

AFRICAN ECONOMIC RESEARCH CONSORTIUM (AERC)

COLLABORATIVE MASTERS DEGREE PROGRAMME (CMAP) IN ECONOMICS FOR SUB-SAHARAN AFRICA JOINT FACILITY FOR ELECTIVES



HEALTH ECONOMICS COURSE OUTLINE (Revised July, 2020)



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PART I: SUMMARY OF MAJOR TOPICS

<i>Thematic Time Allocation Plan - PART 1</i>				
	Topic	Lecture Hours	Seminar Hours	Total Hours
1	Introduction to Health and Healthcare	5	2	7
2	Introduction to Health Economics	3	1	4
3	Demand and Supply of Health	14	2	16
4	Markets and Market Failure in Health and Health Care	16	9	25
5	Health Insurance	5	3	8
Total Hours		43	17	60
<i>Thematic Time Allocation Plan - PART II</i>				
6	Economic Evaluation of Health Interventions	13	3	16
7	Health and Development	8	3	11
8	Health Systems and Financing	10	3	13
9	Health Policy and Reforms I	7	3	10
10	Health Policy and Reforms II	7	3	10
Total Hours		45	15	60



PART II: DETAILED OUTLINE AND READING LIST

I. COURSE GOAL, OBJECTIVES, DELIVERY AND ASSESSMENT

1.1 Course Goal

The goal of the course is to expose students to health economics as a branch of economics in order to develop an understanding of economic principles as applied to health and health care. Emphasis will focus on developing countries in general and Africa in particular.

1.2 Course Objectives

On completion of this course students should, among other things, be able to:

- Apply economic concepts and techniques to analyze issues in health and health care;
- Understand the principles and techniques of economic evaluation of health interventions using the basic principles of epidemiology;
- Analyze health systems and health policy issues within the African context;

1.3 Prerequisite

Students should have passed CMAP microeconomics, macroeconomics and quantitative methods or equivalents.

1.4 Methods of Course Delivery and Assessment

The course applies a combination of lectures, class discussions (seminar sessions), case studies and practical exercises. Student participation is a key component of the course (i.e. student-centered active learning). It is expected that students will be responsible for integrating assigned readings into class discussions and assignments. Class lectures, case studies, discussions and practicals will provide an opportunity for students to apply what they have learned. It is expected that the instructor will provide empirical examples to illustrate concepts and issues discussed in each topic.

Final grades will be determined by taking into consideration the grade obtained from continuous assessment and final examination which carry, 40% and 60%, respectively.

The continuous assessment grade of 40% will be broken down as follows:

- Active class participation: 5%
- Take home assignments: 10%
- In-class tests: 15%
- Compulsory practical case study: 10%

1.5 Learning Outcomes

At the end of the course, students are expected to have acquired the basic knowledge and tools to work in the field of health economics. Having successfully completed the course, students should be able to:



- Demonstrate knowledge, understanding and application of a range of established techniques of enquiry in Health Economics.
- Analyze health systems and health policy issues particularly within the African context.
- Undertake advanced courses in Health Economics.

II. READING LIST

Given the nature of the course, there is no single textbook that will cover all of the issues in detail. Further, one intended aim of the course is to encourage broader reading around the topics, and to develop skills in synthesizing materials from more than one source. Materials in the reading list are all available in JFE library/resource centre. At least one of the following books is worth purchasing:

Core Readings

Rice, T.H. and Unruh, L. (2015). *The Economics of Health Reconsidered*. Chicago: Health Administration Press 4th Edition

Phelps, C.E. (2012). *Health Economics*, Fifth Edition. (The Pearson Series in Economics) Publisher: Routledge, ISBN-13: 978-0132948531 ISBN-10: 0132948532

Folland, S., Goodman, A. and Stano, M. (2016). *The Economics of Health and Health Care*. Pearson International Edition Seventh Edition. Routledge. ISBN-10: 1292020512 or ISBN-13: 978-1292020518

Bhattacharya, J., Hyde, T. and Tu, P. (2013). *Health Economics* Palgrave. ISBN-10: 113702996X and ISBN-13: 978-1137029966

Witter, S., Ensor, T., Jowett, M. and Thompson, R. (2015). *Health Economics for Developing Countries: A Practical Guide*. KIT Publishers, 2015. ISBN-13: 978-9460221316
ISBN-10: 9460221319

Santerre, R.E. and Neun, S.P. (2013). *Health Economics: Theories, Insights and Industry Studies*. Thomson South-Western, Cengage Learning. Sixth Edition ISBN-10: 1111822727 | ISBN-13: 9781111822729

Cuyler, A.J. (2014) *Encyclopedia of Health Economics: 3 Volume Edition* Elsevier First edition ISBN-10: 0123756782 and ISBN-13: 978-0123756787

Feldstein, P.J. (2012) *Health Care Economics*, 7th Edition, Cengage Learning Publishers Inc.
ISBN-10: 1111313261 | ISBN-13: 9781111313265



Drummond M.F, Sculpher, M.J., Torrance, G.W, O'Brien B.J. and Stoddart, G.L. (2015). *Methods for the Economic Evaluation of Health Care Programmes*. Fourth Edition, Oxford University Press ISBN: 9780199665884

Cost and Cost-Effectiveness Analysis of a Bundled Intervention to Enhance Outcomes after Stroke in Nigeria: Rationale and Design. Olanrewaju Olaniyan, Mayowa O. Owolabi, Rufus O. Akinyemi, Babatunde L. Salako, Samantha Hurst, Oyedunni Arulogun, Mulugeta Gebregziabher, Ezinne Uvere, Bruce Ovbiagelee. *NeurologicalSci*. Author manuscript; available in PMC 2015 December 2. Published in final edited form as: *eNeurologicalSci*. 2015 June; 1(2): 38–45. doi: 10.1016/j.ensci.2015.09.003

The Impact of Company-Level ART Provision to a Mining Workforce in South Africa: A Cost–Benefit Analysis. Gesine Meyer-Rath, Jan Pienaar, Brian Brink, Andrew van Zyl, Debbie Muirhead, Alison Grant, Gavin Churchyard, Charlotte Watts, Peter Vickerman. *PLoS Med*. 2015 September; 12(9): e1001869. Published online 2015 September 1. doi: 10.1371/journal.pmed.1001869

A Multifaceted Intervention to Improve the Quality of Care of Children in District Hospitals in Kenya: A Cost-Effectiveness Analysis. Edwine W. Barasa, Philip Ayieko, Susan Cleary, Mike English. *PLoS Med*. 2012 June; 9(6): e1001238. Published online 2012 June 12. doi: 10.1371/journal.pmed.1001238
PMCID: PMC3373608

Economic Evaluations of Interventions to Reduce Neonatal Morbidity and Mortality: A Review of the Evidence in Lmics and Its Implications for South Africa. Mandy Maredza, Lumbwe Chola, Karen Hofman. *Cost Eff Resour Alloc*. 2016; 14: 2. Published online 2016 January 26. doi: 10.1186/s12962-015-0049-5. PMCID: PMC4728765 ArticlePubReaderPDF–988KCitation

Does Integration of HIV and Sexual and Reproductive Health Services Improve Technical Efficiency in Kenya and Swaziland? An Application of a Two-Stage Semi Parametric Approach Incorporating Quality Measures. Carol Dayo Obure, Rowena Jacobs, Lorna Guinness, Susannah Mayhew, Integra Initiative, Anna Vassall. *Soc Sci Med*. 2016 February; 151: 147–156. doi: 10.1016/j.socscimed.2016.01.013

Efficiency of Private and Public Primary Health Facilities Accredited By the National Health Insurance Authority in Ghana. Robert Kaba Alhassan, Edward Nketiah-Amponsah, James Akazili, Nicole Spieker, Daniel Kojo Arhinful, Tobias F Rinke



de Wit Cost Eff Resour Alloc. 2015; 13: 23. Published online 2015 December 26. doi: 10.1186/s12962-015-0050-z

In addition to above texts, some suggestions for extended reading are provided below. These consist of articles considered to be 'classics' (i.e. 1960s and early 1970s) in the area of health economics, as well as a number of more recent articles. Note that the recent articles are by no means exhaustive, but rather have been chosen to give students an insight into the growing literature in the field of health economics.

The following journals and websites are recommended:

1. Journal of Health Economics, Elsevier Science, North-Holland
2. Health Economics, Wiley Science
3. Journal of Human Resources, The University of Wisconsin Press
4. Health Policy and Planning, Oxford University Press
5. Social Science and Medicine, Elsevier Science
6. Health Policy, Elsevier Science, Ireland
7. Journal of Health Care Finance, Aspen
8. Applied Health Economics and Policy
9. European Journal of Health Economics, Springer
10. International Journal of Health Planning and Management
11. International Journal of Health Services
12. International Journal of Health Care Finance and Economics, Springer
13. www.nber.org
14. www.healtheconomics.org
15. www.who.int
16. www.worldbank.org
17. www.aercafrica.org



SEMESTER ONE: HEALTH ECONOMICS I (60 HOURS)

1) Introduction to Health and Healthcare (7 Hours)

- Public health; community health and population health
- Meaning of epidemiology
- Incidence versus prevalence
- Economic Epidemiology
- Prevention (Education, Nutrition and Immunization)
- Economics of Common Diseases in Developing Countries

Readings

Creatively listen to Introduction to Public Health available at:
<https://www.youtube.com/watch?v=-dmJSLNgjxo>

Starfield, B. (2001) Basic concepts in population health and health care, *J Epidemiol Community Health* 2001;55:452–454. Available at:
<https://jech.bmj.com/content/jech/55/7/452.full.pdf>

Kindig, D. and G. Stoddart (2003) What Is Population Health? *American Journal of Public Health* | March 2003, Vol 93, No. 3, pp. 380-383.

Kindig, D. (2007) Understanding Population Health Terminology, *The Milbank Quarterly*, Vol. 85, No. 1, 2007, pp. 139–161. Available at:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2690307/pdf/milq0085-0139.pdf>

Maraccini, A. M., P. Galiatsatos, M. Harper et al. (2017) Creating clarity: Distinguishing between community and population health, *The American Journal of Accountable Care*, Vol.6, No. 17, pp.32-37.

Noorzidj, M., F. W. Dekker, C. Zoccali and K. J. Jager (2010) Measures of Disease Frequency: Prevalence and Incidence, *Nephron Clinical Practice*, Vol. 115, pp. c17-c20, available at: <https://www.karger.com/Article/Pdf/286345>

For a historical evolution of epidemiology, read: **Chapter 2: Historic Developments in Epidemiology**, available at:
https://samples.jbpub.com/9780763766221/66221_CH02_5398.pdf

Timen, A., G. J. J. van Doornum, M. Schutten et al. (2006) Public health implications of using various case definitions in The Netherlands during the worldwide SARS outbreak, *Clinical Microbiology and Infection*, Vol. 12, No. 12, pp. 1214–1220. Available at:
<https://www.sciencedirect.com/science/article/pii/S1198743X14628743>



Naito, M. (2014) Utilization and Application of Public Health Data in Descriptive Epidemiology, *Journal of Epidemiology*, Vol. 24, No.6, pp.435-436. Available at:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4213216/>

Chapter 4 Descriptive Epidemiology: Pattern of Disease- Person, Place and Time, available at: <https://samples.jbpub.com/9780763754433/Chapter4.pdf>

Heaton, B. and T. Dietrich (2000) Analytic epidemiology and periodontal diseases, *Periodontology 2000*, Vol. 58, 2012, pp.112–120, available at:

https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1600-0757.2011.00419.x?casa_token=1nGTjCDVtOkAAAAA:xPR4s7ZOIDKEJuoL7Aat1InhCwfgDv1SU0LLHGcMJOTtNdnETXXwexfZBGuXPOqhLIPXIsWyhcrPi2OL

Chapter 2 Epidemiology, available at:

https://samples.jblearning.com/9781284166606/9781284188479_CH02_Secured.pdf

Epidemiologic Triangle, available at: https://www.youtube.com/watch?v=1r_u5_p-WQA

Chapter 12 Epidemiologic Triad, available at: <https://courses.lumenlearning.com/suny-buffalo-environmentalhealth/chapter/epidemiological-triad-overview/>

Chapter 1 Foundations of Epidemiology, available at:

https://samples.jbpub.com/9780763766221/66221_CH01_5398.pdf

Poundstone, K. E., S. A. Strathdee and D. D. Celentano (2004) The Social Epidemiology of Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome, *Epidemiologic Reviews*, Vol. 26, pp. 22-35. Available at:

<https://academic.oup.com/epirev/article/26/1/22/384205>.

Principles of Epidemiology, available at:

<http://www.cphi.ca/hamilton/Content/documents/principles.pdf>

Chapter 1 Foundations of Epidemiology, available at:

https://samples.jbpub.com/9780763766221/66221_CH01_5398.pdf

Epidemiology in Public Health Practice, available at:

<https://academic.oup.com/aje/article/174/7/871/116502>



Díaz-Vélez et al. (2013) Clinical Epidemiology and its Relevance for Public Health in

Developing Countries, available at:

<https://www.intechopen.com/books/current-topics-in-public-health/clinical-epidemiology-and-its-relevance-for-public-health-in-developing-countries> Health in Developing Countries

Communicable Diseases Module: 1. Basic Concepts in the Transmission of Communicable Diseases, available at:

<https://www.open.edu/openlearncreate/mod/oucontent/view.php?id=84&printable=1#:~:text=Direct%20modes%20of%20transmission%20can,during%20coughing%2C%20sneezing%20or%20talking.>

Centre for Health Protection-Department of Health (2019) Guidelines on Prevention of Communicable Diseases in Residential Care Homes for Persons with Disabilities, available at:

https://www.chp.gov.hk/files/pdf/guideline_prevention_of_communicable_diseases_rchd.pdf

2) Introduction to Health Economics (4 Hours)

- Disease, illness, sickness, and health
- The nature of healthcare: need versus demand
- Various models of health and disease (Biomedical model; Holistic health model; Biopsychosocial Model; Ethnomedical Cultural Model; and Ecological-Transactional Model)
- Various issues considered by health economics – Scope of Health Economics (determinants of health (other than health care); measurement of health; the demand for health care; the supply of health care; microeconomic evaluation at the treatment level; the results of economic evaluation inform the choices of suppliers and purchasers and the creation of market equilibrium; the evaluation of the entire health system; and the evaluation of mechanisms to change the health system)
- Health and healthcare

Readings

Boyd, K. M. (2000) Disease, illness, sickness, health, healing and wholeness: exploring some elusive concepts, *Journal of Medical Ethics: Medical Humanities*, Vol. 26, pp.9–17.

Sartorius, N. (2006) The Meanings of Health and its Promotion, available at:



https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2080455/pdf/CroatMedJ_47_0662.pdf

Svalastog et al. (2017) Concepts and definitions of health and health-related values in the knowledge landscapes of the digital society, available at:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5778676/pdf/CroatMedJ_58_0431.pdf

Health and Illness, https://www.aihw.gov.au/getmedia/fc2c053f-7707-437e-90b3-227818bba0a5/1_1-health-illness.pdf.aspx

Boruchovitch and Mednick (2002) The meaning of health and illness: some considerations for health psychology, <http://www.scielo.br/pdf/pusf/v7n2/v7n2a06.pdf>

American Economic Review, Vol. 53, No. 5, pages 941-973. Available at: https://web.stanford.edu/~jay/health_class/Readings/Lecture01/arrow.pdf

Miller, W.L. (1988) Models of Health, Illness, and Health Care. In: Taylor R.B. (eds) *Family Medicine*. Springer, New York, NY. Available at: https://link.springer.com/chapter/10.1007/978-1-4757-1998-7_4

Jakovljevic, M. and S. Ogura (2016) Health economics at the crossroads of centuries – From the past to the future, *Frontiers in Public Health*, Vol. 4, Article 115, pp.1-5, available at: <https://www.frontiersin.org/articles/10.3389/fpubh.2016.00115/full>

Kernick, D. P. (2003) Introduction to health economics for the medical practitioner, *Postgraduate Medical Journal*, Vol. 79, pp.147–150. Available at: <https://pmj.bmj.com/content/postgradmedj/79/929/147.full.pdf>

Maynard, A. and P. Kanavos (2000) Health economics: an evolving paradigm, *Health Economics*, Vol. 9, pp. 183–190. Available at: <https://onlinelibrary.wiley.com/doi/epdf/10.1002/%28SICI%291099-1050%28200004%299%3A3%3C183%3A%3AAID-HEC515%3E3.0.CO%3B2-I>

World Health Organization (2003) Learning to Live with Health Economics, available at: <https://apps.who.int/iris/bitstream/handle/10665/107690/E88172.pdf;jsessionid=3BD8CF343A6C65A9FACA8E7C0551C20F?sequence=1>

3) Demand and Supply of Health (16 Hours)

3.1) Demand for health and health care



- Determinants of demand for health and healthcare
 - The Grossman Model
 - Empirical measurement: RAND Health Insurance Experiment and Household Income and Expenditure Surveys
- 3.2) Supply and Cost functions for healthcare providers
- Determinants of supply of healthcare
 - Production functions of healthcare
 - Adoption of medical technology and healthcare productivity
 - Cost functions including hospital cost and efficiency analysis

Readings

Folland, S., Goodman, A. and Stano, M. (2016). *The Economics of Health and Health Care*. Pearson International Edition Seventh Edition. Routledge. ISBN-10: 1292020512 or ISBN-13: 978-1292020518

Rice, T.H. and Unruh, L. (2015). *The Economics of Health Reconsidered*. Chicago: Health Administration Press 4th Edition

Feldstein, P.J. (2012) *Health Care Economics*, 7th Edition, Cengage Learning Publishers Inc. ISBN-10: 1111313261 | ISBN-13: 9781111313265

Witter, S., Ensor, T., Jowett, M. and Thompson, R. (2015). *Health Economics for Developing Countries: A Practical Guide*. KIT Publishers, 2015. ISBN-13: 978-9460221316 ISBN-10: 9460221319

4) The Healthcare Market (25 Hours)

- Perfect competition
- Comparative statics - shifts in demand and supply curves
- Characteristics of healthcare goods and services
 - Healthcare as a public good
 - Positive and negative externalities in healthcare
- Market failure
 - Asymmetric information (moral hazard and adverse selection)
 - Externalities in healthcare
 - Principal-Agent Model (Supplier-induced demand)
- Role of government in healthcare
- Markets for healthcare workers
- Markets for pharmaceuticals
 - Pricing
 - Regulation
- A model of equilibrium quality and price



Readings

Nicolson, W. (1985). *Microeconomic Theory, Basic Principles and extensions*. 3rd ed. Orden Press Holt, Rinerhart and Winston. ISBN 4-8337-0244-4

Varian, H.(1992) *Microeconomic Analysis*. 3rd Ed. W. W. Norton and company Ltd 10 coptic street, London. ISBN 0-393-95735-7

Zweifel,P., Breyer F., Kifmann,M.(2009). *Health Economics*, 2nd ed. DOI10.1007/978-3-540-68540-1_1, Springer-Verlag Berlin Heidelberg.

Folland, S., Goodman, A. and Stano, M. (2016). *The Economics of Health and Health Care*. Pearson International Edition Seventh Edition. Routledge. ISBN-10: 1292020512 or ISBN-13: 978-1292020518

Rice, T.H. and Unruh, L. (2015). *The Economics of Health Reconsidered*. Chicago: Health Administration Press 4th Edition

Feldstein, P.J. (2012) *Health Care Economics*, 7th Edition, Cengage Learning Publishers Inc. ISBN-10: 1111313261 | ISBN-13: 9781111313265

Witter, S., Ensor, T., Jowett, M. and Thompson, R. (2015). *Health Economics for Developing Countries: A Practical Guide*. KIT Publishers, 2015. ISBN-13: 978-9460221316 ISBN-10: 9460221319

Jack, W(199). *Principle of health Economics for developing countries*. World Bank Development studies. ISBN 0-8213-4571-0

5) Health Insurance (8 Hours)

- Theory of health insurance
- The Demand for and Supply of Health insurance
- Market failure in health insurance markets
- Payment and reimbursement mechanisms
 - Managed care; National Health Insurance Fund/Scheme
 - Value-based purchasing

Readings

Zweifel,P., Breyer F., Kifmann,M.(2009). *Health Economics*, 2nd ed. DOI10.1007/978-3-540-68540-1_1, Springer-Verlag Berlin Heidelberg.

Folland, S., Goodman, A. and Stano, M. (2016). *The Economics of Health and Health Care*. Pearson International Edition Seventh Edition. Routledge. ISBN-10: 1292020512 or ISBN-13: 978-1292020518



Rice, T.H. and Unruh, L. (2015). *The Economics of Health Reconsidered*. Chicago: Health Administration Press 4th Edition

Feldstein, P.J. (2012) *Health Care Economics*, 7th Edition, Cengage Learning Publishers Inc. ISBN-10: 1111313261 | ISBN-13: 9781111313265

Witter, S., Ensor, T., Jowett, M. and Thompson, R. (2015). *Health Economics for Developing Countries: A Practical Guide*. KIT Publishers, 2015. ISBN-13: 978-9460221316 ISBN-10: 9460221319

Jack, W(199). *Principle of health Economics for developing countries*. World Bank Development studies. ISBN 0-8213-4571-0

Zweifel,P., Breyer F., Kifmann, M. (2009). *Health Economics, 2nd ed*. DOI10.1007/978-3-540-68540-1_1, Springer-Verlag Berlin Heidelberg. Library of Congress Control Number 2009931221.

SEMESTER TWO: HEALTH ECONOMICS II (60 HOURS)

6) Introduction to Economic Evaluation of Health Interventions (18 Hours)

- Methods of Economic Evaluation of Health Care interventions
 - Cost Analysis
 - Cost Effectiveness Analysis (modeling decision outcomes)
 - Cost Utility Analysis
 - Cost Benefit Analysis
- Comparative Effectiveness Research (CER)
- Randomized Controlled Trials (RCTs)
- Applications to Economic Evaluation of Health Care interventions
- Impact analysis of communicable and non-communicable diseases
- Practical applications with software (e.g. Treeage, Data4)

Readings

Overview and principles of economic evaluation

Core Readings

Chapter 2: Drummond M.F, Sculpher, M.J., Torrance, G.W, O'Brien B.J. and Stoddart, G.L. (2015). *Methods for the Economic Evaluation of Health Care Programmes*. Fourth Edition, Oxford University Press ISBN: 9780199665884

Chapter 54: Economic Evaluation and Decision-makers, Michael Drummond: In Andrew Jones (ed), *The Elgar Companion to Health Economics*.

Further Readings



Peacock, S. and Mitton, C. (2013). Priority setting methods in health services, in A. Jones (ed.), *The Elgar companion to health economics*, pp. 576–85. Cheltenham: Edward Elgar.

Mandy Maredza, Lumbwe Chola, Karen Hofman. **Economic Evaluations of Interventions to Reduce Neonatal Morbidity and Mortality: A Review of the Evidence in Lmics and Its Implications for South Africa**. *Cost Eff Resour Alloc.* 2016; 14: 2. Published online 2016 January 26. doi: 10.1186/s12962-015-0049-5.

Costing

Core Readings

Chapter 7: Drummond M.F, Sculpher, M.J., Torrance, G.W, O'Brien B.J. and Stoddart, G.L. (2015). *Methods for the Economic Evaluation of Health Care Programmes*. Fourth Edition, Oxford University Press ISBN: 9780199665884

Chapter 43: Estimating Costs for Economic Evaluation, Maria Raikou and Alistair McGuire: In Andrew Jones (ed), *The Elgar Companion to Health Economics*.

Further readings

Luce, B.R., Manning, J.E. Siegel J.E. and Lipscomb, J. Estimating costs in cost-effectiveness analysis. In Gold, M.R., et.al. (eds.), *Cost-effectiveness in health and medicine*, Oxford University Press 1996.

Miners A. Estimating costs for cost-effectiveness analysis. *Pharmacoeconomics* 2008; 26: 769-79.

Raikou M. and McGuire A. Estimating costs for economic evaluation. Chapter 40. In Jones A (eds). *Companion to Health Economics*. Edward Elgar, 2006.

Sculpher, M. The role and estimation of productivity costs in economic evaluation. In Drummond MF. and McGuire A. (eds), *Economic evaluation in health care: merging theory and practice*, Oxford University Press 2001.

Cost Effectiveness Analysis

Core readings

Chapter 4: Drummond M.F, Sculpher, M.J., Torrance, G.W, O'Brien B.J. and Stoddart, G.L. (2015). *Methods for the Economic Evaluation of Health Care Programmes*. Fourth Edition, Oxford University Press ISBN: 9780199665884

Garber, A.M. and Phelps C.E. Economic foundations of cost-effectiveness analysis. *Journal of Health Economics*. 1997; 16: 1-31.
doi:[10.1016/S0167-6296\(96\)00506-1](https://doi.org/10.1016/S0167-6296(96)00506-1)



Birch, S. and Gafni, A. (2013). Decision rules in economic evaluation revisited, in A. Jones (ed.), *The Elgar companion to health economics*, pp. 528–38. Cheltenham: Edward Elgar.

Further readings

Cost and Cost-Effectiveness Analysis of a Bundled Intervention to Enhance Outcomes after Stroke in Nigeria: Rationale and Design. Olanrewaju Olaniyan, Mayowa O. Owolabi, Rufus O. Akinyemi, Babatunde L. Salako, Samantha Hurst, Oyedunni Arulogun, Mulugeta Gebregziabher, Ezinne Uvere, Bruce Ovbiagelee. *NeurologicalSci*. Author manuscript; available in PMC 2015 December 2. Published in final edited form as: *eNeurologicalSci*. 2015 June; 1(2): 38–45. doi: 10.1016/j.ensci.2015.09.003

Cost Utility Analysis

Core readings

Chapter 5: Drummond M.F, Sculpher, M.J., Torrance, G.W, O'Brien B.J. and Stoddart, G.L. (2015). *Methods for the Economic Evaluation of Health Care Programmes*. Fourth Edition, Oxford University Press ISBN: 9780199665884

Chapter 36: David Feeny, The Multi-attribute Utility Approach to Assessing Health-related Quality of Life. In A. Jones (eds). *The Elgar Companion to Health Economics*. Edward Elgar, 2006.

Bleichrodt H and Pinto JL. Conceptual foundations for health utility measurement. Chapter 33. In Jones A (eds). *The Elgar Companion to Health Economics*. Edward Elgar, 2006.

Further readings

Culyer, A.J. and Wagstaff, A. QALY versus HYE, *Journal of Health Economics*. 1993: 12,311-323. [http://dx.doi.org/10.1016/0167-6296\(93\)90014-6](http://dx.doi.org/10.1016/0167-6296(93)90014-6)

Gafni, A., Birch, S. and Mehrez, A. Economics, health and health economics, HYE versus QALYs, *Journal of Health Economics*. 1993: 12, 325-339.

Loomes, G. and McKenzie, L. The use of QALYs in health care decision making, *Social Science and Medicine*. 1989: 28, 299-308. doi:10.1016/0277-9536(89)90030-0

Airoldi, M. and Morton, A. (2009). Adjusting life for quality or disability: stylistic difference or substantial dispute? *Health Economics*, 18, 1237–47.

Brazier, J., Roberts, J., and Deverill, M. (2002). The estimation of a preference-based measure of health from the SF-36. *Journal of Health Economics*, 21, 271–92.



Dolan, P., Gudex, C., Kind, P., and Williams, A. (1996). The time trade-off method: results from a general population study. *Health Economics*, 5, 141–54.

Cost Benefit Analysis

Core Readings

Chapter 6 (and Section 2.4) in Drummond MF., Sculpher MJ., Claxton K., Stoddart GL. And Torrance GW (2015), *Methods for the economic evaluation of health care programmes* (4th edition), Oxford Medical Publications.

Cam Donaldson, Helen Mason and Phil Shackley, *Contingent Valuation in Health Care*: Chapter 33. In Jones A (eds). *The Elgar Companion to Health Economics*. Edward Elgar, 2006.

Further Readings

McIntosh, E., Clarke, P.M., Frew, E., and Louviere, J.J. (2010). *Applied methods of cost-benefit analysis in health care*. Oxford: Oxford University Press.

The Impact of Company-Level ART Provision to a Mining Workforce in South Africa: A Cost–Benefit Analysis. Gesine Meyer-Rath, Jan Pienaar, Brian Brink, Andrew van Zyl, Debbie Muirhead, Alison Grant, Gavin Churchyard, Charlotte Watts, Peter Vickerman. *PLoS Med.* 2015 September; 12(9): e1001869. Published online 2015 September 1. doi: 10.1371/journal.pmed.1001869

Chapter 6: Pauly, M.V. Valuing health care benefits in money terms, in: Sloan, F.A. (ed.), *Valuing health care*, Cambridge University Press 1995.

Gravelle H, Smith D. Discounting for health effects in cost-benefit and cost-effectiveness analysis. *Health Economics* 2001;10:587-599. <http://dx.doi.org/10.1002/hec.618>

O'Brien B. and Gafni A. When do the 'dollars' make sense? Toward a conceptual framework for contingent valuation studies in health care. *Medical Decision Making*. 1996; 16, 288-299.

Randomized Controlled Trials (RCTs)

Core readings

Chapter 8 in Drummond MF., Sculpher MJ., Claxton K., Stoddart GL. and Torrance GW (2015), *Methods for the economic evaluation of health care programmes* (4th edition), Oxford Medical Publications

Collins R, Peto R, Gray R, Parish S. Large scale randomised evidence: trials and overviews in Maynard A. and Chalmers, I. (eds.) *Non-Random Reflections on Health Services Research*, BMJ Publishing Group, 1997, pp. 197-230.



7) Health and Development (12 Hours)

- Measures of health (macro) and measures of development (Human development index);
- Disease Profiles of Rich and Poor Countries
- Health, Health Expenditure and Growth
- Linkage between poverty, education and health
- Social, Political, Religious and Regional Dimensions of Health

Readings

Measures of health (macro) and measures of development (Human development index)

Disease Profiles of Rich and Poor Countries

Health, Health Expenditure and Growth

Core Readings

Chapter 1: Christopher J. Ruhm, Understanding the Relationship between Macroeconomic Conditions and Health, in A. Jones (ed.), *The Elgar companion to health economics*, 2nd edition, pp. 425–34. Cheltenham: Edward Elgar.

Chapter 5: David Bishai, Divya Nair and Taghreed Adam, Economics of Public Health Interventions for Children in Developing Countries, in A. Jones (ed.), *The Elgar companion to health economics*, 2nd edition, pp. 425–34. Cheltenham: Edward Elgar.

Further readings

Richard M. Scheffler (2004) Health Expenditure and Economic Growth; An International Perspective; occasional paper vol. 1:10

David E. Bloom, David Canning, Jaypee Sevilla. The Effect of Health on Economic Growth: A Production Function Approach Author links open overlay panel, *World Development* 2004, 32 (1): 1-13.

Kalemli-Ozcan, Sebnem, "Does Mortality Decline Promote Economic Growth?" *Journal of Economic Growth*, December 2002, 7 (4), 411—439.

Linkage between poverty, education and health

Core Readings

Chapter 2: Oxford Textbook of Global Public Health (6 ed.) Edited by Roger Detels, Martin Gulliford, Quarraisha Abdool Karim, and Chorh Chuan Tan, 2015. Oxford University Press, ISBN-13: 9780199661756, DOI: 10.1093/med/9780199661756.001.0001

Further readings



Kalemli-Ozcan, Sebnem, Harl E. Ryder, and David N. Weil, "Mortality Decline, Human Capital Investment, and Economic Growth," *Journal of Development Economics*, June 2000, 62 (1), 1-23.

Bakare A. S and Olubokun Sanmi (2011) Health care Expenditure and Economic Growth in Nigeria An Emperical study. *Journal of Emerging Trends in Economics and Management Sciences*. Vol 2. (2) 83-87.

Wagstaff A, Poverty and health sector inequalities. *Bull World Health Organ*. 2002; 80: 97-105.

Social, Political, Religious and Regional Dimensions of Health

Core readings

Solar O, Irwin A. A conceptual framework for action on the social determinants of health. Social Determinants of Health Discussion Paper 2 (Policy and Practice), WHO, Geneva

Commission on Social Determinants of Health (2008). *Closing the Gap in a Generation: Health Equity Through Action on the Social Determinants of Health (Final Report)*. Geneva: World Health Organization.

Further readings

Baum, F. (2008). The commission on the social determinants of health: reinventing health promotion for the twenty-first century? *Critical Public Health*, 18(4), 457–66.

Springer, K.W., Hankivsky, O., and Bates, L.M. (2012). Introduction to special issue on gender and health: relational, intersectional, and biosocial approaches to gender and health. *Social Science & Medicine*, 74(11), 1661–6.

Cattel V. Poor people, poor places, and poor health: The mediating role of social networks and social capital. *Social Forms*. 2001;70:1077–1100.



8) Health Systems and Financing (17 Hours)

- Objectives of Health Systems
- Organization and Structure of Health Systems
- Sources of Health Financing (e.g. tax revenue, user fees, health insurance, development partners, etc)
- National Health Accounts
- Comparative Analysis of Health Systems and Financing in Africa
- Performance-based financing
- Sustainable financing

Readings

Organization and Structure of Health Systems, Objectives of the health system and functions of the health system

Core Readings

Witter, S., Ensor, T., Jowett, M. and Thompson, R. (2015). *Health Economics for Developing Countries: A Practical Guide*. KIT Publishers, 2015. ISBN-13: 978-9460221316 ISBN-10: 9460221319

Chapter 10: William Jack, *Principles of Health Economics for Developing Countries*, 1999.

Kutzin J (2013). Health financing for universal coverage and health system performance: concepts and implications for policy. *Bulletin of the World Health Organization*, 91:602-611.

Sources of Health Financing (e.g. tax revenue, user fees, health insurance, development partners, etc.)

Key Readings

Diane McIntyre and Joseph Kutzin. Health financing country diagnostic: a foundation for national strategy development. *Health Financing Guidance No. 1*. Chapters 2-5

Chapter 4, 5: Witter, S., Ensor, T., Jowett, M. and Thompson, R. (2015). *Health Economics for Developing Countries: A Practical Guide*. KIT Publishers, 2015. ISBN-13: 978-9460221316 ISBN-10: 9460221319.

Jeremiah Hurley (2001). Ethics, economics, and public financing of health care, *Journal of Medical Ethics*, 27:234–239.

Other Readings

Kutzin J (2013). Health financing for universal coverage and health system performance: concepts and implications for policy. *Bull World Health Organization*, 91:602-611.



Wagstaff A. (2010) Social Health Insurance Reexamined, *Health Economics*, 2010; 19(5):503-17. DOI: 10.1002/hec.1492

National Health Accounts

Core Readings

Daniel Waldo National Health Accounts 92018). A Framework For Understanding Health Care Financing, *Health Aff (Millwood)*, Mar; 37(3):498-503. doi: 10.1377/hlthaff.2017.1629.

Further readings

Kutzin J, Sparkes S. Health systems strengthening, universal health coverage, health security and resilience. *Bull World Health Organ.* 2016; 94:2. doi:10.2471/BLT.15.165050.

Mbau, R., Kabia, E., Honda, A. *et al.* Examining purchasing reforms towards universal health coverage by the National Hospital Insurance Fund in Kenya. *Int J Equity Health* 19, 19 (2020). <https://doi.org/10.1186/s12939-019-1116-x>

Comparative Analysis of Health Systems and Financing in Africa

Core Readings

Witter, S., Ensor, T., Jowett, M. and Thompson, R. (20015). *Health Economics for Developing Countries: A Practical Guide*. KIT Publishers, 2015. ISBN-13: 978-9460221316 ISBN-10: 9460221319, Chapter 12

Witter S, Fretheim A, Kessy FL, Lindahl AK. Paying for performance to improve the delivery of health interventions in low- and middle-income countries. *Cochrane Database Syst Rev.* 2012 02 15;2013(2):CD007899. PMID: 22336833

Dieleman JL, Haakenstad A, Micah A, et al. (2018) Spending on health and HIV/AIDS: domestic health spending and development assistance in 188 countries, 1995–2015. *The Lancet*, 391:1799–829. doi:10.1016/S0140-6736 (18)30698-6

Further readings

Performance-based financing

Core readings

Witter S, Fretheim A, Kessy FL, Lindahl AK. Paying for performance to improve the delivery of health interventions in low- and middle-income countries. *Cochrane Database Syst Rev.* 2012 02 15;2013(2):CD007899. PMID: 22336833

Mayaka Ma-Nitu S, Tembey L, Bigirimana E, Dossouvi CY, Basenya O, Mago E, et al. Towards constructive rethinking of PBF: perspectives of implementers in sub-Saharan Africa. *BMJ Glob Health.* 2018; 3(5): e001036. P doi: <http://dx.doi.org/10.1136/bmjgh->



2018-001036 PMID: 30294464

Further readings

Gordon C Shen, Ha Thi Hong Nguyen, Ashis Das, Nkenda Sachingongu, Collins Chansa, Jumana Qamruddin, Jed Friedman, Incentives to Change: Effects of Performance-Based Financing on Health Workers in Zambia, *Human Resources for Health*, 2017 Feb 28;15(1):20. doi: 10.1186/s12960-017-0179-2.

Gopalan SS, Mutasa R, Friedmand F, Das A. Health sector demand-side financial incentives in low-and middle-income countries: a systematic review on demand-and supply-side effects. *Soc Sci Med* 2014;100:72-83.

Basinga P, Gertler PJ, Binagwaho A, Soucat AL, Sturdy J, Vermeersch CM. Effect on maternal and child health services in Rwanda of payment to primary health-care providers for performance: an impact evaluation. *Lancet* 2011;377:1421–8. PMID:21515164

Sustainable financing

Core readings

Chapters 1, 6 and 7: Diane McIntyre and Joseph Kutzin. Health financing country diagnostic: a foundation for national strategy development. Health Financing Guidance No. 1.

Further readings

Kutzin J. Health financing for universal coverage and health system performance: concepts and implications for policy. *Bull World Health Organ*. 2013;91: 602-611.

Meheus F, McIntyre D. Fiscal space for domestic funding of health and other social services, *Health Econ Policy Law*. 2017; 12(2):159-177.

Vincent Okungu, Jane Chuma & Di McIntyre (2017).The cost of free health care for all Kenyans: assessing the financial sustainability of contributory and non-contributory financing mechanisms, *International Journal for Equity in Health* volume 16: 39.

Cashin C. Fiscal space and sustainability trade-offs. In: WHO Advanced Course on Health Financing for Universal Health Coverage. Barcelona, Spain. Geneva: World Health Organization; 2015.



9) Healthcare Reforms and Policy I (7 Hours)

- Explain the meaning and components of health sector reforms
- The policy process
- The Policy Process' Conceptual Framework
- The Policy Stages and Related Tasks in the Technically Led Domain of the Policy Process
- Health Sector Reforms and their components
- The Conceptual Framework of the Interaction between Health Sector Reforms and Country Health System
- Health Sector Governance
- The Health Governance Framework
- The Health-In-All-Policies Approach to Social Policymaking
- The Social Determinants of Health
- Health Financing Reform
- Intermediate Objectives of Universal Health Coverage
- Meaning and dimensions of Efficiency

Readings

Brinkerhoff, D. W. and T. J. Bossert (2014) Health governance: principal–agent linkages and health system strengthening, *Health Policy and Planning*, Vol. 29, pp.685–693.

The World Bank (2011) Governance in the Health Sector: A Strategy for Measuring Determinants and Performance, Policy Research Working Paper No. WPS5655. Available at: <http://documents.worldbank.org/curated/en/812751468158068363/pdf/WPS5655.pdf>

Yuan, B., W. Jian, L. He et al. (2017) The role of health system governance in strengthening the rural health insurance system in China, *International Journal for Equity in Health*, Vol. 16, No. 44, available at: <https://equityhealthj.biomedcentral.com/track/pdf/10.1186/s12939-017-0542-x>

Nedel, F. B. and J. L. Bastos (2020) Whither social determinants of health? *Rev Saude Publica*. 2020;54:15, available at: <https://www.scielo.br/pdf/rsp/v54/1518-8787-rsp-54-15.pdf>

Artiga, S. and E. Hinton (2018) Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity, available at: <http://files.kff.org/attachment/issue-brief-beyond-health-care>

Social Determinants of Health, available at: <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>



Islam, M. M. (2019) Social Determinants of Health and Related Inequalities: Confusion and Implications, *Frontiers in Public Health*, Vol. 7, Article 11, available at: <https://www.frontiersin.org/articles/10.3389/fpubh.2019.00011/full>

Donkin, A., P. Goldblatt, J. Allen et al. (2017) Global action on the social determinants of health, *BMJ Glob Health* 2017;3, available at: https://gh.bmj.com/content/bmigh/3/Suppl_1/e000603.full.pdf

World Health Organization (2019) *Healthy, prosperous lives for all: the European Health Equity Status Report (2019)*, available at: <https://www.euro.who.int/en/publications/abstracts/health-equity-status-report-2019>

World Health Organization (2019) *Financing for Universal Health Coverage: Dos and Don'ts*, Health Financing Guidance Note No. 9, available at: <https://p4h.world/system/files/2019-09/WHO19-01%20health%20financing%20complete%20low%20res%200922.pdf>

Witter, S., V. Govender, T. K. S. Ravindran et al. (2017) Minding the gaps: health financing, universal health coverage and gender, *Health Policy and Planning*, 32, 2017, v4–v12.

Sparkes, S. P., J. B. Bump, E. A. Özçelik et al. (2019) Political Economy Analysis for Health Financing Reform, *Health Systems & Reform*, Vol. 5, No. 3, pp. 183–194.

World Health Organization (2019) *Financing for Universal Health Coverage: Dos and Don'ts*, Health Financing Guidance Note No. 9, available at: <https://p4h.world/system/files/2019-09/WHO19-01%20health%20financing%20complete%20low%20res%200922.pdf>

World Health Organization (2017) Developing a National Health Financing Strategy: A Reference Guide, *Health Financing Guidance No. 3*, available at: <https://apps.who.int/iris/rest/bitstreams/1081384/retrieve>

Love-Koh, J., S. Griffin, E. Kataika et al. (2020) Methods to promote equity in health resource allocation in low- and middle-income countries: an overview, *Globalization and Health* (2020) 16:6. Available at: <https://globalizationandhealth.biomedcentral.com/track/pdf/10.1186/s12992-019-0537-z>

Culyer, A. J. (2001) Equity - some theory and its policy implications, *Journal of Medical Ethics*, Vol.27, pp.275–283.



Zhang, T., Y. Xu, J. Ren et al. (2014) Inequality in the distribution of health resources and health services in China: hospitals versus primary care institutions, *International Journal for Equity in Health* (2017) 16:42. Available at: <https://equityhealthj.biomedcentral.com/track/pdf/10.1186/s12939-017-0543-9>

Sen, A. (2002) Why health equity? *Health Economics*, Vol.11, pp. 659–666. Available at: <https://onlinelibrary.wiley.com/doi/pdf/10.1002/hec.762>

Ramirez, L. K. B., E. A. Baker and M. Metzler (2008) Promoting Health Equity A Resource to Help Communities Address Social Determinants of Health, available at: https://www.cdc.gov/nccdphp/dch/programs/healthycommunitiesprogram/tools/pdf/SDO_H-workbook.pdf

Ransom, H. and J. M. Olsson (2017) Allocation of Health Care Resources: Principles for Decision-making, *Pediatrics in Review*, Vol. 38, No.7, pp.320-329. Available at: <https://pedsinreview.aappublications.org/content/pedsinreview/38/7/320.full.pdf>

World Health Organization (2010) World Health Report: Health systems financing: the path to universal coverage, available at: <https://www.who.int/whr/2010/en/>

World Health Organization (2016) Health System Efficiency: How to make measurement matter for policy and management, available at: https://www.euro.who.int/_data/assets/pdf_file/0004/324283/Health-System-Efficiency-How-make-measurement-matter-policy-management.pdf?ua=1

10) Health Policy and Reforms II (6 Hours)

- Workforce reforms from the viewpoint of your country
- Key questions and issues pertaining to human resources in health care
- The impact of human resources on health sector reform
- Meaning of health information systems from both a global and national perspectives
- Basic functions of a health information management system
- Linking health information technology to public health
- Medicine and technologies
- Meaning of medicalization of healthcare and its various forms



Readings

World Health Organization (2000) *The World Health Report 2000: Health Systems – Improving Performance*. Available at: https://www.who.int/whr/2000/en/whr00_en.pdf?ua=1

Gebbie, K., J. Merrill and H. H. Tilson (2002) *The Public Health Workforce, Health Affairs, Vol. 21, No. 6, pp.57-67*. Available at: <https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.21.6.57>

Kabene, S. M., C. Orchard, J. M. Howard et al. (2006) *The importance of human resources management in health care: a global context, Human Resources for Health 2006, 4:20* doi:10.1186/1478-4491-4-20. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1552082/pdf/1478-4491-4-20.pdf>

Fritzen, S. A. (2007) *Strategic management of the health workforce in developing countries: what have we learned? Human Resources for Health 2007, 5:4* doi:10.1186/1478-4491-5-4. Available at: <https://human-resources-health.biomedcentral.com/track/pdf/10.1186/1478-4491-5-4>

Sittig et al. (2020) *Current challenges in health information technology–related patient safety, Health Informatics Journal 2020, Vol. 26, No.1, pp.181–189*. Available at: <https://journals.sagepub.com/doi/pdf/10.1177/1460458218814893>

Health IT: Advancing America's Health Care, available at: <https://www.healthit.gov/sites/default/files/pdf/health-information-technology-fact-sheet.pdf>

Mutale, W., N. Chintu, C. Amoroso et al. (2013) *Improving health information systems for decision making across five sub-Saharan African countries: Implementation strategies from the African Health Initiative, BMC Health Services Research 2013, 13(Suppl 2):S9*. Available at: <https://bmchealthservres.biomedcentral.com/track/pdf/10.1186/1472-6963-13-S2-S9>

Chapter 1 Foundation concepts of Health Management Information Systems. Available at: https://samples.ibpub.com/9780763756918/56918_CH01_Tan.pdf

Clark, J. (2014) *Medicalization of global health 1: has the global health agenda become too medicalized? Global Health Action 2014*. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4028930/pdf/GHA-7-23998.pdf>

Contino, G. (2016) *The Medicalization of Health and Shared Responsibility, the new bioethics, Vol. 22 No. 1, 2016, 45–55*. Available at: <https://www.tandfonline.com/doi/pdf/10.1080/20502877.2016.1151253>