HE3004 – HEALTH ECONOMICS

Course Description and Scope

Health care is expanding rapidly, both in the private and the public sectors of the economy. As prevention and cure absorbs a larger and larger share of the national income, it becomes increasingly important to examine the implications for efficiency and equity of the use it makes of scarce resources. This course considers the allocative and distributive dimensions of the resources committed to the care and improvement of health status.

Lecture Schedule

<table>
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<tr>
<th>Week No.</th>
<th>Topics</th>
<th>Readings</th>
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| 1        | 1. Introduction: Singapore  
1.1. Health  
1.2. Payment for Health Care | See below, Seminar 1 |
| 2        | 2. Singapore: Old Age and Health Care  
2.1. The Demographic Transition  
2.2. Finance for Old Age | See below, Seminar 2 |
| 3        | 3. Medical Travel  
3.1. The Statistics  
3.2. Causes and Consequences | See below, Seminar 3 |
| 4        | 4. Health Care and Health Status  
4.1. The Inputs  
4.2. The Outcomes  
4.3. Investment in Fixed Capital  
4.4. Investment in Human Capital | FGS, Ch. 5, 6, 7, 14  
DR, Ch. 2, 5 |
| 5        | 5. Needs and Wants  
5.1. Patients  
5.2. Doctors  
5.3. Externalities  
5.4. First Seminar: Payment for Health | FGS, Ch. 9,10, 15  
DR, Ch. 3 |
| 6        | 6. Insurance  
6.1. Risk and Uncertainty  
6.2. Adverse Selection  
6.3. Public Policy  
6.4. Second Seminar: Old Age | FGS, Ch.8, 11, 12  
DR, Ch. 4 |
| 7    | 7. Project Appraisal  | FGS, Ch. 4  |
|      | 7.1. Efficacy        | DR, Ch. 6   |
|      | 7.2. Practice Variation | MNS, Ch.6-12 |
|      | 7.3. Effectiveness    |            |
|      | 7.4. Third Seminar: Medical Travel |      |
| 8    | Recess                |            |
| 9    | 8. Economic Evaluation: Benefit and Utility | FGS, Ch. 4  |
|      | 8.1. Cost-Benefit Analysis | DR, Ch. 6, 7 |
|      | 8.2. Cost-Utility Analysis | MNS, Ch.6-12 |
|      | 8.2. Fourth Seminar: Inputs & Outcomes |      |
| 10   | 9. Equity             | FGS, Ch. 18, 19 |
|      | 9.1. Justice and Health | DR, Ch. 8   |
|      | 9.2. Fifth Seminar: Demand | |
| 11   | 10. Economic Policy and Equity | FGS, Ch. 18, 19 |
|      | 10.1. Social Policy   | DR, Ch. 9   |
|      | 10.2. Sixth Seminar: Insurance |      |
| 12   | 11. Summing Up        | FGS, Ch. 1  |
|      | 11.1. Is Health Care Different? | DR, Ch. 1   |
|      | 11.2. Seventh Seminar: Assessment |      |
| 13   | 12. Concluding Seminars |       |
|      | 12.1. Eighth Seminar: Equity |      |
|      | 12.2. Ninth Seminar: Systems |      |

**Reading**

There is no single textbook for this course. Students should read the relevant chapters in the following books:

**Basic Text**


**Supplementary Texts**


Reprinted Articles

Reference Books

Journals
*Journal of Health Economics*
*Social Science and Medicine*
*Health Policy*

All the above are available through e-journals

Further reading will be recommended in the lectures.

Method of Instruction
This is a 4 AU option. The course is made up of 36 contact hours. The balance will be 22½ hours of lectures and 9 1½ hour seminars.

Course Assessment

Written Assignment/Presentation/Course Participation: 30%
Final Examination: 70%
100%

Written Assessment
Each student will choose a seminar group. Within the group students will select the question on which they wish to specialise. Each sub-group will give a presentation on one of the three or four topics assigned for discussion each week.

Each group should write out its presentation in essay form. Papers should be approximately 2500-4000 words in length. Students are expected to do additional reading in order to amplify
the course-texts assigned. Each member should do the correct share of the work. Members should contact the teacher if there are problems in the allocation of work.

Projects should be handed in **by email** to the teacher no later than **one week after** the presentation.

**Presentations**
Presentations will take approximately 90 minutes. The presenters should post their slides on the Discussion Board on the course website no later than **one day before** the seminar. All students attending this course should prepare the whole of the chapter(s) assigned each week. The seminar presenters will ensure that all the problems in the textbook have been clarified.

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<tr>
<th>Lecturer</th>
<th>Office Room No.</th>
<th>DID</th>
<th>E-mail</th>
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<tbody>
<tr>
<td>Professor David Reisman</td>
<td>HSS 04-70</td>
<td>6790-5659</td>
<td><a href="mailto:aardavid@ntu.edu.sg">aardavid@ntu.edu.sg</a></td>
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**SEMINAR TOPICS**

**Seminar 1, Week 5: Singapore – Payment for Health**

1. Describe the principal indicators of mortality and morbidity in Singapore. What are the principal strengths and weaknesses in the health status of the representative Singaporean? To which health outcomes do you believe the Government ought to assign the highest priority?
2. What are the ‘three Ms’? What contribution does each make to ensuring that Singaporeans can pay for medical care? What reforms can usefully be made in each?
3. Explain the reasons for the comparatively low level of State involvement in the payment for health. What are the costs and benefits of relying more heavily on public finance in Singapore?

Principal references:
Ministry of Health (Singapore), *www.moh.gov.sg*
Seminar 2, Week 6: Singapore – The Demographic Transition

1. In what way are demographic changes likely to have an impact on health care in Singapore? What changes in the Singapore system of health care do you anticipate in response to the greater proportion of older patients?
2. Show the link between the payment for health and the later age of retirement. What proposals would you make to increase the participation rates of older workers?
3. How could an increase in voluntary saving or the monetisation of housing be used to pay for expensive medical attention? How will changes in family structure and expectations affect the payment for health in Singapore?

Principal references:
Lee Hock Guan, ed. (2008), Ageing in Southeast and East Asia, Singapore: Institute of South East Asian Studies
Ministry of Manpower (Singapore), www.mom.gov.sg

Seminar 3, Week 7: Medical Travel

1. What statistics are available on patients crossing borders for medical care? What statistics would an economist like? How could these statistics be collected? Do the IMF, WTO, WHO and other international organisations collect statistics on international trade in services? Does this data explicitly allow for trade in healthcare?
2. Why do patients go abroad for care? Why do countries welcome in foreign patients? What role, if any, would you expect Singapore to play as an (a) importer and (b) an exporter of healthcare services?
3. Is international trade in healthcare in the interests of the less-developed countries? What practical advice would you give to the governments of less-developed countries who are planning to expand their trade in health-related services?

Principal references:

Seminar 4, Week 9: Inputs and Outcomes

1. What is ‘good health’? What are the medical care inputs that can be expected to bring about ‘good health’? Can medical care inputs bring about ‘bad health’ as well?
2. What is the ‘production function of good health’? For what reasons do some thinkers say the curve is increasingly flat? What are the implications of this result for (a) less developed (b) more developed countries?

3. What importance would you assign to education and lifestyle as an investment in health capital? What is the threat to good health from cigarettes and alcohol? What policy tools can governments employ to encourage healthy living?

4. In what ways is health status a consumption good as well as capital good? Refer in your answer to the work of Michael Grossman.

Principal references: FGS, Ch. 5, 24
  DR, Ch. 2
  AC I, Ch. 13; AC II, Ch. 20, 21

Seminar 5, Week 10: Demand

1. ‘The doctor knows best.’ Discuss the respective contributions of the consumer, the supplier and the public to the specification of the demand for care. Is it useful to distinguish between wants and needs?

2. Use indifference curves to illustrate the consumer’s position of equilibrium in respect of changes in price and in income. Assess the value of this approach to the economics of health.

3. Explain the use of the elasticity of demand in the analysis of health. What implications do the results of empirical studies have for the optimal rates of coinsurance and co-payment? What is the relevance of the income elasticity of demand?

4. Supplier-induced demand is said to be common in the market for health. In what circumstances can supply create its own demand? What are the principal limitations on its ability to do so?

Principal references: FGS, Ch. 7, 9, 10, 15,
  DR, Ch. 3
  AC II, Ch. 23, 24

Seminar 6, Week 11: Insurance

1. What is the importance of asymmetric information to the specification of the demand for health? Use the Akerlof model to explain how the ‘lemons’ principle relates to adverse selection in the market for insurance.

2. Show the links between risk, uncertainty and imperfect information. In what way are they a case of moral hazard and of adverse selection?

3. Explain, with diagrams, the impact of coinsurance and deductibles. What are the implications of cost-sharing for the identification of the optimal quantity of insurance? Does health insurance lead to an inefficient allocation of scarce resources?

4. Health insurance in the United States is often said to waste resources through excessive loading and the provision of insurance as a fringe benefit. It is also said to neglect the retired and the uninsured. Discuss each of these possible shortcomings. In what way, if at all, would greater competition, mandated cover and the removal of the tax subsidy help to resolve these problems?

Principal references: FGS, Ch. 8, 11, 12
  DR, Ch. 4
  AC III, Ch. 42, 46, 53; AC IV, Ch. 70
Seminar 7, Week 12: Assessment and Appraisal
1. Explain how clinicians use randomized control trials and studies of practice variation to establish the medically optimal course of treatment. Why do you think there is so much disagreement among doctors as to the appropriate kind of procedure? What use can be made of trials in a small and multi-ethnic country like Singapore?
2. Show how economists use cost-benefit analysis to calculate the present value and the internal rate of return of a medical procedure. What are the advantages and disadvantages of the techniques they employ? Refer in your answer to at least one empirical study not covered in the lectures.
3. What is cost-effectiveness analysis? What is the unique contribution of economics to an exercise often believed to belong to statistics?
4. How can it be adapted to allow for quality-adjusted life years? In what ways can subjective data on patients’ utility be collected and aggregated? Refer in your answer to at least one empirical study not covered in the lectures.
Principal references: FGS, Ch. 4
   DR, Ch. 6, 7
   AC IV, Ch.58, 59, 60, 65

Seminar 8, Week 13: Equity
1. What is fairness? In what way is it related to the concept of ‘basic needs”? Can equity be ensured without interfering with the Pareian efficiency of competitive markets?
2. Is equality the precondition for equity? Define the various meanings that are assigned to equality in health economics. Which, in your opinion, is the most useful?
3. What forms of social insurance have been tried in the United States and other countries? Are they able to correct the market failures in the insurance industry that were discussed in seminar 6? Are they required for efficiency or is the case entirely a normative one?
4. Explain the contribution to the debate on equity, efficiency and need of  (a) Daniels; (b) Rawls; (c) liberal philosophy and economics.
Principal references: FGS, Ch. 18, 21
   DR, Ch. 8, 9
   AC I, Ch. 19; IV, Ch. 74, 77, 78

Seminar 9, Week 13: Health Care Systems
1. Use economic analysis to assess the underlying principles of Britain’s National Health Service. Show how waiting lists fulfill the function of a price.
2. What is meant by ‘efficiency”? In what way is the British system less efficient than a private system? In what way is it more efficient?
3. The Canadian system is a mix of public and private elements. Why are fees and hospital costs lower in Canada than in the United States? Is the Canadian system likely to come under financial pressure and have to limit its spending on care?
4. Taiwan has adopted a system of national health insurance. Explain how it is financed and what services it supports. Is it an effective system? What would be the costs and benefits if Singapore were to convert the ‘3 Ms’ into the Taiwanese system?

Principal references: FGS, Ch. 22

D. Reisman