challenge of Chronic Non-communicable Diseases," 2007, Washington, DC.

June 6 & 7: Student Presentations:

June 14: [Submission of Final Paper]

Academic Integrity is constituted by the five core fundamental values of honesty, trust, fairness, respect and responsibility (see www.academicintegrity.org). These values are central to the building, nurturing and sustaining of an academic community in which all members of the community will thrive. Adherence to the values expressed through

academic integrity forms a foundation for the "freedom of inquiry and exchange of ideas" essential to the intellectual life of the University (see the Senate Report on Principles and Priorities <http://www.queensu.ca/secretariat/policies/senate/report-principles-and-priorities>).

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments conform to the principles of academic integrity. Information on academic integrity is available in the Graduate Studies Calendar (http://www.queensu.ca/calendars/sgsr/Academic_Integrity_Policy.html). Departures from academic integrity include plagiarism, use of unauthorized materials, facilitation, forgery and falsification, and are antithetical to the development of an academic community at Queen's. Given the seriousness of these matters, actions which contravene the regulation on academic integrity carry sanctions that can range from a warning or the loss of grades on an assignment to the failure of a course to a requirement to withdraw from the university.

Disability Accommodations statement

The following statement on disability accommodations builds on a definition approved by Senate that clearly articulates both the commitment that Queen's University has to facilitating the integration of students with disabilities into the University community and the responsibility that students with disabilities have to identify needs requiring accommodation. All educators are encouraged to add the following statement to their course syllabi provided by the Queen's University Equity Office (<http://www.queensu.ca/equity/accessibility/policystatements/accommodation-statement>)

Queen's University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you are a student with a disability and think you may need accommodations, you are strongly encouraged to contact Student Wellness Services (SWS) and register as early as possible. For more information, including important deadlines, please visit the Student Wellness website at: <http://www.queensu.ca/studentwellness/accessibility-services/>

VI. A LIST OF ADDITIONAL READINGS:

- Adler, N. et al., "Rigor, vigor, and the study of health disparities," *Proceedings of the National Academy of Sciences* (PNAS), 2012, 109:17154-17159.
- Aronowitz, R. A. "Framing disease: an underappreciated mechanism for the social patterning of health." *Social Science & Medicine*, 2008, 67(1), 1-9.
- Bartolini, S. and Sarracino, F., "The Dark Side of Chinese Growth: Declining Social Capital and Well-Being in Times of Economic Boom," *World Development*, 2015, 74:333-351.
- Berkman, L. F. and Kawachi, I., "A Historical Framework for Social Epidemiology," In Berkman, L. F. and Kawachi, I. (eds.) *Social Epidemiology*, Oxford University Press, New York, 2000, pp. 3-12.
- Berkman, L. F. "Social support, social networks, social cohesion, and health." *Social Work in Health Care*, 2000, 32(2), 3-14.
- Berkman, L. F. et al., "Social integration and mortality: a prospective study of French employees of Electricity company of France-Gas, France: The GAZEL cohort," *American Journal of Epidemiology*, 2004, 159:167-174.
- Berkman, L. F. and Syme, S. L., "Social Networks, host resistance and mortality: a nine year follow-up study of Alameda County residents," *American Journal of Epidemiology*, 1979, 109: 186-204.
- Braveman, P. B., "Accumulating knowledge on the social determinants of health and infectious disease," *Public Health Reports*, 2011, 126:28-30.
- Brunner, E. J., "Toward a New Social Biology," In Berkman, L. F. and Kawachi, I. (eds.) *Social Epidemiology*, Oxford University Press, New York, 2000, pp. 306-31.
- Bynum, W.F., et al., *The western medical tradition 1800 to 2000*, Cambridge University Press, London, 2006, pp. 103-230.
- Canadian Institute for Health Information, "Factors Influencing Health," 2013. Ottawa, Canada.
- Carpiano, R. M., "Towards a neighbourhood resource-based theory of social capital for health: Can Bourdieu and sociology help?" *Social Science and Medicine*, 2006, 62:165-75.

- Carpiano, R. M., "Neighbourhood social capital and adult health: An Empirical test of Bourdieu-based model," *Health and Place*, 2007, 13:693-655.
- Carpiano, R. M. and Fitterer, L. M., "Questions of trust in health research on social capital: What aspects of personal network social capital do they measure?" *Social Science & Medicine*, 2014, 116:225-234.
- Carpiano, R. M. and Kelly, B. C., "What would Durkheim do? A comment on Kushner and Sterk's "The limit of social capital: Durkheim, suicide, and social cohesion." *American Journal of Public Health*, 2005, 95:2120-2121.
- Carlson, E. D. and Chamberlain, R. M. "Allostatic load and health disparities: A Theoretical Orientation," *Research in Nursing & Health*, 2005:28-306-315.
- Danese, A. and McEwen, B.S., "Adverse childhood experiences, allostasis, allostatic load, and age-related disease," *Physiology & Behavior*, 2012, 106: 29-39.
- Drèze, J. and Sen, A., 2013 *An Uncertain Glory, India and its contradictions*, Princeton, Princeton University Press.
- Fullwiley, D. "Out from under the skin: Disease etiology, biology and society: A commentary on Aronowitz," *Social Science & Medicine*, 2008, 67 14-17.
- Goldstein, S. D., "Stress, Allostatic Load, Catecholamines, and Other Neurotransmitters in Neurodegenerative Diseases," *Cell. Mol. Neurobiol.*, 2012 32:661-666.
- Hewa, S., "Physicians, the Medical Profession, and Medical Practice," In Bolaria, B. S. and Dickinson, H. D. (eds.) *Health, Illness and Health Care in Canada*, Toronto: Nelson, Thomson Learning, 2002, pp. 145-89.
- Hewa, Soma and Darwin H. Stapleton, 2005 *Globalization, Philanthropy, and Civil Society: Toward a New Political Culture in the Twenty-First Century*, Springer: New York.
- Kawachi, I. and Berkman, L. F., 2003, *Neighborhoods and Health*, New York, Oxford University Press.
- Kawachi I et al. (2000). "Social cohesion, social capital and health," In: Kawachi I, Berkman L, eds. *Social epidemiology*. New York, Oxford University Press:174-190.
- Kawachi, I., Kim, D., Coutts, A., & Subramanian, S. V., "Commentary: Reconciling the three accounts of social capital." *International Journal of Epidemiology*, 2004, 33:682-690.
- Kawachi, I., et al., (eds.) "Social Capital and Health: A decade of Progress and Beyond," In Kawachi, I., Subramanian, S. V. and Kim, D. *Social Capital and Health*, Springer, New York, 2008, pp. 1-26.
- Kunitz, S. J., 2007, *The Health of Populations: general theories and particular realities*, New York, Oxford University Press.
- Larson, J., "Cancer leading cause of death in China," *Earth Policy Institute*, 2011, pp.1-4.
- Mackenbach, J. P., "Socio-economic inequalities in health in Western Europe" In J. Siegrist and M. Marmot (eds.) *Social inequalities in health*, Oxford, Oxford University Press, 2006, pp. 154-70.
- Marmot, M. G. and Shipley, M. J., "Do Socio-economic Differences in Mortality Persist After Retirement? 25 year follow up of civil servants from the first Whitehall study," *British Medical Journal*, 1996, 313: 1177-80.
- Marmot, M. and Wilkinson, R. G., "Psychosocial and material pathways in the relation between income and health: A response to Lynch et al." *British Medical Journal*, 2001, 322:1233-6.
- Marmot, M. (2004). *Status syndrome: How your social standing directly affects your health and life expectancy*. London: Bloomsbury.
- Marmot, M. G., et al., "Biological and behavioural explanations of social inequalities in coronary heart disease: the Whitehall II study," *Diabetologia*, 2008, 51:1980-8.
- McKeown, T., 1979 *The Role of Medicine: Dream, Mirage or Nemesis?* London: Nuffield Hospital Trust.
- McEwen, B. S., and Gianaros, P. J., "Central role of the brain in stress and adaptation: links to socioeconomic status, health, and disease," *Ann. NY. Acad. Science*, 2010, 1186:190-222.
- McEwen, B. S., and Gianaros, P. J., "Stress- and Allostatic-Induced Brain Plasticity," *Annual Review of Medicine*, 2011, 62:431-45.
- McEwen, B. S., Gray, J. D., and Nasca, C., "Recognizing resilience: Learning from the effects of stress on the brain," *Neurobiology of Stress*, 2015, 1:1-11.
- Prus, S. G., "Comparing social determinants of self-rated health across the United States,

and Canada,” *Social Science & Medicine*, 2011,73: 50-59.

Public Health Agency of Canada, “*Strategies for Population Health*,” 2013, Government of Canada, Ottawa.

Public Health England, *Childhood Obesity: A Plan for Action*, London, 2016, HM Government of the United Kingdom.

Public Health England, *Global Health Strategy*, 2014 to 2019, London, HM Government of the United Kingdom.

Putnam, R. D., 2000 *Bowling Alone: The Collapse and Revival of American Community*, New York: Simon & Schuster, p. 331.

Salamon, L. M., 1994 “The Rise of the Nonprofit Sector,” *Foreign Affairs*, Vol. 73 No. 4: 109-122.

Salamon, L. M. and H. K. Anheier (eds.), 1997 *Defining the Nonprofit Sector: A Cross-National Analysis*, Manchester University Press: Manchester.

Salamon, L. M. and H. K. Anheier, 1992 *Toward an understanding of the international nonprofit sector*, Johns Hopkins University, Institute for Policy Studies, Center for Civil Society Studies: Baltimore.

Salamon, L. M. and H. K. Anheier, 1994 *The emerging nonprofit sector: An overview*, Johns Hopkins University Institute for Policy Studies, Center for Civil Society Studies: Baltimore.

Salamon, L. M. and H. K. Anheier, 1996 *The international classification of nonprofit organizations: ICNPO-revision 1, 1996*, Johns Hopkins University, Institute for Policy Studies, Center for Civil Society Studies: Baltimore.

Salamon, L. M. and H. K. Anheier, 1997 “The civil society sector,” *Social Science and Modern Society*, 34 (2): 60-5.

Sen, A., “Economics and Health,” *The Lancet*, 2000, 354: 20.

Wade, D. T. and Halligan, P. W., “Do biomedical models of illness make for good healthcare systems?” *British Medical Journal*, 2004, 329:1398-1401.

Wilkinson, R. G., 2005 *The Impact of Inequality*, New York, New Press.

Wilkinson, R.G. and Pickett, K. E., “The Problem of relative deprivation: Why some societies do better than others,” *Social Science and Medicine*, 2007, 65: 1965-78.

World Bank, *Toward a Healthy and Harmonious Life in China: Stemming the Rising Tide of Non-Communicable Diseases*, Human Development Unit, East Asia and Pacific Region

2011.

World Health Organization, *Closing the gap in a generation, Commission on Social Determinants of Health*, 2008, WHO, Geneva.

Yip, W., et al., “Does social capital enhance health and well-being? Evidence from rural China,” *Social Science & Medicine*, 2007, 64: 35–49