

Health Economics

Dr Pratap C Mohanty

Department of Humanities and Social Sciences,

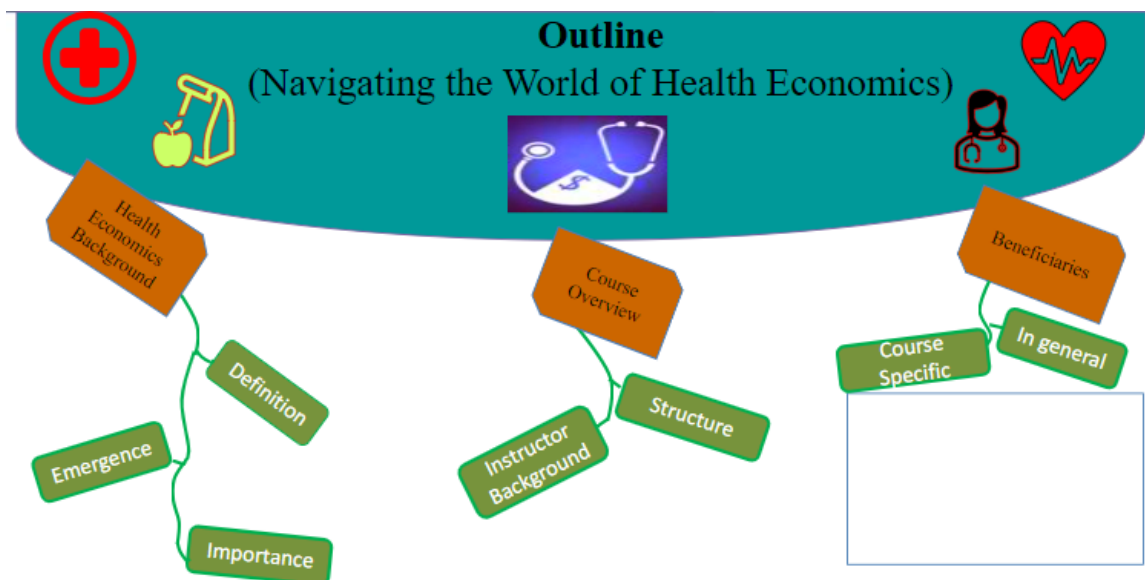
Indian Institute of Technology Roorkee

Week – 01

Lecture 01- Health Economics: Overview, Structure, and Beneficiaries

Welcome friends to our NPTEL MOOC module on Health Economics. I must introduce to this module by referring to the most wanted program of the Ministry of Education, which facilitates online education at par with the international standard. And another interesting aspect is that this also guarantees the holistic structure of different discourses. This particular module is shortlisted after various rounds of discussions and expert opinions and based on the gaps in the online module in Indian context, even in the international level, the course has been developed and that is titled as Health Economics. And I will clarify how it is relevant, where the participants or the students can get the best out of it, how it will be useful for their research, their consultancy project and this can take their understanding to a next level for sure.

Without further delay, I think it is better to introduce you about its complete structure, its process etc. and the entire overview of the course. Hence, we are now presenting the outline- Navigating the World of Health Economics.



We start by explaining the definition, then we will talk about the emergency and its importance, and we will identify the structure of the course, the instructor who is teaching and the supporting staff who are facilitating this course and how it is made; also we will, in

the end, discuss the beneficiaries of this specific course.

So, let us explain health economics in a systematic way. As we know, economics is discussed when we are actually conflicting with resource allocation when we are supposed to manage the resources to the best end so that the long run is not compromised, where we emphasize the role of economic entities, the role of the market, the role of the governing bodies, role of the public policy institutions. Similarly, we are also in a way to re-emphasize the economic entities or the stakeholders to explain health and healthcare. There are clear differences between these two; we have even explained it in our module, and you will be very happy to go through each of them. It has mathematical modelling and real examples. Even it has numeric examples to solve. It gives you the background of solving problems for a decision making, and interestingly you can calculate it using the software and databases.

Let us explain economics again a bit. Economics is the science that studies human behaviour as a relationship between ends and scarce resources which have alternative uses. The standard reference for this is by Lionel Robbins 1932 paper, that deals with scarcity and then the needs to be emphasized.

Then, so far as the healthcare is concerned, this deals with the resources of the society that people use especially when they have ill events, to cure them or to care for them. In addition to curing and caring for people who have already become ill, healthcare includes some of those activities that seek to prevent them from becoming ill in the first place. Beyond that, healthcare also includes rehabilitation aspects (as mentioned in Olson 2017).

So, what is health then? Health is the discourse with a mix of economics and healthcare. Where economics and healthcare have proper definitions that are widely acceptable, health has been indeed problematic and controversial. Healthcare clarifications are made, but health is a broader term. We can think of a continuum of definitions ranging from very narrow to very broad.

So far as the very narrow definition is concerned, it's always concerned with the healthcare providers at the firsthand, usually referring to medico-technical definitions. Here, this means- "health is the degree of bodily functioning, observable to an external expert and measurable on medical instruments". Whereas in a broader context, we refer to the WHO World Health Organization definition. This explains- "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". This indeed covers a holistic picture and can be fit into different setups.

With such an all-encompassing definition, everything becomes healthcare as all commodities affect physical, mental as well as social well-being. Since resources are scarce and health is complex but essential for survival, the need is here for a proper understanding of how to allocate the resources, especially for the scarce resources that provide health benefits to most individuals.

Here comes the role of what we call health economics. This defines the application of economic theory, models, and empirical definitions to the analysis of decision-making by the people, healthcare providers and government with respect to health and healthcare. Hence, we are not just dealing with the healthcare providers; we are also dealing with their subscribers and public institutions. In all regards, we have to draw decisions based on the existing information related to both health and healthcare. We have also explained the difference between health and healthcare in their respective chapters.

Apart from strong backup from economic theory, health economics also comprises a body of theory developed specifically to understand the behaviour of patients, doctors, hospitals and analytical tools. Those are developed to facilitate resource allocation for decision making especially in healthcare.

Here, I am just giving a background of health economics as a subject and its evolution. We are identifying and mentioning the important footprints for the sake of this subject. Referring to the Bureau of Medical Economics (which was established in 1931). This institute initiated a discussion about insurance plans as an alternative form of compensation. Even in the works of 1945 of the US Army, which established the RAND project and which grew in consequent years to RAND cooperation using the rational choice framework. There are some rational choice frameworks and experiments to explain the economics of healthcare. We have also discussed these in later chapters, and you will surely find the examples and interpretations of the RAND project and their experiments.

Some early pioneers of health economics include the works of Milton Friedman, who received the Nobel Prize in 1976 and his few economic papers of 1935-45 are seen as the first pioneering works in the field of health economics. Also, we have cited the one authors who have mentioned this and we have also discussed about Moskin's work. Selma Moskin's two health economics work are famous. The first paper attempted to define health economics, and the second piece was probably the first paper establishing health as an investment. That is more important, and we have also discussed in our chapters.

And the works of Kenneth Arrow (another Nobel Prize recipient in 1972), who gave the single most famous work on health economics and its single most famous and cited contribution laying grounds for this particular discipline. You wouldn't believe the work of Michael Grossman is most important for this domain is because of his contribution to the field of health economics only because of identifying the attributes such as human capital in his works. He represented the work through the theory of human capital, which provides a standard method to assess indirect opportunity cost in health economics. Hence, Grossman's work is highly cited.

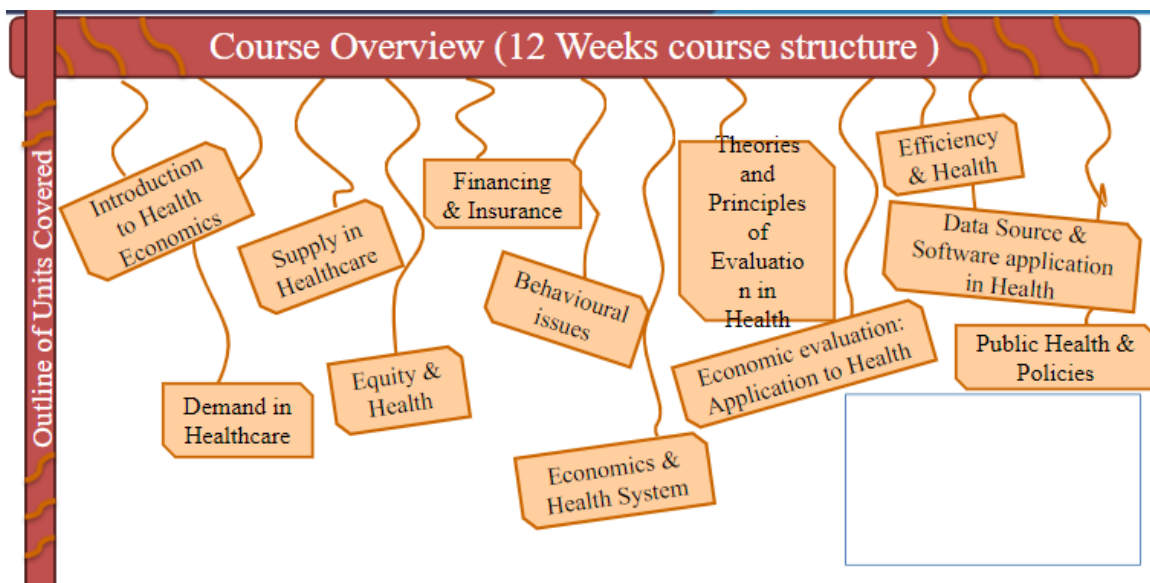
Important for this. So far as the importance of health economics is concerned, this is not just important for the individual but also for societal well-being. The availability of healthcare determines the quality of our lives and prospects for survival. You wouldn't believe these are well referred in our module in our respective weeks explained using a gamut of

examples in giving you dealings such as its quality indicators- how to measure quality of life indicators or indexes. We have referred some of the indicators. I will come to it soon.

The health sector and economic well-being are major sectors, and it covers the components of spending, investment, employment and amount of care provided. These are crucially linked to the overall well-being of the country and its fellow citizens. For India, improvements in healthcare growth and advances will be crucial as the government of India announces the Amrit-kaal in the recent budget 2022-23. Several steps are also taken as part of the ministry of Indian government, allocating certain budget in this segment including Ayushman Bharati Yojana as well. We will discuss these in detail in our end chapter, which is in the final week of lectures.

Decision about healthcare financing is largely influenced by economic environment and economic constraints. This concerns global, national, and even local issues and is increasingly seeking economic ideas and methods of analysis.

Hence, I am privileged to give you the holistic picture of our 12 weeks structure. And this is 12 weeks course which has a coverage of 60 plus lectures. Each lecture recording is around 30 minutes, sometimes we also exceeded to around 50 minutes, but we largely made it around 25 to 30 minutes. And this has the unit's explaining introduction of health economics, demand in healthcare, and supply in healthcare, then equity in health, financing and insurance, then behavioural aspects of healthcare- how it is shaping of the human need through their behavioural aspects and conflicts that arises out of the economic entities.



We have covered the aspects of the economics and the health systems- how our health system is functioning, what are the features of our Indian health system and how it leads to different structure and or the features of our health system, whether it is creating in a question mark to our supply side aspect or it is related to the demand side issues or it is somewhere identifying the challenges of health system responsiveness.

When we address the health system issues in detail, we will discuss their challenges related to health evaluation and their efficiencies. Hence, the health evaluation really matters to guaranteeing you that if you follow the principles of health economics correctly, then given the health system, we can understand and case its level and locate whether it is robust or there are shortcomings. So, we will explain how far these are applicable to deal with the problems in our system.

And our next week, that is, especially in week number 10, we have discussed efficiency in healthcare. Week 8 and 9, we emphasized evaluation principles of health and their healthcare, especially in healthcare we discussed their applications.

This is not just completing unless we are actually emphasizing the data sources- which are the different available data sources around us. Hence, we also have a coverage of all possible data sources relevant for understanding healthcare or health economics in detail. We have tried our best to discuss about the micro sources or the survey-based data sources which are large scale in nature like- the National Sample Survey, India's Human Development Survey, the National Family Health Survey, and the Longitudinal Aging Survey of India. We also tried to mention the consumer pyramid data. All of these are not detailed, of course, as we also have separate modules. However, we will see them in particular in week 11 of our module.

This also addresses the data sources, which are macro in nature, like national health accounts or data from our state-level data sources. We have also tried to give you the disease profile information. Some indications we have given are related to DALY or QALY data sets. I will clarify it all in our respective model, QALY- Quality Adjusted Life Years, DALY- Disability Adjusted Life Years. Last but not least in week 12th, we will present the entire public health structure and policies. What are the latest policies? How are public health institutions functioning? And how efficient they are? And what are the latest figures? And who are responsible for dealing with it? etc., is the interesting aspect.

And, also to introduce you about our team who are supporting this course, including me, Dr. Pratap Mohanty. I am a faculty associated with IIT Roorkee. I have over 16 years of experience, and I am purely dedicating my work to the field of health economics and in addition to that I used to deliver modules on handling large-scale data surveys. You can find from various channels -YouTube and even online platforms. On my contribution, such as- "Handling Large Scale Data" and also in specific to "Exploring Survey Data on Healthcare" and I used to also write in- national daily on health issues like national newspapers and their editorials. I have also been part of the better reported institutions as part of my academic journey and besides that I am also an expert member to train the IAS officers in LBSNAA, Missouri. In addition to that, while I was in Indian Institute of Foreign Trade, I used to train the IRS officers, IFS officers (Indian foreign servant probationers) and even the other officers as well. The most important contribution of our team is to guide you through the different nuances of healthcare challenges, and I will also introduce my team as well. However, one interesting piece I worked on as part of my independent project sponsored by government of India (an addition to our profile) is that- I worked with traditional medicine.

I found how Indian healthcare system is very robust and it has huge scope for rejuvenation. To support this particular 12-week program, we have a dedicated team, including support from NPTEL of IIT Madras. Here we have a bigger team including the professors and non-teaching staffs of IIT Roorkee. We have a very good studio, which has allowed us to shape a few of the latest materials that are very relevant to scholars' learning.

And along with these, the ones at the backside who have been constantly supporting me in making these materials are my teaching assistants. They are indeed our PhD scholars. I am just naming the three names. One is Mr. Akash. So, I am just writing this down because they will be interacting with you at some part of the time and Mr. Priyandu and third one is Mr. Kripa. All are actually working. Akash is working for his PhD thesis on health state dependence. I am just giving you in another half a minute information about it. Priyandu is working on health and environment issues and especially on indoor pollution. And, Kripa is working on health system responsiveness (HSR), here we have discussed about our health system and also emphasizing on efficiency etc. And others are also working directly indirectly to these issues. And they are also geared off with different tools and techniques for further clarifications. I am sure if you can interact with these guys, they will be assetful throughout. And I am sure it will be helpful for your understanding and can bridge the gaps in our approach, which is meant for the online modules.

So, in the beneficiaries section, we also discuss how this course is helpful in general and for the specific or for the students in particular. Health economics has evolved into highly specialized field drawing on related disciplines, including epidemiology, statistics, psychology, operation, research and mathematics in applications or in its applications. It may also be regarded as an essential part of the analytical methods applied to health, usually labelled health service research.

So, less cynically, economic literacy in health services is essential because healthcare providers will be getting the scope for their improvement, especially in the best use of their resources and optimizing their level. Then, the policymakers may delve into the different tools, or they use to delve into the different tools of policies and if the indicators or the specific tools which might help them to evaluate and also find out- whether the attempts which they have taken is actually affordable or accessible to all or not? Then concerning with health insurers, especially to manage risk and ensure cost effective coverage.

We have also discussed various concepts and jargon used in health economics in our next lecture while shaping up the concept. We will give you exactly the snapshot of different lectures we have covered. At this moment, I am not giving you the snapshot. I know that you will follow the next lecture to find out. Since you have already entered into a discourse which is little advanced in nature and hence, I am sure that you will go through it.

So, in healthcare insurance, beneficiaries will learn particularly how to shape up the healthcare insurance market? and guarantee the best coverage and the best accessibility through their coverage. Then last one is on the patient, especially to address the quality of healthcare and subject to the finance.

Related to the specific course and its beneficiaries, we will address the course specific beneficiaries. For example, if you attend it, you will get an FDP certificate. Just enrolling is not going to guarantee you (the certificate). Enrolling with appearing the exam and getting a pass mark will give you an FDP certificate which is guaranteed by our Ministry of Education through the AICTE and it may count as a training certificate. And this course is also very affordable and recognized as the credit based in IITs and NITs. Like 12 week course, we have 12 week course which is equivalent to 4 credit and so on and when we have 8 weeks course it is equivalent to 3 credit programs in IITs etc.

This course also aligns perfectly with the new education policy (NEP) since as per the instructions, the NEP- they are facilitating the online module and it has widely reach and it gives the idea of all the possible resources simultaneously and the NEP facilitates online content in its recommendations. We have tried to design this course a little application based as much as possible and cited real-world examples. And we tried to solve those questions based on the real-life examples as well, so that it can serve the purpose of all those who look to the field-based studies, especially students, health professionals and researchers. But whatever background you come with, whether in economics or healthcare, we have tried our best to expand your vision and understanding of health and healthcare using an economic lens. But still, it gives huge extent of information for the medical professionals as well. Then what is in our next lecture? We have given you almost all the background of our course, so far as introduction of the course is concerned.

In the next lecture, we will cover the concept and the terminologies that are largely used in health economics. Here are the larger readings of the different weeks. You can procure these. I am suggesting that if you procure these or get at least the pdf copy of them in your system, I am sure that you can raise good questions, and it will also help us improve the module next time (if any). So, with this, it is the time. I expect you to learn as much as possible and open the floor for queries. Thank you.