

11 December 2016 [subject to change and amendment without notice]

**Course Outline for Economics 3Z03, Health Economics, Winter Term, 2016-2017**

**Instructor:** David Feeny, PhD; Office: KTH 437, Telephone: 905 525 9140, ext. 24527; E-Mail: [feeny@mcmaster.ca](mailto:feeny@mcmaster.ca)

Please put Econ 3Z03 in subject heading of any e-mail messages that you send to me; I will only respond to e-mail messages sent from a McMaster e-mail account.

**Class Meeting:**

Tuesdays, Thursdays, and Fridays: 11:30 am - 12:20 pm, Chester New Hall 106

**Office Hours**, 05 January - 06 April, 2017: Tuesdays: 10:00 - 11:00 am; Thursdays 1:00 - 2:00 pm; or by appointment. [Note: No office hour Thursday 19 January.] From time to time I may need to cancel specific office hours; please see announcements on Avenue to Learn.

**Teaching Assistant:** Valerie Ulep, Communications Research Laboratory Room 204A; [ulepvg@mcmaster.ca](mailto:ulepvg@mcmaster.ca)

**Teaching Assistant's Office Hours:** Fridays 9:00am - 11:00 am; or by appointment

From the University Calendar: "ECON 3Z03 - Health Economics; 3 unit(s)

Analysis of allocation of resources in health care. Topics include markets for health care, insurance, biomedical research, technology assessment, organization and public policy. Three lectures; one term

Prerequisite: ECON 2G03 or ECON 2X03. ECON 2B03 or another course in statistics is recommended.

Last day to drop/add a course: Thursday 12 January 2017.

Last day to **withdraw without penalty**: Friday 10 March 2017.

**Purpose and Objectives of Course.** The purpose of this course is to give you an understanding of the economics of health and healthcare, with an emphasis on the Canadian context. This is mainly a course in applied microeconomics in which we will examine the production of health status, the demand for and supply of healthcare services, and the special attributes of healthcare markets and the implications of those attributes for the financing, funding, organization, and delivery of healthcare services. We will be considering major extensions of standard neoclassical microeconomic theory to consider the consequences of externalities, risk, imperfect information, asymmetries of information, and institutional arrangements. We will also examine issues of efficiency, equity and applied welfare economics and the determinants of health.

**Course Objectives:** Major objectives of the course include a better understanding of analytical tools and the role of institutional arrangements in affecting performance and behaviour in the health sector and an improved ability to apply ideas from microeconomics. By the end of the course students should have developed a better understanding of the economic and non-economic factors that affect health status, a better understanding of the determinants of market success and market failure and the role of institutional arrangements, an enhanced appreciation of the application of microeconomic theory, and have enhanced their analytical and quantitative analysis skills in assessing evidence relevant to testing hypotheses about economic behaviour.

### Determination of Marks

Students will be evaluated on the basis of their written work on the five problem assignments, the midterm and final examinations and the critical review. The final mark will be a weighted average of the marks on the written exercises with the weights given as follows:

Problem Sets	10%; Five worth 2 points each; assigned periodically
Mid-term Examination	20%, Friday 03 March 2017; Michael G. DeGroot Centre for Learning and Discover, Room 1110
Critical Review	40%, due no later than Friday 17 March 2017
Final Examination	30%

**Problem Sets.** Periodically short-answer problem sets and their due date will be posted on the *Avenue to Learn*, <http://avenue.mcmaster.ca/>. These will consist short-answer problems or questions. The questions listed at the end of chapters in the textbook for the course, Jeremiah E. Hurley, *Health Economics*, First Edition. McGraw-Hill Ryerson, Ltd., 2010, are examples of the kinds of problems that will be assigned. Students are encouraged to use graphs in formulating their answers as appropriate.

Eight sets of problems will be distributed. Your marks for the best five will count towards your grade. **You must submit your problem assignments through the Drop Box on Avenue to Learn.** Your mark will be posted on Avenue to Learn at least one week after the deadline.

**Examinations** will consist of essay questions, both long- and short-answer questions. Students will be responsible on examinations for material found in the **Assigned Reading** and material covered in class. Students are encouraged to read some of the materials listed under **Enrichment** but will not be expected to have read that material for purposes of examination. The final examination will be comprehensive; it will include material from throughout the course with an emphasis on material covered since the mid-term examination. Students are **permitted to bring a single page** (216 mm by 279 mm or 8.5 inches by 11 inches) to examinations; otherwise examinations will be closed book. Cell phones and calculators will not be permitted. The single page can be hand written or typed; students can use one or both sides of the page.

Both for the short-answer and long-answer essay questions on the examinations, I typically list several in each category and allow students to choose the question(s) they wish to answer. Selecting questions for which the student is well prepared is one of the factors that contributes to successful outcomes. I also recommend that students take a few minutes to outline their answers before composing their answers.

If you miss the mid-term examination, you will not receive a mark unless you complete *The McMaster Student Absence Reporting Form – MSAF* within **five** business days of the test date. Students must take their documentation to their faculty Associate Dean's Office or Program Office and file a *Permission to use MSAF*; <https://pinjap01.mcmaster.ca/msaf/offline.jsp> In the event that a student misses the mid-term examination for a legitimate and verifiable reason, the weight of the missed examination will be added to the weight of the final examination.

**Critical Review.** In the Critical Review the student will assess the analytical arguments **and** empirical evidence on a behavioural proposition or policy analysis about the economics of health or healthcare found in a particular article, book, or report. The Critical Review should be less than or equal to 1,250 words (approximately 5 pages, typed and double-spaced). (If the review or portions of it are to be submitted as part of the course requirements for another course, prior approval of both instructors concerned is necessary.) Please number your pages in your critical review.

Works listed at the end of the chapters in the textbook and listed under **Enrichment** provide examples of possible sources and topics. Students are, however, also encouraged to identify alternative sources and topics. The critical review need not be on a topic relating to the Canada or the Canadian healthcare system.

A **Proposal** listing the behavioural proposition to be studied (example: the demand for health-care services is inelastic with respect to price) and the article, book, or report to be critically reviewed are due by Friday 03 February 2017. Proposals and papers should be double spaced. The review itself is due no later than Friday 17 March 2017. **LATE PAPERS WILL BE PENALIZED!!!** Reviews will **not** be accepted after Thursday April 6, 2017. (If I am not in my office, late reviews may be submitted at the Departmental office, KTH 426; please have a staff member date and time the submission. Do **not** submit hard copy of your paper by slipping it under the door of my office.) A copy of the approved proposal **MUST** be submitted with the critical review. The penalty for late Critical Reviews is 3 points (out of 100) per business day. I will **NOT** accept submission as file attachments to e-mail messages. It is recommended that students **keep a copy** of the version of the critical review that they submit for marking.

Only hard copy submissions are permitted for Proposals and Critical Reviews. These documents **cannot** be submitted on Avenue to Learn.

**Cover Page and Format for Proposal for Critical Review.** In the upper left-hand corner,

single-spaced, on separate lines for **each item listed**: student name; student number; course (Economics 3Z03); your McMaster e-mail address; date; and word count of the body of the text of your review (excluding Cover Page, References, etc.). Then list the author and full bibliographic information (see below and course outline for examples) of the paper(s) or other work that you intend to review. Then in a separate paragraph please provide information on in what you are interested and why you have chosen this topic and paper. That information will help me to guide your choice. Please **double-space the text** of your proposal; that will provide me with the space to comment on what you have written.

If you decide to change your topic or the paper (or other work) that is the basis of your Critical Review, you will need to submit a new proposal for approval. You are encouraged to begin work on your Critical Review long before the March 17<sup>th</sup> deadline for submitting your paper. Proposals for a change in topic or paper will **not** be accepted after Friday 10 March.

The Critical Review should **not** primarily be a summary of the evidence and conclusions presented in the reference consulted. In a sense the critical review will provide a brief explicit summary of the work being reviewed or an “indirect” summary in that the major contributions of the work being reviewed will be discussed.

Proper footnoting and attribution of ideas and evidence are required. A variety of citation styles are acceptable. Regardless of style the following information **must** be listed for journal articles: Author(s), Title of Article, Title of Journal, Volume, Number (if applicable), Month (if applicable), Year, page numbers. Please also provide a word count for the text of your Critical Review. Please list the first six authors before using “et al.”.

The focus of the Critical Review should be on selecting and motivating an issue and explaining why it is important, assessing the analytical approach and arguments used in the work being reviewed and their relevance to the issue, examining the empirical evidence provided in the work being reviewed and its relevance to the issue at hand, and finally statements concerning what may or may not be concluded on the basis of the analysis and evidence provided and recommendations for future research. The issue for investigation will need to be carefully matched to the reading selected. Success on the assignment will depend in part on topic selection and the selection of a suitable work for critical review. Textbooks in general make poor choices for the Critical Review. Essays in *Wikipedia* are not eligible for the critical review. Peer-reviewed publications are, in general, the most suitable type of publications for your Critical Review. Typically review articles are poor candidates for the Critical Review.

Examples of several formats for the Critical Review proposal (“Examples for Critical Review...”) and outlines for several types of Critical Reviews are posted on Avenue to Learn. Tips on word choice and improving your exposition are also posted on Avenue to Learn (“Comments on Exposition...”).

**Cover Page for Critical Review.** In the upper left-hand corner, single-spaced, on separate lines

for **each item listed**: student name; student number; course (Economics 3Z03); your McMaster e-mail address; date; and word count of the body of the text of your review (excluding Cover Page and References). Then list the author and full bibliographic information for the paper or other work that you intend to review.

**Lectures.** Lectures will be a mix of formal presentation, including both slides and handwritten notes on the board, and classroom discussion. Students will be given the opportunity to ask questions during class. I will try to remember to put an outline for each day's lecture in a corner on the board.

**Avenue to Learn.** <http://avenue.mcmaster.ca/>. As noted above, problem set assignments will be posted on Avenue to Learn. In addition, background documents for the Critical Review are posted there. Typically slides presented in class that **do not** come from the textbook will also be posted. The plan is to post grades as well. Please use the Drop Box on Avenue to Learn only for the problems assignments. Do **not** e-mail me through Avenue to Learn.

**Etiquette.** Please read the course outline (and documents posted on Avenue to Learn) carefully before e-mailing me with questions about the course. In recent year the answers to many of the questions that students have sent to me can readily be found in the course outline or related course documents.

**Academic Integrity.** Any work that you turn in for grades must be your own. There are two McMaster University Senate policies that together outline how the autonomy of your work is protected and how those who do not earn their marks will be adjudicated: **Academic Integrity Policy** (<http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicIntegrity.pdf>) and **Student Code of Conduct** (<http://www.mcmaster.ca/policy/Students-AcademicStudies/StudentCode.pdf>).

**Textbook.** Jeremiah E. Hurley, *Health Economics*, First Edition. McGraw-Hill Ryerson, Ltd., 2010. ISBN 978-0-07-091648-7.

Web site for textbook: <http://www.mheducation.ca/olc/hurley/>

## **Enrichment**

Robert B., Evans, *Strained Mercy: The Economics of Canadian Health Care*. Toronto: Butterworth & Co. (Canada) Ltd., 1984.

Although dated, Evans (1984) is a valuable resource.

Assigned and enrichment readings are listed below. It is recommended that you read the assigned reading for a topic **before** the lecture(s) on that topic. Unless otherwise specified, the appendices to chapters are **included** in the assigned reading. Items listed as **Enrichment** are provided for

those who wish to investigate a particular topic in more depth; in some cases items listed as Enrichment as used as source material for lectures. Many papers could be listed as enrichment for more than one topic but, for the most part, are not listed for every topic for which the paper is relevant. Note that on occasion I will ask you to review song lyrics which highlight issues or principles discussed in the course.

**Week 1, 04 - 06 January 2017; Health and Health Care Systems: An Introduction; Assigned Reading,** Hurley (2010), Preface and Chapter 1

Resource Endowments; Technology; Preferences; Institutions  
Organization of the Canadian Healthcare System

### **Enrichment**

*Canada's Health Care System:*

<http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>

*National Health Expenditures:*

<http://www.cihi.ca/CIHI-ext-portal/internet/EN/SubTheme/spending+and+health+workforce/spending/cihi015954>

Organization for Economics Cooperation and Development, *Health at a Glance:*

<http://www.oecd.org/health/health-systems/health-at-a-glance.htm>

Gregory P. Marchildon, "Canada: Health system review." *Health Systems in Transition*, Vol. 15, No. 1, 2013. European Observatory on Health Systems and Policies.

<http://www.euro.who.int/en/about-us/partners/observatory/publications/health-system-reviews-hits>

Gregory P. Marchildon, *Health Systems in Transition: Canada*. Second Edition. Toronto, University of Toronto Press, 2013.

**Week 2, 09 - 13 January; Efficiency and Equity; Assigned Reading,** Hurley (2010), Part One and Chapter 2

### **Enrichment**

Asada, Yukiko, George Kephart, "Equity in health services use and intensity of use in Canada." *BMC Health Services Research*, Vol. 7, No. 41, published online March 11, 2007;

<http://www.biomedcentral.com/1472-6963/7/41>

**Week 3, 16 - 20 January; The Basics of Markets; Assigned Reading,** Hurley (2010), Chapter 3

**Week 4, 23 - 27 January; Individual-Level Demand for and Production of Health; Assigned Reading, Hurley (2010), Part Two and Chapter 5**

### **Enrichment**

Barrera, Albino, "The Role of Maternal Schooling and its Interaction with Public Health Programs in Child Health Production." *Journal of Development Economics*, Vol. 32, No. 1, January, 1990, pp 69-91.

Becker, Gary S., "Nobel Lecture: The Economic Way of Looking at Behavior." *Journal of Political Economy*, Vol. 101, No. 3, June, 1993, pp 385-409.

Becker, Gary S., and Kevin M. Murphy, "A Theory of Rational Addiction." *Journal of Political Economy*, Vol. 96, No. 4, August, 1988, pp 675-700.

Becker, Gary S., Michael Grossman, and Kevin M. Murphy, "An Empirical Analysis of Cigarette Addiction." *American Economic Review*, Vol. 84, No. 3, June, 1994, pp 396-418.

Bernheim, B. Douglas, and Antonio Rangel, "Addiction and Cue-Triggered Decision Processes." *American Economic Review*, Vol. 94, No. 5, December 2004, pp 1558-1590.

Eng, Ken, and David Feeny, "Comparing the Health of Low Income and Less Well Educated Groups in the United States and Canada," *Population Health Metrics*, (electronic journal: <http://www.pophealthmetrics.com/content/5/1/10>), 5:10, 2007. DOI: 10.1186/147-7954-5-10. Published on-line October 16, 2007.

Feeny, David, "A Utility Approach to the Assessment of Health-Related Quality of Life." *Medical Care*, Vol. 38, No. 9, Supplement II, September, 2000, pp II-151 - II-154.

**Week 5, 30 January - 03 February; The Nature of Health Care as an Economic Commodity; Assigned Reading, Hurley (2010), Part Three and Chapter 7**

Before class please listen to this to song. In class we will discuss briefly the interpretation and implications of the lyrics.

Janis Joplin, Michael McClure, and Bob Neuwirth, 1970, *Mercedes Benz*

<http://www.youtube.com/watch?v=7tGuJ34062s>

Performed by Janis Joplin

**Proposal for Critical Review due no later than 03 Friday February 2017**

### **Enrichment**

Arrow, Kenneth J., "Uncertainty and the Welfare Economics of Medical Care." *American Economic Review*, Vol. 53, No. 5, December, 1963, 941-973.

Kent, David M., Peter M. Rothwell, John P.A. Ioannidis, Doug G. Altman, and Rodney A. Hayward, "Assessing and reporting heterogeneity in treatment effects in clinical trials: a proposal." *Trials*, published online 12 August 2015; <http://www.trialsjournal.com/content/11/1/8>

Soumerai, Stephen B., Dennis Ross-Degnan, Jerry Avorn, Thomas J. McLaughlin, and Igor Choodnovskiy, "Effects of Medicaid Drug-Payment Limits on Admission to Hospitals and Nursing Homes." *New England Journal of Medicine*, Vol. 325, No. 15, 1991, pp 1072-1077.

Soumerai, Stephen B., Thomas J. McLaughlin, Dennis Ross-Degnan, Christina S. Casteris, and Paola Bollini, "Effects of Limiting Drug-Reimbursement Benefits on the Use of Psychotropic Agents and Acute Mental Health Services by Patients with Schizophrenia." *New England Journal of Medicine*, Vol. 331, No. 10, September 8, 1994, pp 650-655.

Soumerai, Stephen B., Dennis Ross-Degnan, Eric Fortess, and Bryan L. Walser, "Determinants of Change in Medicaid Pharmaceutical Cost Sharing: Does Evidence Affect Policy?" *Milbank Quarterly*, Vol. 75, No. 1, pp 11-33.

Study to Prospectively Evaluate Reamed Intramedullary Nails in Patients with Tibial Fractures (SPRINT) Investigators, "Randomized Trial of Reamed and Unreamed Intramedullary Nailing of Tibial Shaft Fractures." *Journal of Bone and Joint Surgery*, Vol. 90, No. 12, December, 2008, pp 2567-2578.

**Week 6, 06 - 10 February; The Demand for Health Care and The Demand for Health Care Insurance; Assigned Reading**, Hurley (2010), Chapters 8 and 9

### **Enrichment**

Manning, Willard G., Joseph P. Newhouse, Naihua Duan, Emmett B. Keeler, Arleen Leibowitz, and M. Susan Marquis, "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment." *American Economic Review*, Vol. 77, No. 3, June, 1987, pp 251-277.

Nyman, John A., "The Economics of Moral Hazard Revisited." *Journal of Health Economics*, Vol. 18, No. 6, December, 1999, pp 811-824.

Nyman, John A., "The value of health insurance: the access motive." *Journal of Health Economics*, Vol 18, No. 2, April, 1999, pp 141-152.

Stabile, Mark, "Private insurance subsidies and public health care markets: evidence from Canada." *Canadian Journal of Economics*, Vol. 34, No. 4, November, 2001, pp 921-942.



Wang, Chao, Qing Li, Arthur Sweetman, and Jeremiah Hurley, "Mandatory universal drug plan, access to health care and health: Evidence from Canada." *Journal of Health Economics*, Vol. 44, pp 80-96, published online 19 August 2015.

**Week 7**, 13 - 17 February; **Private Insurance Markets; Assigned Reading**, Hurley (2010), Chapter 10

### **Enrichment**

Akerlof, George A., "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism." *Quarterly Journal of Economics*, Vol. 84, No. 3, August, 1970, pp 488-500.

Tamblyn, Robyn, Rejean Laprise, James A. Hanley, Michael Abrahamowicz, Susan Scott, Nancy Mayo, Jerry Hurley, Roland Grad, Eric Latimer, Robert Perreault, Peter McLeod, Allen Huang, Pierre Larochelle, and Louise Mallet, "Adverse Events Associated with Prescription Drug Cost-Sharing Among Poor and Elderly Persons." *Journal of the American Medical Association*, Vol. 285, No. 4, January 24/31, 2001, pp 421-429.

**Break Week**, 20 - 26 February

**Week 8**, 27 February - 03 March; **The Determinants of Population Health; Assigned Reading**, Hurley (2010), Chapter 6

### **Enrichment**

Hamilton Museum of Steam & Technology National Historic Site:

<https://www.hamilton.ca/attractions/hamilton-civic-museums/hamilton-museum-steam-technology-national-historic-site>

Allin, Sara, and Mark Stabile, "Socioeconomic status and child health: what is the role of healthcare, health conditions, injuries and maternal health?" *Health Economics, Policy and Law*, Vol. 7, No. 2, April, 2012, pp 227-242.

Allin, Sara, Erin Graves, Michel Grignon, Diana Ridgeway, and Li Wang, "Health-adjusted potential years of life lost due to treatable causes of death and illness." *Health Reports*, Vol. 25, No. 8, August, 2014, pp 3-9.

Buckley, Neil J., Frank T. Denton, A. Leslie Robb, and Byron G. Spencer, "The transition from good to poor health: an econometric study of the older population." *Journal of Health Economics*, Vol. 23, No. 5, September, 2004, pp 1013-1034.

Case, Anne, Darren Lubotsky, and Christina Paxson, "Economic Status and Health in Childhood:

The Origins of the Gradient.” *American Economic Review*, Vol. 92, No. 5, December, 2002, pp 1308-1334.

Chen, Edith, Andrew D. Martin, and Karen A. Matthews, “Socioeconomic status and health: Do gradients differ within childhood and adolescence?” *Social Science & Medicine*, Vol. 62, No. 9, May, 2006, pp 2161-2170.

Condliffe, Simon, and Charles R. Link, “The Relationship between Economic Status and Child Health: Evidence from the United States.” *American Economic Review*, Vol. 98, No. 4, September, 2008, pp 1605-1618.

Contoyannis, Paul, and Martin Dooley, “The role of child health and economic status in educational, health, and labour market outcomes in young adulthood.” *Canadian Journal of Economics*, Vol. 43, No. 1, February, 2010, pp 323-346.

Contoyannis, Paul, and Andrew M. Jones, “Socio-economic status, health and lifestyle.” *Journal of Health Economics*, Vol. 23, No. 5, September, 2004, pp 965-995.

Contoyannis, Paul, and Jinhua Li, “The evolution of health outcomes from childhood to adolescence.” *Journal of Health Economics*, Vol. 30, No. 1, January, 2011, pp 11-32.

Currie, Janet, and Mark Stabile, “Socioeconomic Status and Child Health: Why is the Relationship Stronger for Older Children?” *American Economic Review*, Vol. 93, No. 5, December, 2003, pp 1813-1823.

Cutler, David, Angus Deaton, and Adrianna Lleras-Muney, “The Determinants of Mortality.” *Journal of Economic Perspectives*, Vol. 20, No. 3, Summer, 2006, pp 97-120.

Cutler, David M., Genia Long, Ernst R. Berndt, Jimmy Royer, Andree-Anne Fournier, Alicia Sasser, and Pierre Cremieux, “The Value of Antihypertensive Drugs: A Perspective On Medical Innovation.” *Health Affairs*, Vol. 26, No. 1, January-February, 2007, pp 97-110 and “Technical Appendix”.

Cutler, David, and Adrianna Lleras-Muney, “Understanding differences in health behaviors by education.” *Journal of Health Economics*, Vol. 29, No. 1, January, 2010, pp 1-28.

Deaton, Angus, and Darren Lubotsky, “Mortality, Inequality and Race in American Cities and States.” *Social Science & Medicine*, Vol. 56, No. 6, March, 2003, pp 1139-1153.

Deaton, Angus, “Health, Inequality, and Economic Development.” *Journal of Economic Literature*, Vol. 41, No. 1, March, 2003, pp 113-158.

Dooley, Martin, and Jennifer Stewart, “Family income and child health outcomes in Canada.”

*Canadian Journal of Economics*, Vol. 37, No. 4, November, 2004, pp 898-917.

Eng. Ken, and David Feeny, "Comparing the Health of Low Income and Less Well Educated Groups in the United States and Canada," *Population Health Metrics*, (electronic journal: <http://www.pophealthmetrics.com/content/5/1/10>), 5:10, 2007. DOI: 10.1186/147-7954-5-10. Published on-line October 16, 2007.

Feeny, David H., Mark S. Kaplan, Nathalie Huguét, and Bentson H. McFarland, "Comparing Population Health in the United States and Canada.." *Population Health Metrics*, Vol. 8:8, published on-line April 29, 2010; doi:10.1186/1478-7954-8-8. <http://www.pophealthmetrics.com/content/8/1/8>

Fletcher, Jason, and Barbara Wolfe, "Increasing Our Understanding of the Health-Income Gradient in Children." *Health Economics*, Vol. 23, No. 4, April, 2014, pp 473-486.

Fogel, Robert W., "Nutrition and the Decline in Mortality since 1700: Some Preliminary Findings," in Stanley L. Engerman and Robert E. Gallman, eds., *Long Term Factors in American Economic Growth*, Chicago, University of Chicago Press, 1986, pp 439-556.

Fogel, Robert W., "Economic Growth, Population Theory, and Physiology: The Bearing of Long-Term Processes on the Making of Economic Policy." *American Economic Review*, Vol. 83, No 3, June, 1994, pp 369-395.

Forget, Evelyn L., "The Town with No Poverty: The Health Effects of a Canadian Guaranteed Annual Income Field Experiment." *Canadian Public Policy*, Vol. 37, No. 3, September, 2011, pp 283-305.

Fries, James F., "Aging, Natural Death, and the Compression of Morbidity." *New England Journal of Medicine*, Vol. 303, No. 3, July 17, 1980, pp 130-135.

Fries, James F., "The Compression of Morbidity." *Milbank Memorial Fund*, Vol. 61, No. 3, Special Issue, Summer, 1983, pp 397-419.

Fries, James F., Bonnie Bruce, and Eliza Chakravarty, "Compression of Morbidity 1980-2011: A Focused Review of Paradigms and Progress." *Journal of Aging Research*, 2011.

Garner, Rochelle E., David Feeny, Amanda Thompson, Julie Bernier, Bentson H. McFarland, Nathalie Huguét, Mark S. Kaplan, Heather Orpana, Nancy A. Ross, and Chris Blanchard, "Bodyweight, Gender, and Quality of Life: A Population-based Longitudinal Study." *Quality of Life Research*, Vol. 21, No. 5, June, 2012, pp 813-825; published online August 13, 2011. "Erratum." *Quality of Life Research*, Vol. 21, No. 5, June, 2012, p 827.

Hanratty, Maria J., "Canadian National Health Insurance and Infant Health." *American Economic*

*Review*, Vol. 86, No. 1, March, 1996, pp 276-284.

James, Paul D., Russell Wilkins, Allan S. Detsky, Peter Tugwell, and Douglas G. Manuel, "Avoidable mortality by neighbourhood income in Canada: 25 years after the establishment of universal health insurance." *Journal of Epidemiology and Community Health*, Vol. 61, No. 4, April, 2007, pp 287-296.

Joyner, Michael J., Nigel Paneth, and John P. A. Ioannidis, "What Happens When Underperforming Big Ideas in Research Become Entrenched?" *Journal of the American Medical Association*, published online 28 July 2106.

Kaplan, Mark S., Nathalie Hugué, Heather Orpana, David Feeny, Bentson H. McFarland, and Nancy Ross, "Prevalence and Factors Associated with Thriving in Older Adulthood: A 10-year Population-based Study." *Journal of Gerontology. Series A, Medical Sciences*, Vol. 63A, No. 10, October, 2008, pp 1097-1104.

Kerr, William C., Mark S. Kaplan, Nathalie Hugué, Raul Caetano, Norman Giesbrecht, and Bentson H. McFarland, "Economic Recession, Alcohol, and Suicide Rates: Comparative Effects of Poverty, Foreclosure, and Job Loss." *American Journal of Preventive Medicine*, 09 November 2016.

Khanam, Rasheda, Hong Son Nghiem, and Luke B. Connelly, "Child health and the income gradient: Evidence from Australia." *Journal of Health Economics*, Vol. 28, No. 4, July, 2009, pp 805-817.

Khanam, Rasheda, Hong Son Nghiem, and Luke B. Connelly, "What Roles Do Contemporaneous and Cumulative Incomes Play in the Income-Child Health Gradient for Young Children? Evidence from an Australian Panel." *Health Economics*, Vol. 23, No. 8, August, 2012, pp 879-893.

Lane, Natasha E., Colleen J. Maxwell, Andrea Gruneir, Susan E. Bronskill, and Walter P. Wodchis, "Absence of a Socioeconomic Gradient in Older Adults' Survival with Multiple Chronic Conditions." *EbioMedicine*, in press.

Lindert Peter H., and Jeffrey G. Williamson, *Unequal Gains: American Growth and Inequality since 1700*. Princeton Economic History of the Western World. Princeton, Princeton University Press, 2016.

Lindert Peter H., and Jeffrey G. Williamson, Unequal gains: American growth and inequality since 1700. *Juncture*, Vol. 22, No. 4, 2016, pp 276-283.

McLeod, Christopher B., John N. Lavis, Cameron A. Mustard, and Greg L. Stoddart, "Income Inequality, Household Income, and Health Status in Canada: A Prospective Cohort Study."

*American Journal of Public Health*, Vol. 93, No. 8, August, 2003, pp 1287-1293.

Milligan, Kevin, and Mark Stabile, “the integration of child tax credits and welfare: Evidence from the Canadian National Child Benefit program.” *Journal of Public Economics*, Vol. 91, No 1-2, February, 2007, pp 305-326.

Mokyr, Joel, “Why ‘More Work for Mother?’ Knowledge and Household Behavior, 1870-1945.” *Journal of Economic History*, Vol. 60, No. 1, March, 2000, pp 1-41.

Mukherjee, Siddhartha, *The Emperor of All Maladies. A Biography of Cancer*. New York, Scribner, 2010.

Mukherjee, Siddhartha, *The Gene: An Intimate History*. New York, Scribner, 2016.

Murasko, Jason E., “An evaluation of the age-profile in the relationship between household income and the health of children in the United States.” *Journal of Health Economics*, Vol. 27, No. 6, December, 2008, pp 1489-1502.

Mustard, C. A., S. Derksen, M. J.M. Berthelot, M. Wolfson, and L. L. Roos, “Age-specific education and income gradients in morbidity and mortality in a Canadian province.” *Social Science & Medicine*, Vol. 45, No., 3, August, 1997, pp 383-397.

Sarma, Sisira, Rose Anne Devlin, Jason Gilliland, M. Karen Campbell, and Gregory S. Zaric, “The Effects of Leisure-Time Physical Activity on Obesity, Diabetes, High BP and Heart Disease Among Canadians: Evidence From 2000/2001 to 2005/2006.” *Health Economics*, Vol. 24, No. 12, December, 2015, pp 1531-1547.

Smith, James P., “Healthy Bodies and Thick Wallets: The Dual Relation Between Health and Economic Status.” *Journal of Economic Perspectives*, Vol. 13, No. 2, Spring, 1999, pp 145-166.

Wilkins, Kathryn, “Predictors of Death in Seniors.” *Health Reports*, Supplement to Vol. 16, 2006, pp 57-67, in *How Healthy are Canadians? Annual Report 2005*, Statistics Canada Catalogue 82-003.

**Mid-term Examination, Friday 03 March 2017**; Michael G. DeGroote Centre for Learning and Discover, Room 1110

**Week 9**, 06 - 10 March; **Systems of Health Care Finance and Health Care Funding; Assigned Reading**, Hurley (2010), Part Five and Chapters 11 and 12

Before class please listen to this to song. In class we will discuss briefly the interpretation and implications of the lyrics.

Yip Harburg (lyrics) and Jay Gorney (music), 1931, *Brother, Can You Spare a Dime*  
<https://www.youtube.com/watch?v=eih67rlGNhU&app=desktop>  
Performed by Bing Crosby

**Week 10.** 13 - 17 March; **Physicians, Their Practices, and the Market for Physician Services;**  
**Assigned Reading,** Hurley (2010), Part Six and Chapter 13

### **Enrichment**

Clemens, Jeffrey, and Joshua D. Gottlieb, "Do Physicians' Financial Incentives Affect Medical Treatment and Patient Health?" *American Economic Review*, Vol. 104, No. 4, April, 2014, pp 1320-1349.

Crossley, T. F., J. Hurley, and S. H. Jeon, "Physician labour supply in Canada: a cohort analysis." *Health Economics*, Vol. 18, No. 4, April, 2009, pp 437-456.

Devlin, Rose Anne, and Sisira Sarma, "Do physician remuneration schemes matter? The case of Canadian family physicians." *Journal of Health Economics*, Vol. 27, No. 5, September, 2008, pp 1168-1181.

Doyle, Joseph J., Jr., Steven M. Ewer, and Todd H. Wagner, "Returns to physician human capital: Evidence from patients randomized to physician teams." *Journal of Health Economics*, Vol. 29, No. 6, December, 2010, pp 866-882.

Hurley, Jeremiah, and Robert Card, "Global Physician Budgets as Common-Property Resources: Some Implications for Physicians and Medical Associations." *Canadian Medical Association Journal*, Vol. 154, No. 8, 15 April 1996, pp 1161-1168.

Kantarevic, J., and B. Kralj, "Link between pay for performance incentives and physician payment mechanisms: evidence from the diabetes management incentive in Ontario." *Health Economics*, Vol. 22, No. 12, December, 2013, pp 1417-1439.

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Kantarevic, J., and B. Kralj, "Physician Payment Contracts in the Presence of Moral Hazard and Adverse Selection: The Theory and its Application in Ontario." *Health Economics*, Vol. 25, No. 10, October, 2016, pp 1326-1340; published online 04 August 2015.

Kessel, Reuben A., "Price Discrimination in Medicine." *Journal of Law and Economics*, Vol. 1, October, 1958, pp 20-53.

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Kiran, T., J. C. Victor, A. Kopp, B. R. Shah, and R. H. Glazier, "The relationship between primary care models and processes of diabetes care in Ontario." *Canadian Journal of Diabetes*, Vol. 38, No. 3, June, 2014, pp 172-178.

Kralj, B., and J. Kantarevic, "Quality and quantity in primary care mixed-payment models: evidence from family health organizations in Ontario." *Canadian Journal of Economics*, Vol. 46, No. 1, February, 2013, pp 208-238.

Law, Marc T., and Sukkoo Kim, "Specialization and Regulation: The Rise of Professionals and the Emergence of Occupational Licensing Regulation." *Journal of Economic History*, Vol. 65, No. 3, September, 2005, pp 723-756.

Li, J., J. Hurley, P. DeCicca, and G. Buckley, "Physician response to pay-for-performance: evidence from a natural experiment." *Health Economics*, Vol. 23, No. 8, August, 2014, pp 962-978.

Rudoler, D., R. Deber, J. Barnsley, R. H. Glazier, A. R. Dass, and A. Laporte, "Paying for Primary Care: The Factors Associated with Physician Self-selection into Payment Models." *Health Economics*, Vol. 24, No. 9, September, 2015, pp 1229-1242.

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Woodward, Robert S., and Frederick Warren-Boulton, "Considering the Effects of Financial Incentives and Professional Ethics on 'Appropriate' Medical Care." *Journal of Health Economics*, Vol. 3, No. 3, December, 1984, pp 223-237.

### **Critical Review due in class, Friday 17 March**

**Week 11, 20 - 24 March; Health Care Institutions: Hospitals; Assigned Reading, Hurley (2010), Chapter 14**

## Enrichment

Doyle, Joseph J., Jr., John A. Graves, Jonathan Gruber, and Samuel A. Kleiner, "Measuring Returns to Hospital Care: Evidence from Ambulance Referral Patterns." *Journal of Political Economy*, Vol. 123, No. 1, February, 2015, pp 170-214.

Harris, Jeffrey E., "The Internal Organization of Hospitals: Some Economic Implications." *Bell Journal of Economics*, Vol. 8, No. 2, Autumn, 1977, pp 467-482.

Joynt, Karen E., John Orav, Ashish K. Jha, "Association Between Hospital Conversions to For-Profit Status and Clinical and Economic Outcomes." *Journal of the American Medical Association*, Vol. 312, No. 16, 22 October 2014, pp 1644-1652.

Wennberg, John E., Jean L. Freeman, and William J. Culp, "Are Hospital Services Rationed in New Haven or Over-utilised in Boston?" *Lancet*, Vol. 329, No. 8543, May 23, 1987, pp 1185-1189.

**Week 12, 27 - 31 March; Pharmaceuticals and Methods of Economic Evaluation; Assigned Reading**, Hurley (2010) Chapters 15 and 4

Biomedical Research and Development

## Enrichment

Becker, Gary S., "A Theory of Competition among Pressure Groups for Political Influence." *Quarterly Journal of Economics*, Vol. 98, No. 3, August, 1983, pp 371-400.

Budish, Eric, Benjamin N. Roin, and Heidi Williams, "Do Firms Underinvest in Long-Term Research? Evidence from Cancer Clinical Trials." *American Economic Review*, Vol. 105, No. 7, July 2015, pp 2044-2085.

Drummond, Michael F., Mark J. Sculpher, Karl Claxton, Greg L. Stoddart, and George W. Torrance, *Methods for the Economic Evaluation of Health Care Programmes*. Fourth Edition. Oxford: Oxford University Press, 2015.

Grootendorst, Paul, Aidan Hollis, David K. Levine, Thomas Pogge, and Aled M. Edwards, "New approaches to rewarding pharmaceutical innovation." *Canadian Medical Association Journal*, Vol. 183, No. 6, 05 April 2011, pp 681-685.

Guyatt, Gordon H., Andrew D. Oxman, Gunn E Vist, Regina Kunz, Yngve Galck-Ytter, Pablo Alonso-Coello, and Holger J. Schunemann, "GRADE: an emerging consensus on rating quality of evidence and strength of recommendations." *British Medical Journal*, Vol. 336, No. 7650, 26 April 2008, pp 924-926.



Howard, David H., Peter B. Bach, Ernst R. Berndt, and Rena M. Conti, "Pricing in the Market for Anticancer Drugs." *Journal of Economic Perspectives*, Vol. 29, No1, Winter, 2015, pp 139-162.

Morgan, Steven G., Marc-Andre Gagnon, Barbara Mintzes, and Joel Lexchin, "A Better Prescription: Advice for a National Strategy on Pharmaceutical Policy in Canada." *Healthcare Policy*, Vol 12, No. 1, 2016.

Neumann, Peter J., Gillian D. Sanders, Louise B. Russell, Joanna E. Siegel, and Theodore G. Ganiats, eds., *Cost-Effectiveness in Health and Medicine*, Second Edition, New York, Oxford University Press, 2016.

Sanders, Gillian D., Peter J. Neumann, Anirban Basu, Dan W. Brock, David Feeny, Murray Krahn, Karen M. Kuntz, David O. Meltzer, Douglas K. Owens, Lisa A. Prosser, Joshua A. Salomon, Mark J. Sculpher, Thomas A. Trikalinos, Louise B. Russell, Joanna E. Siegel, and Theodore G. Ganiats, "Recommendations for Conduct, Methodological Practices, and Reporting of Cost-Effectiveness in Health and Medicine: the Second Panel on Cost-Effectiveness in Health and Medicine." *Journal of the American Medical Association*, Vol. 316, No. 10, 13 September 2016, pp 1093-1103. Roberts, Mark S., "Editorial. The Next Chapter in Cost-Effectiveness Analysis." *Journal of the American Medical Association*, Vol. 316, No. 10, 13 September 2016, pp 1049-1050.

Wright, Charles J., G. Keith Chambers, and Yoel Robens-Paradise, "Evaluation of indications for and outcomes of elective surgery." *Canadian Medical Association Journal*, Vol. 167, No. 5, 03 September 2002, pp 461-466.

**Week 13, 03 - 06 April; Aging and Technology: Do They Threaten the Sustainability of the Health Care System? Assigned Reading**, Hurley (2010), Part Seven and Chapter 16

### **Enrichment**

Asada, Yukiko, George Kephart, "Equity in health services use and intensity of use in Canada." *BMC Health Services Research*, Vol. 7, No. 41, published online March 11, 2007; <http://www.biomedcentral.com/1472-6963/7/41>

Barer, M L., and G. L. Stoddart, *Controlling Health Care Costs by Direct Charges to Patients: Snare or Delusion?* Toronto. Ontario Economic Council Occasional Paper No. 10, 1979.

Baumol, William J., and Warren E. Oates, "The Cost Disease of the Personal Services and the Quality of Life." *Skandinaviska Enskilda Banken Quarterly Review*, Vol. 2, 1972, pp 44-54.

Baumol, William J., "Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis." *American Economic Review*, Vol. 57, No. 3, June, 1967, pp 415-426.

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Chetty, Raj, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez, "Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States." *Quarterly Journal of Economics*, Vol. 129, No. 4, November, 2014, pp 1553-1623.

Chetty, Raj, Michael Stepner, Sarah Abraham, Shelby Lin, Benjamin Scuderi, Nicholas Turner, Augustin Bergeron, and David Cutler, "The Association Between Income and Life Expectancy in the United States, 2001-2014." *Journal of the American Medical Association*, published online 10 April 2016.

Guyatt, G.H., P. Devereaux, J. Lexchin, S. B. Stone, A. Yalnizyan, D. Himmelstein, S. Woolhandler, Q. Zhou, L. J. Goldsmith, D. J. Cook, T. Haines, C. Lacchetti, J.N. Lavis, T. Sullivan, E. Mills, S. Kraus, and N. Bhatnager, "A systematic review of studies comparing health outcomes in Canada and the United States." *Open Medicine*, Vol. 1, No. 1, 14 April 2007, pp e27-e36.

Kaplan, Mark S., Nathalie Huguet, David Feeny, Bentson H. McFarland, and Stacey S. Williams, "Visits to Family Physicians or Specialists by Elderly Persons in Canada and the United States: An Exploratory Comparative Study." *International Journal of Health Services*, Vol. 40, No. 1, 2010, pp 139-149.

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McLeod, Christopher B., John N. Lavis, Cameron A. Mustard, and Greg L. Stoddart, "Income Inequality, Household Income, and Health Status in Canada: A Prospective Cohort Study." *American Journal of Public Health*, Vol. 93, No. 8, August, 2003, pp 1287-1293.

Mustard, C. A., S. Derksen, M. J.M. Berthelot, M. Wolfson, and L. L. Roos, "Age-specific education and income gradients in morbidity and mortality in a Canadian province." *Social Science & Medicine*, Vol. 45, No., 3, August, 1997, pp 383-397.

O'Neill, June E., and Dave M. O'Neill, "Health Status, Health Care and Inequality: Canada vs. the U.S." *Forum for Health Economics & Policy*, Vol. 10, No. 1, Article 3, 2007.

Obama, Barack, "United States Health Care Reform. Progress to Date and Next Steps." *Journal of the American Medical Association*, published online 11 July 2010.

Prus, Steven G., Rania Tfaily, and Zhiqiu Lin, "Comparing Racial and Immigrant Health Status and Health Care Access in Later Life in Canada and the United States." *Canadian Journal of Aging*, Vol. 29, No. 3, September, 2013, pp 383-395.

Roham, Mehrdad, Anait R. Gabrielyan, Norman P. Archer, Michel L. Grignon, and Byron G. Spencer, "The Impact of Technological Intensity of Service Provision on Physician Expenditures: An Exploratory Investigation." *Health Economics*, Vol. 23, No. 10, October, 2014, pp 1224-1241.

Rosella, Laura C., Tiffany Fitzpatrick, Walter P. Wodchis, Andrew Calzavara, Heather Manson, and Vivek Goel, "High-cost health care users in Ontario, Canada: demographic, socio-economic, and health status characteristics." *BMC Health Services Research*, Vol. 14, No. 532, published online 31 October 2014; <http://www.biomedcentral.com/1472-6963/14/532>

Spithoven, A. H. G. M., "Why U.S. health care expenditure and ranking on health care indicators are so different from Canada's" *International Journal of Health Care Finance and Economics*, Vol. 9, No. 1, March, 2009, pp 1-24.

Vita, A.J. R.B. Terry, H.B. Hubert, and J.F. Fries, "Aging, health risks, and cumulative disability." *New England Journal of Medicine*, Vol. 33, No. 15, 9 April 1998, pp 1035-1041.

Williams, Alan, "Intergenerational Equity: An Exploration of the 'Fair Innings' Argument." *Health Economics*, Vol. 6, No. 2, March, 1997, pp 117-132.

Wodchis, W.P., P.C. Austin, and D.A. Henry, "A 3-year study of high-cost users of health care." *Canadian Medical Association Journal*, Vol. 188, No. 3, 16 February 2016, pp 182-188.

### **Final Examination:**

#### **Some Guides on Writing**

McCloskey, Donald, "Economic Writing." *Economic Inquiry*, Vol 24, No. 2, April, 1985, pp 187-222.

McCloskey, Donald N., *The Writing of Economics*. New York: MacMillan Publishing, 1987.

Strunk, William, Jr., and F. B. White, *The Elements of Style*, Second Edition. New York: MacMillan Company, 1972.

#### **Two Interesting Papers**

Gans, Joshua S., and George B. Shepherd, "How Are the Mighty Fallen: Rejected Classic Articles by Leading Economists." *Journal of Economic Perspectives*, Vol. 8, No. 1, Winter, 1994, pp 165-179.

McCloskey, Donald N., "The Rhetoric of Economics." *Journal of Economic Literature*, Vol. 21, No. 2, June, 1983, pp 481-517.

**Useful Search Engine.** PubMed from the U.S. National Library of Medicine is a useful search engine for published papers on health, health economics, and health policy:

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi>

Another useful search engine is

EconLit

which you can access through the Databases section of the McMaster University Libraries website. You can also access PubMed via the library.

**Potentially Relevant Journals.** Journals that often include papers on health economics, health policy, and related topics include:

*American Journal of Health Economics*  
*European Journal of Health Economics*  
*Health Affairs*  
*Health Economics*  
*Health Policy*  
*Health Reports*  
*Health Services Research*  
*Inquiry*  
*International Journal of Technology Assessment in Health Care*  
*Journal of Epidemiology and Community Health*  
*Journal of Health Economics*  
*Journal of Health Politics, Policy and Law*  
*Journal of Human Resources*  
*Journal of Patient-Reported Outcomes*  
*Medical Care*  
*Medical Care Research and Review*  
*Medical Decision Making*  
*Milbank Quarterly*  
*Pharmacoeconomics*  
*Quality of Life Research*  
*Social Science & Medicine*  
*Value in Health*