

Department of Economics, Carleton University
ECON 4460 A – Health Economics
Winter 2023

Professor: Gaëlle Simard-Duplain
Office: B845 Loeb Building
Office hours: By appointment
Email: gaelle.simardduplain@carleton.ca

TA: There is no TA for this course.

Course meeting time and place: Thursday, 2:35 to 5:25 pm, Tory Building (TB) Room 431.

Course delivery: In person

Course Brightspace page: <https://brightspace.carleton.ca/d2l/home/159809>

ALGONQUIN TERRITORY ACKNOWLEDGMENT

Carleton University acknowledges the location of its campus on the traditional, unceded territories of the Algonquin nation. In doing so, Carleton acknowledges it has a responsibility to the Algonquin people and a responsibility to adhere to Algonquin cultural protocols.

COURSE DESCRIPTION

This course aims to give students an in-depth understanding of the contribution of theoretical and empirical economics to the study of health and health care. We will consider the application of economic theory to policy-relevant questions pertaining to the demand for and production of health and health care. Building on this, we will examine how health economists take theory to the data, the empirical challenges they face in doing so, and the econometric methods they use to address these challenges and meet their research objectives. In particular, we will discuss and critically assess research findings in light of these methods. Throughout the course, students will read seminal and more recent peer-reviewed academic journal articles in the field of health economics.

PREREQUISITES AND PRECLUSIONS

Prerequisite(s): ECON 2030 with a grade of C- or higher, and ECON 2220 (or equivalent) with a grade of C- or higher. Students who believe they can be exempted from the listed prerequisites should contact the Department of Economics Undergraduate Administrator, Renée Lortie.

Preclusion(s): N/A.

COURSE DELIVERY

Classes will be held in person on Thursdays, 2:35 to 5:25 pm, Tory Building (TB) Room 431.

EMAIL POLICY

Students can expect a reply within two to three business days. To receive a timely reply, please use your Carleton email address and include ECON 4460 as the first part of the subject of all emails. For additional information on email etiquette, [click here](#).

TEXTBOOK

There is no textbook for this course. Classes will be based on mandatory and optional readings (listed below). For students who wish to refer to a textbook treatment of some of the concepts that will be discussed throughout the semester, *Health Economics* by Jeremiah Hurley (2010) is recommended.

COURSE EVALUATION

The course will be graded as follows:

Journal article summaries (3)	30%
Presentation	20%
Midterm exam	20%
Final exam	30%

Journal article summaries: Over the course of the semester (starting in the second week of class), students will hand in three (3) journal article summaries (approx. ½-1 page) based on assigned readings. Students may choose any three weeks to hand in their article summaries. However, they must ensure to have handed in three summaries by the end of the semester. Failure to do so will result in lost marks (proportional to the number of missing summaries). The instructor will draw material from the summaries during in-class discussions.

Presentation: Starting in the fourth week of class, students will be responsible for presenting a paper and leading the class discussion on that paper. The instructor will randomly form groups of 2-4 students (depending on final enrollment). Each group will be asked to pick one paper from the reading list, to be presented in the corresponding week. Alternatively, students may contact the instructor if they wish to present a paper that is not included in the reading list.

Time slots for presentations will be allocated on a first-come, first-served basis during the second week of class. If there is more demand than availabilities for particular time slots, the instructor will randomly select students for the popular time slot and ask others to pick a different time. Students who have a valid reason to expect a scheduling conflict should communicate with the instructor as soon as possible. Additional information will be provided about the modalities for scheduling presentations in the first week of class.

There will be no make-up presentations. For students who cannot present on the scheduled date due to valid and documented circumstances (e.g., serious illness/emergency), the weight of the presentation will be put on the rest of the evaluations proportionally; that is, their grade will be calculated by adding up all the evaluation components and dividing by 80. Students who miss their presentation for no valid reason will receive a grade of zero (0).

Midterm exam: The midterm exam will be held in class, based on material covered in classes 1 through 5 (see Tentative course calendar). The midterm exam will include a combination of multiple choice and short-answer questions.

Final exam: The final exam will be held during the university's final examination period, based on all the material covered during the semester (cumulative exam). The final exam will include a combination of multiple choice and short-answer questions.

Missed exams and final grade: There will be no make-up midterm exam. Students who miss the midterm exam due to valid and documented circumstances (e.g., serious illness/emergency) will have the weight of the midterm placed on the final exam. Other students will receive a grade of zero.

In cases of serious illness/emergency or other circumstances that cause students to miss the final exam, students may petition the Registrar's Office to write a deferred exam. Students must make this petition no later than three working days after the original final examination. In the interim, they will receive a grade of zero for the final examination. If granted by the Registrar's Office, the deferred exam will take place during the time designated in Carleton University's calendar.

Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean.

RE-MARKING

Any request for re-marking of an exam must be submitted in writing within a two-week period of that exam being returned to the class. Students should include in that request a detailed explanation of why they feel they should receive a higher mark. Re-marking will apply to the entire exam, not just the contentious question(s). As a result, the revised mark may be higher than, lower than, or the same as the original mark.

TENTATIVE COURSE CALENDAR

The course calendar below is subject to change. Depending on time and interest, more or less class time may be dedicated to different topics. Any changes to the course calendar will be communicated in class and through Brightspace.

Class	Date	Topic	Evaluation
1	Jan. 12	Introduction to health economics Demand for and production of health among adults	
2	Jan. 19	Demand for and production of health among adults Demand for and production of health among children	
3	Jan. 26	Demand for and production of health among children	
4	Feb. 2	Demand for health care	
5	Feb. 9	Health behaviours	
6	Feb. 16		Midterm exam
	Feb. 23	Winter break	
7	Mar. 2	Health insurance markets	
8	Mar. 9	Health insurance markets	
9	Mar. 16	Physician decision-making and the supply of health care	
10	Mar. 23	Physician decision-making and the supply of health care	
11	Mar. 30	The pharmaceutical industry	
12	Apr. 6	Health care markets and the role of governments	
	Apr. 15-17	Final examination period	Final exam

READING LIST

The course draws from the reading list below. Additional readings may be added to the list. Students will be expected to complete one (1) to three (3) readings ahead of class every week and to arrive to class ready to discuss. Assigned readings for every week will be communicated to students ahead of time in class and through Brightspace. Most readings can be accessed through the Carleton library website. Other readings will be made available through Brightspace.

Introduction to health economics

Chen, A., Oster, E., & Williams, H. (2016). Why is infant mortality higher in the United States than in Europe? *American Economic Journal: Economic Policy*, 8(2), 89-124.

Cutler, D., Deaton, A., & Lleras-Muney, A. (2006). The determinants of mortality. *Journal of Economic Perspectives*, 20(3), 97-120.

Deaton, A. (2006). The great escape: A review of Robert Fogel's the escape from hunger and premature death, 1700-2100. *Journal of Economic Literature*, 44(1), 106-114.

Fogel, R. W. (2004). *The escape from hunger and premature death, 1700-2100: Europe, America, and the Third World* (Vol. 38). Cambridge University Press.

Demand for and production of health among adults

- Buckles, K., Hagemann, A., Malamud, O., Morrill, M., & Wozniak, A. (2016). The effect of college education on mortality. *Journal of Health Economics*, 50, 99-114.
- Cesarini, D., Lindqvist, E., Östling, R., & Wallace, B. (2016). Wealth, health, and child development: Evidence from administrative data on Swedish lottery players. *The Quarterly Journal of Economics*, 131(2), 687-738.
- Clark, D., & Royer, H. (2013). The effect of education on adult mortality and health: Evidence from Britain. *American Economic Review*, 103(6), 2087-2120.
- Deaton, A. (2003). Health, inequality, and economic development. *Journal of Economic Literature*, 41(1), 113-158.
- Frijters, P., Haisken-DeNew, J. P., & Shields, M. A. (2005). The causal effect of income on health: Evidence from German reunification. *Journal of Health Economics*, 24(5), 997-1017.
- Lleras-Muney, A. (2005). The relationship between education and adult mortality in the United States. *The Review of Economic Studies*, 72(1), 189-221.
- Ruhm, C. J. (2000). Are recessions good for your health? *The Quarterly Journal of Economics*, 115(2), 617-650.

Demand for and production of health among children

- Almond, D., & Currie, J. (2011). Killing me softly: The fetal origins hypothesis. *Journal of Economic Perspectives*, 25(3), 153-72.
- Almond, D., Currie, J., & Duque, V. (2018). Childhood circumstances and adult outcomes: Act II. *Journal of Economic Literature*, 56(4), 1360-1446.
- Baker, M., & Milligan, K. (2016). Boy-girl differences in parental time investments: Evidence from three countries. *Journal of Human Capital*, 10(4), 399-441.
- Barker, D. J. (1995). Fetal origins of coronary heart disease. *British Medical Journal*, 311(6998), 171-174.
- Case, A., Lubotsky, D., & Paxson, C. (2002). Economic status and health in childhood: The origins of the gradient. *American Economic Review*, 92(5), 1308-1334.
- Condliffe, S., & Link, C. R. (2008). The relationship between economic status and child health: evidence from the United States. *American Economic Review*, 98(4), 1605-18.
- Currie, J. (2009). Healthy, wealthy, and wise: Socioeconomic status, poor health in childhood, and human capital development. *Journal of Economic Literature*, 47(1), 87-122.
- Currie, J., & Schwandt, H. (2013). Within-mother analysis of seasonal patterns in health at birth. *Proceedings of the National Academy of Sciences*, 110(30), 12265-12270.
- Currie, J., & Stabile, M. (2003). Socioeconomic status and child health: why is the relationship stronger for older children? *American Economic Review*, 93(5), 1813-1823.

Currie, J., & Stabile, M. (2006). Child mental health and human capital accumulation: the case of ADHD. *Journal of Health Economics*, 25(6), 1094-1118.

Hjort, J. (2017). Universal investment in infants and long-run health: evidence from Denmark's 1937 home visiting program. *American Economic Journal: Applied Economics*, 9(4), 78-104.

Hoynes, H., Miller, D., & Simon, D. (2015). Income, the earned income tax credit, and infant health. *American Economic Journal: Economic Policy*, 7(1), 172-211.

Hoynes, H., Schanzenbach, D. W., & Almond, D. (2016). Long-run impacts of childhood access to the safety net. *American Economic Review*, 106(4), 903-34.

Milligan, K., & Stabile, M. (2011). Do child tax benefits affect the well-being of children? Evidence from Canadian child benefit expansions. *American Economic Journal: Economic Policy*, 3(3), 175-205.

Persson, P., & Rossin-Slater, M. (2018). Family ruptures, stress, and the mental health of the next generation. *American Economic Review*, 108(4-5), 1214-52.

Demand for health care

Card, D., Dobkin, C., & Maestas, N. (2008). The impact of nearly universal insurance coverage on health care utilization: evidence from Medicare. *American Economic Review*, 98(5), 2242-58.

Currie, J., & Gruber, J. (1996). Health insurance eligibility, utilization of medical care, and child health. *The Quarterly Journal of Economics*, 111(2), 431-466.

Finkelstein, A., Taubman, S., Wright, B., Bernstein, M., Gruber, J., Newhouse, J. P., Allen, H., Baicker, K., & Oregon Health Study Group. (2012). The Oregon health insurance experiment: evidence from the first year. *The Quarterly Journal of Economics*, 127(3), 1057-1106.

Grossman, M. (1972). On the concept of health capital and the demand for health. *Journal of Political Economy*, 80(2), 223-255.

Manning, W. G., Newhouse, J. P., Duan, N., Keeler, E. B., & Leibowitz, A. (1987). Health insurance and the demand for medical care: evidence from a randomized experiment. *American Economic Review*, 251-277.

Miller, S., & Wherry, L. R. (2019). The long-term effects of early life Medicaid coverage. *Journal of Human Resources*, 54(3), 785-824.

Health behaviours

Adda, J., & Cornaglia, F. (2010). The effect of bans and taxes on passive smoking. *American Economic Journal: Applied Economics*, 2(1), 1-32.

Becker, G. S., & Murphy, K. M. (1988). A theory of rational addiction. *Journal of Political Economy*, 96(4), 675-700.

Chou, S. Y., Grossman, M., & Saffer, H. (2004). An economic analysis of adult obesity: results from the Behavioral Risk Factor Surveillance System. *Journal of Health Economics*, 23(3), 565-587.

Powell, D., Pacula, R. L., & Jacobson, M. (2018). Do medical marijuana laws reduce addictions and deaths related to pain killers? *Journal of health economics*, 58, 29-42.

Health insurance markets

Akerlof, G. (1970). The market for lemons. *Quarterly Journal of Economics*, 84, 488-500.

Arrow, K. J. (1963). Uncertainty and the welfare economics of medical care. *American Economic Review*, 53(5), 941-73.

Cutler, D. & Reber, S. (1998). Paying for health insurance: the trade-off between competition and adverse selection. *Quarterly Journal of Economics*, 113(2), 433-466.

Einav, L., & Finkelstein, A. (2018). Moral hazard in health insurance: what we know and how we know it. *Journal of the European Economic Association*, 16(4), 957-982.

Einav, L., Finkelstein, A., Ryan, S. P., Schrimpf, P., & Cullen, M. R. (2013). Selection on moral hazard in health insurance. *American Economic Review*, 103(1), 178-219.

Madrian, B. (1994). Employment based health insurance and job mobility: is there evidence of job-lock? *Quarterly Journal of Economics*, 109(1), 27-54.

Stabile, M. (2001). Private insurance subsidies and public health care markets: evidence from Canada. *Canadian Journal of Economics*, 34(4), 921-42.

Physician decision-making and the supply of health care

Clemens, J., & Gottlieb, J. D. (2014). Do physicians' financial incentives affect medical treatment and patient health? *American Economic Review*, 104(4), 1320-49.

Crossley, T. F., Hurley, J., & Jeon, S. H. (2009). Physician labour supply in Canada: a cohort analysis. *Health Economics*, 18(4), 437-456.

Currie, J., & MacLeod, W. B. (2008). First do no harm? Tort reform and birth outcomes. *The Quarterly Journal of Economics*, 123(2), 795-830.

Currie, J., & MacLeod, W. B. (2017). Diagnosing expertise: Human capital, decision making, and performance among physicians. *Journal of Labor Economics*, 35(1), 1-43.

Dalsgaard, S., Humlum, M. K., Nielsen, H. S., & Simonsen, M. (2012). Relative standards in ADHD diagnoses: the role of specialist behavior. *Economics Letters*, 117(3), 663-665.

Dranove, D., & Wehner, P. (1994). Physician-induced demand for childbirths. *Journal of Health Economics*, 13(1), 61-73.

Finkelstein, A., Gentzkow, M., & Williams, H. (2016). Sources of geographic variation in health care: Evidence from patient migration. *The Quarterly Journal of Economics*, 131(4), 1681-1726.

Fischer, K. E., Koch, T., Kostev, K., & Stargardt, T. (2018). The impact of physician-level drug budgets on prescribing behavior. *The European Journal of Health Economics*, 19(2), 213-222.

Frank, R. G., & Zeckhauser, R. J. (2007). Custom-made versus ready-to-wear treatments: Behavioral propensities in physicians' choices. *Journal of Health Economics*, 26(6), 1101-1127.

Grant, D. (2009). Physician financial incentives and cesarean delivery: new conclusions from the healthcare cost and utilization project. *Journal of Health Economics*, 28(1), 244-250.

Gruber, J., Kim, J., & Mayzlin, D. (1999). Physician fees and procedure intensity: the case of cesarean delivery. *Journal of Health Economics*, 18(4), 473-490.

McGuire, T. G. (2000). Physician agency. *Handbook of Health Economics*, 1, 461-536.

The pharmaceutical industry

Brekke, K. R., Grasdal, A. L., & Holmås, T. H. (2009). Regulation and pricing of pharmaceuticals: reference pricing or price cap regulation? *European Economic Review*, 53(2), 170-185.

Kaiser, U., Mendez, S. J., Rønne, T., & Ullrich, H. (2014). Regulation of pharmaceutical prices: evidence from a reference price reform in Denmark. *Journal of Health Economics*, 36, 174-187.

Lopez-Casasnovas, G., & Puig-Junoy, J. (2000). Review of the literature on reference pricing. *Health Policy*, 54(2), 87-123.

Moser, P. (2013). Patents and innovation: evidence from economic history. *Journal of Economic Perspectives*, 27(1), 23-44.

Scherer, F. M. (1993). Pricing, profits, and technological progress in the pharmaceutical industry. *Journal of Economic Perspectives*, 7(3), 97-115.

Scherer, F. M. (2000). The pharmaceutical industry. In *Handbook of Health Economics*, A.J. Culyer, & J.P. Newhouse (eds). Amsterdam: Elsevier Science B.V., 1297-1336.

Vernon, J. A. (2005). Examining the link between price regulation and pharmaceutical R&D investment. *Health Economics*, 14(1), 1-16.

Health care markets and the role of governments

Allin, S., & Hurley, J. (2009). Inequity in publicly funded physician care: what is the role of private prescription drug insurance? *Health Economics*, 18(10), 1218-1232.

Cutler, D. M., & Gruber, J. (1996). Does public insurance crowd out private insurance? *The Quarterly Journal of Economics*, 111(2), 391-430.

Gaynor, M., Ho, K., & Town, R. J. (2015). The industrial organization of health-care markets. *Journal of Economic Literature*, 53(2), 235-84.

Stabile, M. (2001). Private insurance subsidies and public health care markets: evidence from Canada. *Canadian Journal of Economics*, 921-942.

Stabile, M., & Thomson, S. (2014). The changing role of government in financing health care: an international perspective. *Journal of Economic Literature*, 52(2), 480-518.

STUDENT MENTAL HEALTH

As a University student you may experience a range of mental health challenges that significantly impact your academic success and overall well-being. If you need help, please speak to someone. There are numerous resources available both on- and off-campus to support you. Here is a list that may be helpful:

Emergency Resources (on and off campus): <https://carleton.ca/health/emergencies-and-crisis/emergency-numbers/>

Carleton Resources:

- Mental Health and Wellbeing: <https://carleton.ca/wellness/>
- Health & Counselling Services: <https://carleton.ca/health/>
- Paul Menton Centre: <https://carleton.ca/pmc/>
- Academic Advising Centre (AAC): <https://carleton.ca/academicadvising/>
- Centre for Student Academic Support (CSAS): <https://carleton.ca/csas/>
- Equity & Inclusivity Communities: <https://carleton.ca/equity/>

Off Campus Resources:

- Distress Centre of Ottawa and Region: (613) 238-3311 or TEXT: 343-306-5550, <https://www.dcottawa.on.ca/>
- Mental Health Crisis Service: (613) 722-6914, 1-866-996-0991, <http://www.crisisline.ca/>
- Empower Me: 1-844-741-6389, <https://students.carleton.ca/services/empower-me-counselling-services/>
- Good2Talk: 1-866-925-5454, <https://good2talk.ca/>
- The Walk-In Counselling Clinic: <https://walkincounselling.com>

CENTRE FOR INDIGENOUS SUPPORT AND COMMUNITY ENGAGEMENT (CISCE)

The Centre for Indigenous Support and Community Engagement (CISCE), formerly known as the Centre for Indigenous Initiatives, supports First Nations (status and non-status), Inuit, and Métis students, staff, and faculty by providing culturally safe spaces for dialogue and learning. The Centre provides weekly, monthly and annual programming for students and also develops and delivers resources and training to educate the Carleton community about Indigenous histories, worldviews and perspectives. To learn more about the services offered, please visit <https://carleton.ca/indigenous/cisce/students/>. If you have any questions, you can email Indigenous@carleton.ca

PANDEMIC MEASURES

It is important to remember that COVID is still present in Ottawa. The situation can change at any time and the risks of new variants and outbreaks are very real. There are [a number of actions you can take](#) to lower your risk and the risk you pose to those around you including being vaccinated, wearing a mask, staying home when you're sick, washing your hands and maintaining proper respiratory and cough etiquette.

Feeling sick? Remaining vigilant and not attending work or school when sick or with symptoms is critically important. If you feel ill or exhibit COVID-19 symptoms do not come to class or campus. If you feel ill or exhibit symptoms while on campus or in class, please leave campus immediately. In all situations, you should follow Carleton's [symptom reporting protocols](#).

Masks: Masks are no longer mandatory in university buildings and facilities. However, we continue to recommend masking when indoors, particularly if physical distancing cannot be maintained. We are aware that personal preferences regarding optional mask use will vary greatly, and we ask that we all show consideration and care for each other during this transition.

Vaccines: While proof of vaccination is no longer required to access campus or participate in in-person Carleton activities, it may become necessary for the University to bring back proof of vaccination requirements on short notice if the situation and public health advice changes. Students are strongly encouraged to get a full course of vaccination, including booster doses as soon as they are eligible and submit their booster dose information in [cuScreen](#) as soon as possible. Please note that Carleton cannot guarantee that it will be able to offer virtual or hybrid learning options for those who are unable to attend the campus.

All members of the Carleton community are required to follow requirements and guidelines regarding health and safety which may change from time to time. For the most recent information about Carleton's COVID-19 response and health and safety requirements please see the [University's COVID-19 website](#) and review the [Frequently Asked Questions \(FAQs\)](#). Should you have additional questions after reviewing, please contact covidinfo@carleton.ca.

PLAGIARISM

The University Academic Integrity Policy defines plagiarism as “presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one’s own.” This includes reproducing or paraphrasing portions of someone else’s published or unpublished material, regardless of the source, and presenting these as one’s own without proper citation or reference to the original source. Examples of sources from which the ideas, expressions of ideas or works of others may be drawn from include but are not limited to: books, articles, papers, literary compositions and phrases, performance compositions, chemical compounds, artworks, laboratory reports, research results, calculations and the results of calculations, diagrams, constructions, computer reports, computer code/software, material on the internet and/or conversations.

Students are responsible for ensuring the work they submit for this course is their own. For additional information on how to avoid plagiarism, please see [Academic Integrity and Offenses of Conduct](#).

COURSE COPYRIGHT

Classroom teaching and learning activities, including lectures, discussions, presentations, etc., by both instructors and students, are copyright protected and remain the intellectual property of their respective author(s). All course materials, including PowerPoint presentations, outlines, and other materials, are also protected by copyright and remain the intellectual property of their respective

author(s). Students registered in the course may take notes and make copies of course materials for their own educational use only. Students are not permitted to reproduce or distribute lecture notes and course materials publicly for commercial or non-commercial purposes without express written consent from the copyright holder(s).

ACADEMIC ACCOMMODATION

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

Pregnancy obligation: Write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For accommodation regarding a formally-scheduled final exam, you must complete the Pregnancy Accommodation Form ([click here](#)).

Religious obligation: Write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, [click here](#).

Academic Accommodations for Students with Disabilities: The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (if applicable).

Survivors of Sexual Violence: As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: <https://carleton.ca/equity/sexual-assault-support-services>.

Accommodation for Student Activities: Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation will be provided to students who compete or perform at the national or international level. Write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more information, [click here](#).