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

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


**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 OvbiageleeNeurologicalSci. 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


**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
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:

2. Health Economics, Wiley Science
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
10. International Journal of Health Planning and Management
11. International Journal of Health Services
13. www.nber.org
14. www.healtheconomics.org
15. www.who.int
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


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


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


Chapter 2 Epidemiology, available at: [https://samples.jblearning.com/9781284166606/9781284188479_CH02_Secured.pdf](https://samples.jblearning.com/9781284166606/9781284188479_CH02_Secured.pdf)

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

Chapter 1 Foundations of Epidemiology, available at: [https://samples.jbpub.com/9780763766221/66221.CH01.5398.pdf](https://samples.jbpub.com/9780763766221/66221.CH01.5398.pdf)


Chapter 1 Foundations of Epidemiology, available at: [https://samples.jbpub.com/9780763766221/66221.CH01.5398.pdf](https://samples.jbpub.com/9780763766221/66221.CH01.5398.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


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


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


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


**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**


**Further Readings**


Costing

Core Readings


Further readings


Cost Effectiveness Analysis

Core readings


Further readings


Cost Utility Analysis

Core readings


Further readings


**Cost Benefit Analysis**

**Core Readings**


**Further Readings**


**Randomized Controlled Trials (RCTs)**

**Core readings**


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**


**Further readings**


**Linkage between poverty, education and health**

**Core Readings**


**Further readings**


**Social, Political, Religious and Regional Dimensions of Health**

**Core readings**


**Further readings**


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


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

Key Readings


Other Readings


National Health Accounts
Core Readings

Further readings


Comparative Analysis of Health Systems and Financing in Africa
Core Readings


Further readings
Performance-based financing
Core readings

Further readings


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

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


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


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


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