

NEKN61: Advanced Health Economics

Spring 2017

Course organizer: Jan Bietenbeck

Office: Alfa 1 building, room 4107

Office hours: Thursdays from 10:00-11:00

Email (always include 'NEKN61' in the subject!): jan.bietenbeck@nek.lu.se

Lecturers: Jan Bietenbeck and Ulf Gerdtham

Teaching assistant: Thomas Hofmarcher

Guest lecturer: Gawain Heckley

Course information

This course provides a graduate-level overview of current issues in theoretical and empirical health economics. It focuses on topics that are directly relevant to health care policy, including determinants of demand for health care, causes and consequences of health care spending growth, cost-effectiveness analysis in health care, and measurement of health inequalities. These topics will be discussed in lectures and seminars on the basis of academic articles. Students will learn to analyze and evaluate existing research independently, and to conduct and present their own research in the form of an essay.

Course requirements (prerequisites)

Please note that you need to have passed NEKN33 “Applied Microeconometrics” (or an equivalent course) in order to take this course. Research in health economics is predominantly empirical, and many of the articles in the course literature require a good understanding of the standard methods in applied microeconometrics (panel data methods, difference-in-differences, instrumental variable estimation, and regression discontinuity designs). If you feel that you need to refresh your knowledge of these methods, you can consult the textbook “Mostly Harmless Econometrics” by J. Angrist and J.-S. Pischke.

Course literature

The course literature consists of the academic articles listed on pages 4ff. For each lecture and student seminar, the list identifies some articles that constitute the required readings for the topic. Further optional readings, which are listed under a separate heading, are meant to give more background information on, or additional examples of, the topic covered. All articles will be posted on Live@Lund and can also be accessed online via the LU Libraries.

Examination and grading

Your final grade for the course is composed of partial grades for

1. two in-class examinations (E1 and E2, at most 30 points);
2. two student seminars (S1 and S2, at most 20 points); and
3. an essay that you have to write and present in a seminar (S3, at most 50 points).

The maximum amount of points that you can obtain is 100, i.e. each point is worth exactly 1% of the final grade. Please note that any partial grades are valid only for the academic year 2016/17! In the following, each of the examination elements is described in more detail.

In-class examinations E1 and E2

The in-class examinations test your knowledge of the required readings and the material covered in the lectures and the student seminars. E1 covers lectures 1-5, the guest lecture, and student seminar S1. E2 covers lectures 6-10 and student seminar S2. In each examination, you can obtain a maximum of 15 points (30 points in total for E1 and E2). Examples of potential questions on these examinations will be given during the lectures. Please note that in order to pass the course, you have to get at least 7.5 points on each in-class examination. Re-taking E1 or E2 is possible only if the result on the first examination was F (fail).

Student seminars S1 and S2

In these seminars, students present and discuss academic articles on a particular topic in health economics. Presentations will typically be held by groups of 2-3 students. After each presentation, there will be a discussion among all attending students, with students from the group who presented the paper acting as discussion leaders. Each student has to attend both S1 and S2, but will have to present only once (either during S1 or during S2). Your grade for this part of the course depends both on the quality of your presentation and on the level and

quality of your participation in the discussions. You can obtain a maximum of 13 points for the seminar in which you present and a maximum of 7 points for the seminar in which you do not present (20 points in total for S1 and S2). If you miss a seminar for whatever reason you will get 0 points for it. Further information regarding the presentation schedule, groups, formats, etc. will be given during the second week of the course.

Essay and seminar S3

Your final grade also depends on an essay that you have to write on a topic in health economics. This essay has to be written individually and needs to include either an empirical or a (micro-) theoretical analysis. You can freely choose your topic as long as it relates to the content of the course. You also have to present your essay in a seminar (S3) during the final week of the course. For the essay and the presentation combined, you can get at most 50 points. Please note: you need to get at least 25 points in order to pass the course. Further instructions regarding how to choose a topic, formatting requirements, and seminar S3 will be given during the first few weeks of the course.

Course page on Live@Lund

The course page on Live@Lund is going to be updated regularly with lecture slides, information on group assignments, potential changes to the schedule or the syllabus, etc. Therefore, please make sure to check the course page regularly.

Course literature

Lecture 1: Introduction

Required readings:

Arrow, K. J. (1963). Uncertainty and the welfare economics of medical care. *The American Economic Review*, 53(5), 941–973.

Further optional readings:

Chapters 2 and 3 in Bhattacharya, J., Hyde, T., and P. Tu, (2014). *Health Economics*. Palgrave Macmillan.

OECD. (2008). *The Looming Crisis in the Health Workforce. How Can OECD Countries Respond?* Geneva: OECD.

OECD. (2015). *Health at a Glance 2015*. Geneva: OECD.

Lecture 2: Demand for Health Care and Health

Required readings:

Aron-Dine, A., Einav, L., and A. Finkelstein, (2013). The Rand Health Insurance Experiment: Three Decades Later. *Journal of Economic Perspectives*, 27(1), 197–222.

pp.75-89 in Zweifel, P., Breyer, F., and M. Kifmann, (2009). *Health Economics*. Springer.

Further optional readings:

Chapters 2 and 3 in Bhattacharya, J., Hyde, T., and P. Tu, (2014). *Health Economics*. Palgrave Macmillan.

Finkelstein, A., Taubman, S., Wright, B., Bernstein, M., Gruber, J., Newhouse, J. P., Allen, H., Baicker, K., and 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), 223–225.

Levine, D., Polimeni, R., & Ramage, I. (2016). Insuring health or insuring wealth? An experimental evaluation of health insurance in rural Cambodia. *Journal of Development Economics*, 119, 1–15.

Lecture 3: The Persistence of Early Childhood Investments

Required readings:

pp.1322-1328 in Almond, D., and Currie, J. (2011). Human Capital Development before Age Five. In *Handbook of Labor Economics* (Vol. 4, pp. 1315–1486).

Almond, D. (2006). Is the 1918 Influenza pandemic over? Long-term effects of in utero Influenza exposure in the post-1940 US population. *Journal of Political Economy*, 114(4), 672–712.

Hoynes, H. W., Schanzenbach, D. W., and D. Almond (2016). Long Run Impacts of Childhood Access to the Safety Net. *American Economic Review*, 106(4), 903-934.

Further optional readings:

Almond, D., and Currie, J. (2011). Human Capital Development before Age Five. In *Handbook of Labor Economics* (Vol. 4, pp. 1315–1486).

Almond, D., & Currie, J. (2011). Killing Me Softly: The Fetal Origins Hypothesis. *Journal of Economic Perspectives*, 25(3), 153–172.

Heckman, J. J. (2007). The economics, technology, and neuroscience of human capability formation. *Proceedings of the National Academy of Sciences*, 104(33), 13250–13255.

Lecture 4: The Economics of Life Style

Required readings:

Cawley, J. (2004). The Impact of Obesity on Wages. *Journal of Human Resources*, 39, 451-474.

Gerdtham, U.-G., Lundborg, P., Lyttkens, C. H., and P. Nystedt (2016). Do Education and Income Really Explain Inequalities in Health? Applying a Twin Design. *The Scandinavian Journal of Economics*, 118(1), 25-48.

Guest Lecture by Gawain Heckley

Required readings:

Lleras-Muney, A. (2005). The relationship between education and adult mortality in the United States. *Review of Economic Studies*, 72(1), 189-221.

Clark, D., & Royer, H. (2013). The effect of education on adult mortality and health: Evidence from Britain. *American Economic Review*, 103(6), 2087-2120.

Further optional readings:

Fuchs, V. R. (1982). Time Preference and Health: An Exploratory Study. In *Economic Aspects of Health* (pp. 93-120). University of Chicago Press.

Mazumder, B. (2008). Does education improve health? A reexamination of the evidence from

compulsory schooling laws. *Economic Perspectives*, 32(2).

Fortin, N., Lemieux, T., & Firpo, S. (2011). Decomposition methods in economics. *Handbook of labor economics*, 4, 1-102.

Heckley, G., Gerdtham, U. G., & Kjellsson, G. (2016). A general method for decomposing the causes of socioeconomic inequality in health. *Journal of health economics*, 48, 89-106

Lecture 5: Physician-Induced Demand

Required readings:

Gruber, J., and M. Owings (1996). Physician financial incentives and cesarean section delivery. *The Rand Journal of Economics*, 27(1), 99–123.

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

Johnson, E. M., & Rehavi, M. M. (2016). Physicians Treating Physicians: Information and Incentives in Childbirth. *American Economic Journal: Economic Policy*, 8(1), 115-141.

Further optional readings:

Johnson, E.M. (2014). Physician-Induced Demand. In *Encyclopedia of Health Economics*, Elsevier (Vol.3 pp.77-82).

Student seminar S1: Income Inequality and Health

Required readings:

Wilkinson, R. G. (1992). Income distribution and life expectancy. *BMJ*; 304:165.

Kaplan, G. A., E. R. Pamuk, J. W. Lynch, R. D. Cohen, and J. L. Balfour (1996). Inequality in income and mortality in the United States: analysis of mortality and potential pathways. *BMJ*; 312:999.

Leigh, A., & Jencks, C. (2007). Inequality and mortality: Long-run evidence from a panel of countries. *Journal of Health Economics*, 26(1), 1–24.

Grönqvist, H., Johansson, P., and Niknami, S. (2012). Income inequality and health: Lessons from a refugee residential assignment program. *Journal of Health Economics*, 31(4), 617–629.

Lectures 6 & 7: Causes and Consequences of Rising Health Care Expenditures

Required readings:

Almond, D., Jr, J. D., Kowalski, A., & Williams, H. (2010). Estimating marginal returns to

medical care: Evidence from at-risk newborns. *The Quarterly Journal of Economics*, 125(2), 591–634.

Cutler, D. M., & McClellan, M. (2001). Is Technological Change In Medicine Worth It? *Health Affairs*, 20(5), 11–29.

Cutler, D. M., McClellan, M., Newhouse, J. P., & Remler, D. (1998). Are Medical Prices Declining? Evidence from Heart Attack Treatments. *The Quarterly Journal of Economics*, 113(August), 991–1024.

Doyle, J., Graves, J., Gruber, J., & Kleiner, S. (2015). Measuring returns to hospital care Evidence from ambulance referral patterns. *The Journal of Political Economy*, 123(1), 170-214.

Newhouse, J. P. (1992). Medical care costs: how much welfare loss? *The Journal of Economic Perspectives*, 6(3), 3–21.

Skinner, J. S., Staiger, D. O., & Fisher, E. S. (2006). Is Technological Change In Medicine Always Worth It? The Case Of Acute Myocardial Infarction. *Health Affairs*, 25(2), w34–w47.

Further optional readings:

Bharadwaj, P., Løken, K. V., & Neilson, C. (2013). Early life health interventions and academic achievement. *The American Economic Review*, 103(5), 1862-1891.

Chernew, M. E., & Newhouse, J. P. (2012). *Health Care Spending Growth. Handbook of Health Economics Volume 2* (Vol. 2). Elsevier B.V.

Molitor, D. (2016). The Evolution of Physician Practice Styles: Evidence from Cardiologist Migration. Working Paper.

Lecture 8: Measuring Inequality in Health

Required readings:

Erreygers, G. Correcting the Concentration Index, *Journal of Health Economics* 2009; 28: 504–515

van Doorslaer, E, Koolman, X. 2004. Explaining the differences in income-related health inequalities across European countries. *Health Economics* 13:609-628.

Further optional readings:

Wagstaff, A., Van Doorslaer, E., Watanabe, N. On decomposing the causes of health sector inequalities with an application to malnutrition inequalities in Vietnam. *Journal of Econometrics* 2003; 112, 207–223.

Lecture 9: Health and Economic Development

Required readings:

Acemoglu, D., & Johnson, S. (2007). Disease and development: the effect of life expectancy on economic growth. *Journal of Political Economy*, 115(6), 925–985.

Fortson, J. G. (2011). Mortality risk and human capital investment: the impact of hiv/aids in sub-saharan africa. *The Review of Economics and Statistics*, 93(1), 1–15.

Further optional readings:

Jayachandran, S., & Lleras-Muney, A. (2009). Life Expectancy and Human Capital Investments: Evidence from Maternal Mortality Declines. *The Quarterly Journal of Economics*, 124(1), 349–397.

Juhn, C., Kalemli-Ozcan, S., & Turan, B. (2013). HIV and fertility in Africa: First evidence from population-based surveys. *Journal of Population Economics*, 26(3), 835–853.

Lecture 10: Working Time / Economic Valuation

Required readings:

Berniell, M., & Bietenbeck, J. (2017). The Effect of Working Hours on Health. IZA Discussion Paper.

Further optional readings:

Chapter 14 in Bhattacharya, J., Hyde, T., and P. Tu, (2014). *Health Economics*. Palgrave Macmillan.

Dolan, P. (2000). The measurement of health-related quality of life for use in resource allocation decisions in health care. *Handbook of Health Economics*, 1723-1760.

Student seminar S2: Health Fluctuations over the Business Cycle

Required readings:

Ruhm, C. Are Recessions Good for Your Health? *The Quarterly Journal of Economics* 115: 2 (May, 2000), pp. 617-650.

Gerdtham, U-G, Ruhm, CJ. Deaths Rise in Good Economic Times: Evidence from the OECD. *Economics and Human Biology* 2006; 4: 298-316

Gerdtham, U-G, Johannesson. Business Cycles and Mortality: Results From Swedish Micro Data. *Social Science and Medicine* 2005; 60, 205-218.

Schedule

Jan Bietenbeck (JB), Ulf Gerdtham (UG), Thomas Hofmarcher (TH), Gawain Heckley (GH)

| Week | Date | Time | Room | Content |
|---|----------|---------------|---------|---|
| 3 | Thu 1/19 | 08:00 – 10:00 | EC1:135 | Lecture 1 (JB) |
| 4 | Tue 1/24 | 08:00 – 10:00 | EC1:135 | Lecture 2 (JB) |
| 4 | Wed 1/25 | 08:00 – 10:00 | EC1:135 | Lecture 3 (JB) |
| 4 | Thu 1/26 | 08:00 – 10:00 | EC1:135 | Lecture 4 (UG) |
| 5 | Tue 1/31 | 08:00 – 10:00 | EC1:135 | Guest lecture (GH) |
| 5 | Thu 2/2 | 08:00 – 10:00 | EC1:135 | Lecture 5 (JB) |
| 6 | Tue 2/7 | 08:00 – 10:00 | EC1:135 | Seminar S1 – group 1 (JB, TH) |
| 6 | Wed 2/8 | 08:00 – 10:00 | EC1:135 | Seminar S1 – group 2 (JB, TH) |
| 6 | Thu 2/9 | 08:00 – 10:00 | EC1:135 | In-class examination E1 (JB) |
| 7 | Tue 2/14 | 08:00 – 10:00 | EC1:135 | Lecture 6 (JB) |
| 7 | Wed 2/15 | 08:00 – 10:00 | EC1:135 | Lecture 7 (JB) |
| 7 | Thu 2/16 | 08:00 – 10:00 | EC1:135 | Lecture 8 (UG) |
| 8 | Mon 2/20 | 12:00 – 14:00 | EC1:135 | Lecture 9 (JB) |
| 8 | Fri 2/24 | 12:00 – 14:00 | EC1:135 | Lecture 10 (JB) |
| 9 | Tue 2/28 | 08:00 – 10:00 | EC1:135 | Seminar S2 – group 1 (UG, TH) |
| 9 | Wed 3/1 | 08:00 – 10:00 | EC1:135 | Seminar S2 – group 2 (UG, TH) |
| 10 | Tue 3/7 | 08:00 – 10:00 | EC1:135 | In-class examination E2 (JB) |
| 10 | Fri 3/10 | 08:00 – 10:00 | EC1:135 | First re-take of in-class exams E1 and E2 |
| 10-11 | TBD | TBD | | Seminar S3 |
| <i>Still to be scheduled: second re-take of in-class examinations E1 and E2</i> | | | | |