Economía de la Salud

(4th semester Maestría en Economía 2013-2015, optional course)

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PRELIMINARY VERSION: 08 Jan 2015

Brief outline of the course

In the course, several issues related to decisions regarding health and health care, from the perspectives of (individual) consumers as well as health care providers will be discussed, where, of course, also the organization of the health care sector as a whole and the role of governments will be addressed.

I intend to discuss questions regarding

(1) Demand for and production of health;
(2) Demand for health care services, health behavior;
(3) Economic evaluation of health: cost-effectiveness analysis, QALY, cost-benefit analysis;
(4) Health insurance, risk selection;
(5) Organization of health insurance and health care delivery;
(6) Production of health care services, efficiency and effectiveness of care;
(7) Labor, migration, aging, and the implications for the health care sector.

The book of Zweifel et al., *Health Economics*, can be considered a good textbook at the Master's level (with the additional advantage that its perspective is less centered at the USA). A good introduction is also Folland et al., *The Economics of Health and Health Care*.

I will present and introduce some of the theoretical framework, but the focus will be on their relevance for and applications in empirical research. My discussion of the models and relevant literature will be extended by students' presentations of several papers. One or two empirical exercises will be used to familiarize with the application of empirical (econometric) techniques in health economics research.

In earlier years I have often spend some time on two econometric techniques, duration analysis and count data, that are frequently observed in labor and health economics. I expect I will do so again.

Schedule

This course will start in the week of January 19th (*hence, one week later than other courses*), while the last class is scheduled for the week of May 22nd.
There will be two lectures per week, both on Wednesday, from 14:30 to 16:00 and from 17:30 to 19:00 (*although I have in mind to switch teaching hours to 11:30-13:00 & 16:00-17:30; the same hours as the Math II course but most likely for a different audience*).

I try to convince a friend to teach some classes on *Theme 3 Economic evaluation*, a field in which she has much more experience than me. You can expect that there will be one week with additional classes - to be compensated in another week; I will try to take into account the planning regarding the presentation of the thesis advances.

The course will be opened if at least three students inscribe for the course. In addition I will welcome others who want to take the course as an auditor ('*oyente*'), as long as they fully participate in the course activities.

Requirements

There are no formal requirements. However, knowledge of the methods studied in the courses *Econometría 3* is recommended, while the course *Micro-econometría y evaluación de programas* addresses techniques that are relevant also in health economics. The book of Jeffrey Wooldridge, *Econometrics Analysis of Cross Section and Panel Data* (MIT Press, 2002, or the 2nd edition of 2010) is a good reference, in particular chapters 15-20 (logit and probit, censored data, sample selection issues, estimation of treatment effects, count data, duration models). As a good alternative you might consider A. Colin Cameron & Pravin K. Trivedi, *Microeconometrics,. Methods and Applications* (Cambridge UP, 2005), in particular chapters 14-20.

Teaching language is English. However for the exam, exercises and presentations you are free to use Spanish, English, Dutch (preferred!), or German.

Evaluation

The final evaluation will consist of:
- A final exam (based on class notes, books and papers) (50%),
- Empirical exercises (25%),
- Presentations of papers (25%).

Office hours

No fixed office hours; you can always make an appointment.
Cubículo 4487, extencíon 4087, email egameren@colmex.mx.

Literature (*preliminar!*)

The textbooks and general references, of which some parts will be used in the course, are:

- Zweifel, Peter, Friedrich Breyer, Mathias Kifmann (2009). *Health Economics*, 2nd ed., Berlin, Heidelberg: Springer Verlag.
- Folland, Sherman, Allen C. Goodman, Miron Stano (2007). *The Economics of Health and Health Care*, 5th ed., Pearson Prentice Hall.
- Glied, Sherry, Peter C. Smith (2011). *Oxford Handbook of Health Economics*. Oxford: Oxford University Press.

Below you find the list of additional literature and papers, some of which will be and/or were presented and discussed during the lectures *in earlier years*.

(0) Introduction: Why Health Economics?
- Zweifel et al., Chapter 1.
- World Bank, Online data. http://data.worldbank.org/indicator/
- Arrow, Kenneth J. (1963). Uncertainty and the Welfare Economics of Medical Care. *American Economic Review*, 53, 941-973.

- Sen, Amartya (2015). Universal healthcare: the affordable dream. *The Guardian*, Tuesday 06 January.

(1) Production of and Demand for Health

- Zweifel et al., Chapter 3-4.
- Grossman, Michael (1972). On the Concept of Health Capital and the Demand for Health, *Journal of Political Economy*, 80 (2), 223-255.
- Grossman, Michael (2000). The Human Capital Model of the Demand for Health. In: A.J. Culyer, J.P. Newhouse (eds.), *Handbook of Health Economics, Volume 1A*, pp. 347-408.
- Wagstaff, Adam (1986). The demand for health: some new empirical evidence. *Journal of Health Economics*, 5, 195–233.
- Wagstaff, Adam (1993). The demand for health: an empirical reformulation of the Grossman model. *Health Economics*, 2, 189–198.
- Leibowitz, Arleen A. (2004). The demand for health and health concerns after 30 years. *Journal of Health Economics*, 23 (4), 663-671.
- Galama, Titus, Arie Kapteyn (2011). Grossman's missing health threshold. *Journal of Health Economics*, 30 (5), 1044-1056.
- Galama, Titus, Patrick Hullegie, Erik Meijer, Sarah Outcault (2012). "Is There Empirical Evidence for Decreasing Returns to Scale in a Health Capital Model?" *Health Economics*, 21 (9), 1080-1100.
- Velandia Naranjo, Durfari, Edwin van Gameren (2014). *State-dependent health production. An empirical estimation for Mexico*. Unpublished manuscript (submitted).
- Case, Anna, Angus Deaton (2005). Broken Down by Work and Sex: How Our Health Declines. In: Wise, D.A. (ed.), *Analyses in the Economics of Aging*. The University of Chicago Press, Chicago, pp. 185–212.
- Gerdtham, Ulf-G., Magnus Johannesson (1997). New estimates of the demand for health: Results based on a categorical health measure and Swedish micro data. Stockholm School of Economics, Working Paper Series in Economics and Finance, no. 205 [revised version published in *Social Science & Medicine*, 49 (1999), 1325-1332].

(2) Demand for Health Care Services, Education, Health behavior, Rational addiction

- Winkelmann, Rainer (2008). *Econometric Analysis of Count Data*, 5th ed., Berlin, Heidelberg: Springer Verlag.
- Kiefer, Nicholas M. (1988). Economic Duration Data and Hazard Functions. *Journal of Economic Literature*, 26, 646-679.
- Pohlmeier, Winfried, Volker Ulrich (1995). An Econometric Model of the Two-Part Decisionmaking Process in the Demand for Health Care. *Jounral of Human Resources*, 30, 339-361.
- Winkelmann, Rainer (2004). Health care reform and the number of doctor visits – an econometric analysis. *Journal of Applied Econometrics*, 19, 455-472.
- Winkelmann, Rainer (2004). Co-payments for prescription drugs and the demand for doctor visits. *Health Economics*, 13, 1081-1089.
- Cutler, David, Adriana Lleras-Muney (2012). *Education and Health: Insights from International Comparisons*. NBER Working Paper 17738, National Bureau of Economic Research.
- Cawley, John, Christopher Ruhm (2012). The Economics of Risky Health Behaviors. In: Mark V. Pauly, Thomas G. McGuire & Pedro Pita Barros (eds.), *Handbook of Health Economics, Volume 2*, pp.95-199.

- Becker, Gary S., Kevin M. Murphy (1988). A Theory of Rational Addiction. *Journal of Political Economy*, 96, 675-700.
- Chaloupka, Frank (1991). Rational Addictive Behavior and Cigarette Smoking. *Journal of Political Economy*, 99, 722-742.
- Grossman, Michael, Frank J. Chaloupka (1998). The demand for cocaine by young adults: a rational addictions approach. *Journal of Health Economics*, 17, 427-474.
- Van Ours, Jan (2003). Is cannabis a stepping-stone for cocaine? *Journal of Health Economics*, 22, 539-554.

(3) Economic Evaluation of Health, Cost-effectiveness analysis

- Zweifel et al., Chapter 2.
- Drummond, Michael and Sculpher Mark. (2005). Methods for the Economic Evaluation of Health Care Programmes. Oxford University Press
- Gray, A. Clarke P. et. al (2011). Applied Methods of Cost-effectiveness Analysis in Healthcare. Oxford University Press.
- Instituto de Evaluación Tecnológica en Salud (2014). Manual metodológico de evaluación económica en salud. Disponible en http://www.iets.org.co/Manuales
- Doctor, Jason N., Han Bleichrodt, H. Jill Lin (2010). Health Utility Bias: A Systematic Review and Meta-Analytic Evaluation. *Medical Decision Making*, 30 (1), 58-67.
- Bleichrodt, Han, Magnus Johannesson (1997). Standard gamble, time trade-off and rating scale: experimental results on the ranking properties of QALYs. *Journal of Health Economics*, 16, 155-175.
- Bleichrodt, Han (2002). A new explanation for the difference between time trade-off utilities and standard gamble utilities. *Health Economics*, 11, 447-456.
- Bansback, Nick, John Brazier, Aki Tsuchiya, Aslam Anis (2012). Using a discrete choice experiment to estimate health state utility values. *Journal of Health Economics*, 31, 306-318.

(4) Health Insurance and Risk Selection

- Zweifel et al., Chapter 5-6-7; Folland et al., Chapter 8-10.
- Newhouse, Joseph P., and the Insurance Experiment Group (1993). *Free for All? Lessons from the RAND Health Insurance Experiment*. Cambridge, MA: Harvard University Press.
- Cutler, David. M., Richard J. Zeckhauser (2000). The Anatomy of Health Insurance. In: A.J. Culyer, J.P. Newhouse (eds.). *Handbook of Health Economics, Volume 1A*, pp. 563-643.
- Arrow, Kenneth J. (1963). Uncertainty and the Welfare Economics of Medical Care. *American Economic Review*, 53, 941-973.
- Feldman, Roger and Bryan Dowd (1991). A New Estimate of the Welfare Loss of Excess Health Insurance. *American Economic Review*, 81 (1), 297-301.
- Akerlof, George A. (1970). The Market for “Lemons”: Quality Uncertainty and the Market Mechanism. *Quarterly Journal of Economics*, 84 (3), 488-500.
- Rothschild, Michael, Joseph Stiglitz (1976). Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect. *Quarterly Journal of Economics*, 90 (4), 629-649.
- Dave, Dhaval, Robert Kaestner (2009). Health insurance and ex ante moral hazard: evidence from Medicare. *International Journal of Health Care Finance and Economics*, 9, 367–390.

- Van Kleef, Richard C., Wynand P.M.M. van de Ven, René C.J.A. van Vliet (2009). Shifted deductibles for high risks: More effective in reducing moral hazard than traditional deductibles, *Journal of Health Economics*, 28, 198–209.
- Hackmann, Martin B., Jonathan T. Kolstad, Amanda E. Kowalski (2012). *Health Reform, Health Insurance, and Selection. Estimating Selection into Health Insurance Using the Massachusetts Health Reform*. Cowles Foundation Discussion Paper No. 1841.
- Finkelstein, Amy, Sarah Taubman, et al. (2011). *The Oregon Health Insurance Experiment. Evidence from the First Year*. NBER Working Paper 17190.

(5) Organization of Health Insurance and Health Care Delivery

- Zweifel et al., Chapter 13; Folland et al., Chapter 19-22.
- Wagstaff, Adam (2010). Social Health Insurance Reexamined. *Health Economics*, 19, 503-517.
- Toth, Federico (2010). Healthcare policies over the last 20 years: Reforms and counter-reforms. *Health Policy*, 95, 82-89.
- Helen Levy, David Meltzer (2008). The Impact of Health Insurance on Health. *Annual Review of Public Health*, 29, 399–409.
- Edwin van Gameren (2011). The Health Insurance Reform in the Netherlands and its Relevance for Mexico. *Well-being and Social Policy*, 7 (1), 1-22.
- Wynand van de Ven, Erik Schut (2012). *Preconditions to Achieve Efficiency and Affordability in Competitive Healthcare Markets: Are They Fulfilled in Belgium, Germany, Israel, the Netherlands and Switzerland?* Session scheduled for the European Conference of Health Economists (ECHE), July 19-22, 2012, Zürich, Switzerland.
- Diana Pinto, William C. Hsiao (2007). Colombia. Social Health Insurance with Managed Competition to Improve Health Care Delivery. In: William C. Hsiao & R. Paul Shaw (eds.). *Social Health Insurance for Developing Nations*. World Bank, p.105–132.
- Beatriz Plaza, Ana Beatriz Barona, Norman Hearst (2001). Managed competition for the poor or poorly managed competition? Lessons from the Colombian health reform experience. *Health Policy and Planning*. 16 (suppl.2), 44-51.
- Grant Miller, Diana M. Pinto, Marcos Vera-Hernández (2009). *High-Powered Incentives in Developing Country Health Insurance: Evidence from Colombia's Régimen Subsidiado*. NBER Working Paper No. 15456
- Ramiro Guerrero, Ana Isabel Gallego, Victor Becerril-Montekio, Johanna Vásquez (2011). Sistema de salud de Colombia. *Salud Pública de México*, 53 (supl. 2), S144-S155.
- Aguilera, Nelly (2010). Una propuesta integral para mejorar el sistema de salud. In: Alejandro Castañeda Sabido (ed.), *Los grandes problemas de México. Volumen X: Microeconomía*, El Colegio de México, 343-375.
- Rodrigo Barros (2011). Wealthier But Not Much Healthier: Effects of a Health Insurance Program for the Poor in Mexico. update of a Stanford University working paper.

(6) Production of Health Care Services

- Zweifel et al., Chapter 9.
- Folland, Sherman T., Richard A. Hofler (2001). How reliable are hospital efficiency estimates? Exploiting the dual to homothetic production. *Health Economics*, 10, 683-698.

- Zuckerman, Stephen, Jack Hadley, Lisa Iezzoni (1994). Measuring hospital efficiency with frontier cost functions. *Journal of Health Economics*, 13, 255-280.
- Hollingsworth, Bruce (2003). Non-Parametric and Parametric Applications Measuring Efficiency in Health Care. *Health Care Management Science*, 6, 203-218.

(7) Labor, Migration, Demographic Changes, Aging

- Zweifel et al., Chapter 14.
- …(LTC: need of, demand for, and supply of LTC services)…
- …(relevance of health in labor decisions)…