



Syllabus

Seminar in Empirical Health Economics: Determinants of Health Outcomes in Developing Countries (Bachelor seminar)

B.WIWI-VWL.0044 | B.WIWI-VWL.0045 | B.WIWI-VWL.0046

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1. General information

1.1 Content of the seminar

Over the last decades, developing countries have accomplished massive progress on various health outcomes. For instance, in the last 30 years alone (1990-2020) child mortality rates declined by 61 percent (from 93 deaths per 1,000 live births to 37 deaths per 1,000 live births). Similarly positive developments have been achieved with respect to maternal mortality, life expectancy at birth, and malaria, tuberculosis, and HIV infections.

Despite the considerable success, caution is necessary with respect to any future progress as numerous challenges still exist. First, the incidence and prevalence of many illnesses and diseases is still at a high level – in particular in rural areas and among the poor. Second, new challenges have emerged that are – among others – due increasing antimicrobial resistance, a rise in non-communicable disease (e.g., diabetes, cancer), food insecurity, inefficient health-care systems, and climate change.

In this seminar, students shall learn – based on their own descriptive and multivariate data analysis – about the socio-economic determinants of good and poor health in developing countries. Following their own analysis, students shall identify key obstacles to address and suggest possible public policy solutions.

1.2 Objectives of the seminar

The objectives of the seminar are as follows:

- Acquisition and deepening of knowledge related to empirical health economics; in particular with respect to the modeling of health determinants in developing countries;
- Training of students regarding scientific work practices with a focus on literature research and the interpretation of empirical results and articles;
- Training of students in structuring scientific texts;
- Preparation of a country- and topic-specific term paper (see appendix);
- Training of students in descriptive and multivariate data analysis using the software package Stata;
- Presentation of the term paper and academic discussion with other students/the lecturer;
- Critical reflection of other students' presentations.

1.3 Prerequisites

Students should at least have already passed Econometrics I (bachelor) or another econometrics class. In fact, we strongly recommend to only attend the seminar if you possess basic knowledge in econometrics. Previous knowledge in Stata is advantageous but not a prerequisite.

1.4 Credits

6 ECTS-LP

1.5 Registration

- Initial registration: Students should register for the seminar until 21 April 2022 via Stud IP;
- ECTS-LP registration: In order to receive ECTS-LP, students must register for the seminar at FlexNow until Friday, 6 May 2022.

2. Overview about the seminar

2.1 Description of teaching and learning methods

In addition to the official seminar dates (see below), it is expected that students acquire further knowledge through their own efforts (own literature research, Stata training). The introductory meeting will provide students with information regarding the seminar's content, requirements, and administrative issues. During the first three meetings, students will be trained in the handling of the software package Stata which students must use for their own analyses (part of the presentation and the term paper). By writing a concise term paper students demonstrate that they (i) can conduct basic empirical tasks and analyses and (ii) are able to structure and write a piece of scientific work. By giving a presentation, participating in the seminar's discussion, and through commenting on other students' work, students showcase their ability to engage in critical academic discourse. The seminar includes two virtual Q&A sessions which students can make use of to discuss their progress and work with the lecturer and other students. **The seminar will be held in English.**

2.2 Schedule

IMPORTANT: Predominantly, the seminar will take place in presence at the facilities of the University of Göttingen. Due to the current COVID-19 pandemic, it might be that parts of the seminar or the entire seminar will take place virtually only. We ask you to register for the seminar on Stud.IP prior to the introductory meeting (21 April 2022). Any updates and relevant literature will be posted via Stud.IP.

Zoom-Link for Online Meetings

<https://uni-goettingen.zoom.us/j/93399962983?pwd=eGd4S2pGcW1CbHpxcGg1c05MUHdsdz09>

Meeting-ID: 933 9996 2983; Code: 175815

Introductory Meeting (Thursday, 21 April 2022, 16:00-20:00 c.t., Room: see UniVZ)

- Introduction to empirical health economics in developing countries
- Administrative issues related to accessing the software package Stata
- Allocation of term paper topics

Introduction to Stata (Friday, 22 April 2022, 14:00-18:00 c.t., Room: see UniVZ)

- Basic structure
- Data cleaning
- Descriptive and multivariate analyses

Survival analysis using Stata (Thursday, 5 May 2022, 16:00-18:00 c.t., via Zoom)

- Introduction to event-history survival analysis
- Exercises

Questions & Answers (Q&A) (Friday, 20 May 2022, 16:00-18:00 Uhr c.t., via Zoom)

- Interactive session to discuss progress, challenges, solutions, and administrative matters
- Feedback and input by the lecturer

Submission of own presentation (Monday, 30. May 2022, 23:59)

Students must upload an electronic copy of their presentation (as pdf) to Stud.IP to allow other students to comment on their work.

Term paper presentation (Thursday, 2 June 2022, 16:00-20:00 c.t. and Friday, 3 June 2022, 9:00-16:00 c.t., Room: see UniVZ)

Each student will present the first draft of their own term paper and comment on the presentation of two other students. Regarding a student's own presentation, it is expected that appropriate slides are used. Slides are not required for the discussion of other students' work. The presentation should last about 20 minutes, while the discussion of other student's presentation shall last for about 5 minutes. During the presentation session, each term paper is allocated 45 minutes: 20 minutes own presentation, 10 minutes of comments from other students, 15 minutes for a general discussion.

Questions & Answers (Q&A) (Friday, 10 June 2022, 16:00-18:00, via Zoom)

- Interactive session to discuss progress, challenges, solutions, and administrative matters
- Feedback and input by the lecturer

Submission of the term paper (final version) (Friday, 24 June 2022, 23:59)

The final term paper is due by 24 June 2022 and must be uploaded as pdf via Stud IP. In addition to the term paper students need to upload and share all files that are needed for the replication of the empirical results ('soft coding requirement').

2.3 Deliverables, examination, and grading

The final grade consists of the following three components:

- Term paper [75%]
- Presentation of the term paper [20%]
- Discussion of the presentation of two other students [5%]

To pass the seminar, students will need to fulfill the following requirements in addition:

- Be present and participate actively during all seminar events;
- Timely submission of all deliverables (slides, term paper);
- Achieve a minimum grade of 4.0 for the term paper;
- Achieve a component-weighted average of at least 4.0.

2.4 Course materials

Articles and reports---Examples:

- Almond, D., and J. Currie. (2011). Killing Me Softly: The Fetal Origins Hypothesis. *Journal of Economic Perspectives*, 25 (3): 153-72.
- Ashraf, N., E. Field, G. Rusconi, A. Voena, and R. Ziparo. (2017). Traditional Beliefs and Learning about Maternal Risk in Zambia. *American Economic Review*, 107 (5): 511-15.
- Baranov, V., S. Bhalotra, P. Biroli, and J. Maselko. (2020). Maternal Depression, Women's Empowerment, and Parental Investment: Evidence from a Randomized Controlled Trial. *American Economic Review*, 110 (3): 824-59.
- Berazneva, Julia, and Tanya S. Byker. (2017). Does Forest Loss Increase Human Disease? Evidence from Nigeria. *American Economic Review*, 107 (5): 516-21.
- Björkman Nyqvist, M., and S. Jayachandran. (2017). Mothers Care More, but Fathers Decide: Educating Parents about Child Health in Uganda. *American Economic Review*, 107 (5): 496-500.
- Borra, C., L. González, and A. Sevilla. (2016). Birth Timing and Neonatal Health. *American Economic Review*, 106 (5): 329-32.
- Cutler, D., A. Deaton, and A. Lleras-Muney (2006). The determinants of mortality. *Journal of Economic Perspectives*, 20 (5): 97-120.
- Das, J., J. Hammer, and K. Leonard. 2008. The Quality of Medical Advice in Low-Income Countries. *Journal of Economic Perspectives*, 22 (2): 93-114.
- Deaton, A. (2008). Income, health, and well-being around the world: Evidence from the Gallup World Poll. *Journal of Economic Perspectives*, 22(2), 53-72.
- Deaton, A. (2003). Health, inequality, and economic development. *Journal of Economic Literature*, 41: 113-158.
- GBD. (2018). Measuring progress from 1990 to 2017 and projecting attainment to 2030 of the health-related Sustainable Development Goals for 195 countries and territories: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*, 392 (10159): 2091-2138.

- GBD. (2019). Global burden of 369 diseases and injuries in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 396 (10258): 1204-1222.
- GBD. (2020). Global burden of 87 risk factors in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 396 (1025): 1223-1249.
- Lowes, S., and E. Montero. (2021). The Legacy of Colonial Medicine in Central Africa. *American Economic Review*, 111 (4): 1284-1314.
- Steckel, R.H. (2008). Biological Measures of the Standard of Living. *Journal of Economic Perspectives*, 22 (1): 129-152.
- Unicef. (2019). The state of the world’s children 2019: Children, food and nutrition: Growing well in a changing world. United Nations Children’s Fund.
- World Bank. (2018). Delivering quality health services: A global imperative for universal health coverage. World Bank, World Health Organization, Organization for Economic Cooperation and Development.
- World Bank. (1993). World Development Report 1993: Investing in Health. Washington. D.C., USA.

Recommended literature for those who would need to learn more about Stata:

- Stud.IP-Kurs an der Georg-August Universität Göttingen: “Self-Study Course for Stata”; erstellt durch die Professur Sebastian Vollmer
- Cameron, C.A. and P.K. Trivedi (2010). *Microeconometrics Using Stata* (revised edition). Stata Press.
- Survival Analysis with Stata. Website: <https://stats.oarc.ucla.edu/stata/seminars/stata-survival/>. Zugriff am 26.1.2022.

Recommended literature on how to write and structure a term paper:

- Hamm, U. (2020). Guidelines for the composition of a bachelor/master thesis or project work. Department of Rural Development. University of Kassel. Weblink: https://www.uni-kassel.de/projekte/fileadmin/datas/projekte/studienportfolio/IFBCS/Kapitel_3/Guidelines_fo_r_Composition_of_Master_thesis.pdf. Accessed: 3 February 2022.
- Kiel University (2020). Guidelines for writing a thesis or seminar paper. Department of Economics. Weblink: <https://www.wiso.uni-kiel.de/de/studium/dateien-studienfaecher/leitfaden-fuer-wissenschaftliche-arbeiten/guideline-for-seminar-papers-bachelors-theses-and-masters-theses>. Accessed: 3 February 2022.

3. Expectations and requirements related to the term paper

The term paper consists of 15 pages (maximum). Tables and figures are included in this count. In contrast, the following is not counted for the page limit: title page, table of contents, bibliography, appendix. The text of the term paper should be formatted as follows: 12pt in Times New Roman with a line spacing of 1.15pt. The page margins should be 2.5cm (top, bottom, left, right). Appendices should contain details on the data, data analysis, and tables/figures that provide background information. Essential tables and figures should appear in the main text. The term paper should use the selected citation style consistently.

Every idea, statement, and fact that originates from another source of literature, must be stated and cited correctly. Plagiarism will be sanctioned with the grade 5 (failed). The general rules of the Faculty of Business and Economics regarding term and seminar papers must be followed (please see the “Guidelines for the preparation of a final thesis paper” which are posted here: <https://www.uni-goettingen.de/en/574058.html>). Among others, this means that the term paper should include the following declaration: *"I hereby declare that I wrote this paper independently, without assistance from external parties, and without use of other resources than those indicated. All information taken from other publications or sources in text or in meaning are duly acknowledged in the text. The written and electronic forms of the paper are the same. I give my consent to have this paper checked by plagiarism software."*

Footnotes are allowed, while endnotes are not permitted. The selected citation style should be a style that is commonly applied in the economic literature, e.g., the Harvard-system style. Literature cited in the main text (incl. footnotes) must appear in the bibliography. The bibliography must not contain literature that was not cited in the main text (incl. footnotes).

A good term paper is characterized by the following:

- Clear and concise structure, language, and argumentation
- Detailed and systematic exposition of the relevant literature
- Purposeful use of empirical results in form of tables and figures
- Precise interpretation of statistical results
- Objectivity and reproducibility

The term paper must be in English language and be written by the student without assistance from others.

Analysis with Stata: At time of submission of the term paper, the student must provide all files that are required for the replication of all results. This includes the following files: raw data, cleaned data,

Stata .do files, and description files (pdf, Word). Students are asked to follow a ‘soft coding’ procedure which implies that paths and files are coded in a way that allow for a fast reproducibility of results.

Appendix 1: Demographic and Health Survey Datasets

Nr.	Topic	Country	Data sets
1	Breastfeeding	Cambodia	DHS 2014, DHS 2010, DHS 2005
2	Birth spacing	Malawi	DHS 2015-16, DHS 2010, DHS 2000
3	Smoking	Indonesia	DHS 2017, DHS 2012, DHS 2007
4	HIV	Zambia	DHS 2018, DHS 2013-14, DHS 2007
5	Malaria	Zimbabwe	DHS 2015, DHS 2011, DHS 2005-06
6	Anemia	Uganda	DHS 2016, DHS 2011
7	Female genital mutilation	Nigeria	DHS 2018, DHS 2013, DHS 2003
8	Child vaccinations	Cameroon	DHS 2018, DHS 2011, DHS 2004
9	Child vaccinations	Ethiopia	DHS 2016, DHS 2011, DHS 2005
10	Child nutritional status (anthropometrics)	India	DHS 2015-16, DHS 2005-06
11	Child nutritional status (anthropometrics)	Bangladesh	DHS 2017-18, DHS 2014, DHS 2011
12	Infant and child mortality	Pakistan	DHS 2017-18, DHS 2012-13, DHS 2006-07
13	Infant and child mortality	Philippines	DHS 2017, DHS 2013, DHS 2003
14	Maternal mortality	Ghana	DHS 2014, DHS 2008, DHS 2003
15	Maternal mortality	Kenia	DHS 2014, DHS 2008-09, DHS 2003