Health Economics

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Week – 01

Lecture 03- Health as an Economic Good

Welcome to the NPTEL MOOC platform. This is the course on health economics, which is rarely discussed on the NPTEL platform. As I have mentioned, we have structured the health economics course into 12 weeks. Each of the contents covers different perspectives of healthcare - finance in healthcare, insurance, behavioral issues, health systems, demand and supply, which are the basic stuff we will be covering. In addition to that, we will discuss the datasets that are largely used in health economics. Then, we will be covering micro aspects as well as macro aspects.

In addition, there are important dimensions and applications of health economics, which are also covered in the later part of our module. I am quite sure that (which we already mentioned in the very introductory lecture) it will help you a lot if you attend till the end of the sessions. In this particular lecture, we have included health as an economic good as part of the introduction module.

We all know that different goods and services are defined differently. And its economics (of these goods and services) are conceptualised differently. But, health as an economic good is not well defined in different literatures except in some particular readings. Therefore, clarifying health as a commodity or health as a service or healthcare as a service-unit is quite interesting to note. So, in this case, we will clarify health as an economic good. So, accordingly, we have defined the couple of points which are covered in this lecture. They are understanding health as an economic good, then we will also address the fundamentals of economics, role of economic agents, then we will also discuss about the healthcare market, the relevant factors those are important for health and healthcare as economic good. Some other points that are connected to these factors, then the fundamentals of economic good or implications of healthcare being an economic good.

In our understanding, we would also clarify the core fundamental aspects of economics. Also, we will emphasise the agents or institutions responsible for defining these economic goods. In addition, we will also discuss the challenges of treating healthcare as

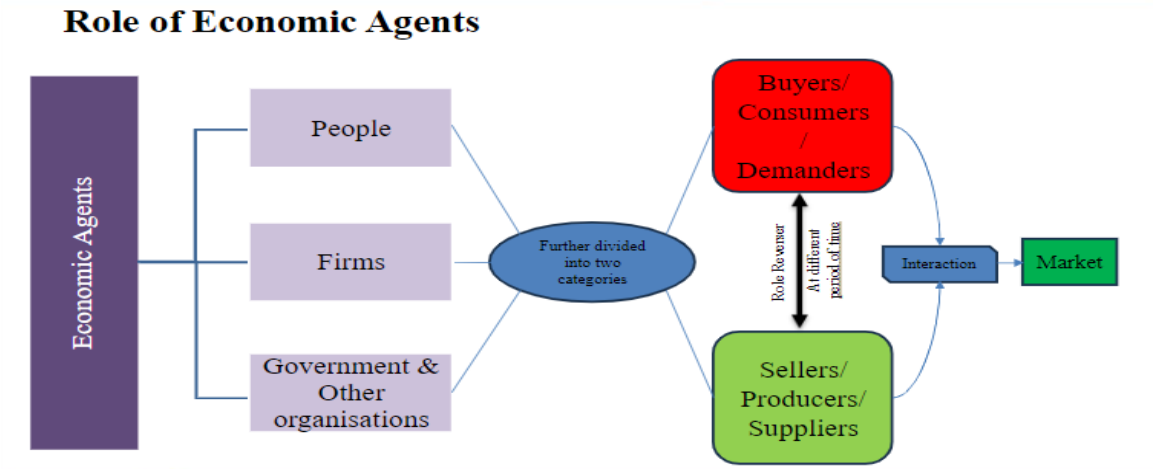
an economic good. Last but not the least, the content is on- deciding who gets what in healthcare. So, let us discuss health as an economic good.

We start with the views of different economists. They treat health and healthcare as any other good and call it an economic good. Economic goods are defined as- "any goods or services that are scarce relative to the society's wants for them". As we all know, any goods and services are considered valuable, if the demand and supply mismatches and basically when the supply of it is scarce, as compared to the demand. Therefore, if the economic agents or the consumers of the commodities and services find the commodities to be scarce, certain valuations are usually made. Maurice, in 2012, discussed economic goods very clearly, and we cited that book at the end of our lecture. You can follow it.

Then, while discussing- what makes healthcare an economic good? To answer this particular question, one requires to have an understanding of the fundamental concepts of economics. We have clearly highlighted different types of economic goods. We also highlighted what the agents are and how they define economic goods differently.

Starting with, economics is a social and science subject. We start with social. When we say it is social, in that case we are dealing with the societal issues, which largely define the resources to be scarce. When we define it as a science, we will obviously attach the decisions with it, and we will obviously attach the behaviour of economic agents and some extent of predictions through the interaction of the different agents with their behavioural frameworks. So, in both social and scientific contexts, we will clarify the resources as against their bounded or unbounded constraints. Whenever we say constraints, we discuss 'bounded availability' or 'availability which is clearly bounded'. So, given the constraints, we need to allocate the resources very carefully. This is what we have clearly emphasised. So, economics is said to come into play whenever and wherever two key features arise within a nation or an economy.

So broadly, we are discussing about resources, that are bounded and the potential uses of those resources which are unbounded. So, the unbounded resource use has to be appropriately allocated and utilised. In short, this is discussed as part of economics of any goods and services, especially in health and healthcare. So far as, understanding health as an economic good is concerned. We are supposed to discuss the important agents who are responsible for defining this as an economic good. Specially, we start with people/ persons, largely they are accounted for the demanders or the demand patterns. Even firms and other government and organisations are also part of forming the demand. We will also discuss all sort of things and how they interact each other as an economic agent to define the value of the product.



Broadly, these three agents (i.e.,- People, firms, & government & other organisations) are discussed in two contexts- buyers or sellers. Buyers are consumers, or they are also called demanders, and the other agents are called sellers, producers, or suppliers. The role of reversal also matters here. The suppliers can also be demanders. As those sellers, they also demand. They are potential demanders for the products as well at different periods. So, it calls for interaction. To what extent does a circular flow occur, from demanders to the sellers or the sellers to the demanders? We usually study these in our foundation course of economics or introductory economics courses, but even if you have not read it, it is perfectly fine. You can easily understand that a seller can also be a potential consumer. A seller is a person selling the product but simultaneously contributing to demand. So, they are also part of the market, and a circular flow occurs, such as when demanders demand the sellers' products and sellers provide or make the products available to the buyers. Therefore, a strong interaction forms the market.

Don't you think this market is purely functional just because of this interaction? Do you think that this is just randomly or eventually occurring? It is actually not. Why am I emphasising this? Because although we have defined different agents, they interact with each other. It is quite obvious that, since the interaction is, to a great extent, about bargaining their contracts or bargaining their share in different contexts, there obviously arises a possibility of conflict. Therefore, the market is a place where it resolves different forms of conflicts. So, we will encounter those conflicts through various agents and their interaction in our successive discussions. To answer these questions, we need to address some of the very fundamental questions like why, where, whom or how these agents interact.

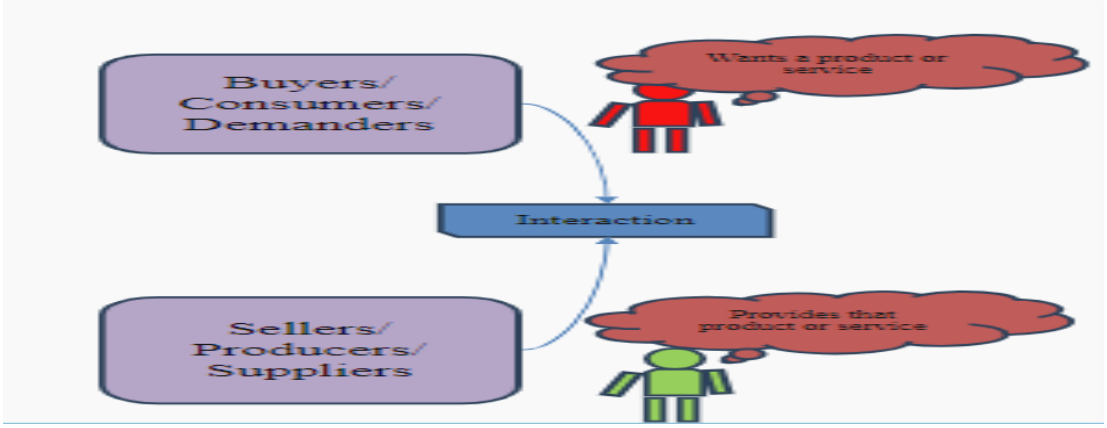
So, starting with why those agents interact, we start with some of the basic assumptions of economics or the agents as part of the market or the function of the market. First, there is an assumption that- they (the economic agents) are considered rational, whether the person or the agent is an individual, firm or organisation. So, what do you mean by

rational? The choice function they exhibit is considered to be rational. It should not be irrationally defined. Like, we simply say my choice function is to demand or consume something while being on the moon or if we simply say some examples like- while man is flying and catches different avenues in the air, that is an entirely irrational assumption.

So, we need to define our choice functions very rationally. Some irrational choices, like on some goods, are not called economic goods. For example, we used the choice function in microeconomics to explain that the consumer has to express correctly. If I say a consumer is expressing clearly (with) commodity basket A over B, the consumer should also be given a choice function to prefer B over A. So, what does this mean? This means that consumers should not be completely restricted in their choice of function.

Rationality, in simple form says that, for example→ I am a kid in a family or a child in a family. My parents have given me a certain amount to spend on the market. But the first assumption, in that case, is that the parents have suggested that I purchase different commodities, not just be biased over one commodity. In that case, what really happens? As a child in a family, I may be biased because I may not be an entirely rational consumer. What else will I do? I will simply arrive in the market and start purchasing only one variety of commodities that I like. So, when I want only one variety, I will buy everything by spending the entire amount. In that case, the assumption is not rational.

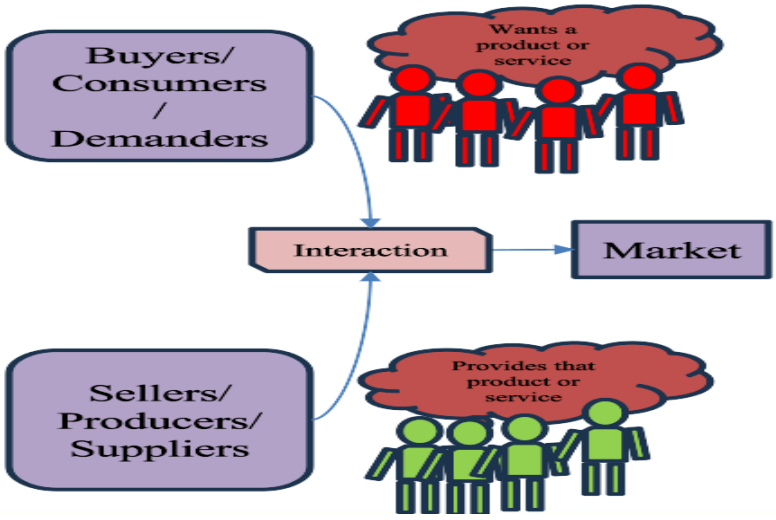
The rationale is that the consumer must distribute and allocate the resources efficiently. So, some examples I have already given, and in a microeconomic context, I have said that the consumer has to allocate rationally the amount that has to be spent. Then another reason behind the agents to interact with each other is through reasoning. We start by saying that economics works on a basic assumption of rationality. In other words, everything happens for a reason, meaning every economic agent's action has a strong sense. So, the reason has to be specified. Let us start with one example in this case to explain the interaction of the agents very clearly. Suppose a consumer wants or the individual wants something, maybe a product, perhaps a service. Let the following figure illustrate it-



We have also highlighted in this picture that a consumer wants something, maybe a product or a service. And we are saying there is someone else who has that product. Or, say, there is some provider that provides the product that the first individual demands.

And how is it possible? This is possible with the help of some exchange. If you remember, it used to be a barter system-based method in the earlier system. In the barter system, the goods were exchanged with other goods. But in the present format, at the international level, the medium of exchange is money or currency. So, currency forms the value of the transaction between two parties. So that way, we can say that the consumer is going to get that product in exchange for another product or through money. So, they will have to interact to satisfy each other's wants.

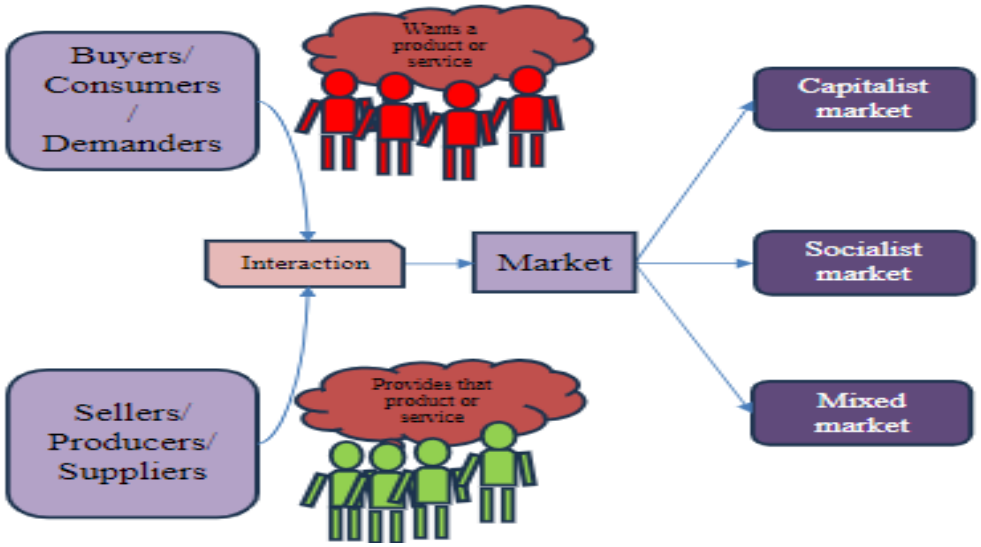
The basis of interaction (we just say) is through certain rational choices and certain reasons- Why do I want this? and who else are there to fulfil my wants? So, in that case, interaction forms the relations between these two parties. So, interaction is emphasised in this diagram. We will also discuss the interaction through certain places and marketplaces and we will emphasise where they will interact. In reality, there are a lot of such individuals or firms who interact in order to meet their demand and supply in their day-to-day spending or day to day behaviour.



The economic name of this place of interaction is called the market. As I mentioned, the market is where these two parties interact as a demander or supplier. That is simply called market. In healthcare also, we need to take the help of the market. In other chapters, we have certain sections that discuss some forms of market regulations. What should be an ideal market? To what extent market is regulated? Here, we will be emphasising public policies in healthcare products.

Now, markets can be further divided into three types. One is called a capitalist market,

which is also called a free form of market. Another form is called the socialist or welfarist market, and the mix of these two is called a mixed market.



Just imagine where these forms of markets are available. If I cite it from now on, I will start with the Indian context and compare it with the context of developing and developed countries. What does the Indian market really want, especially for its healthcare needs, and what do the developed countries need to provide to their consumers or patients regarding healthcare goods or services? In that case, the different types of markets can easily be understood. So, to clarify, in the Indian context, we know that several things are challenging. Especially if you look at the doctor-patient ratio (as per WTO standards), it is still far from reach. We are still not reaching the standard. We will explain this in our other slides. We will also emphasise healthcare quality in that context, such as health and healthcare.

The service quality, etc., is not good in terms of some standards made by our top-most institutions like WHO. And if you also count certain indicators in the recent time, especially after COVID-19, the number of deaths are actually identified due to COVID. We have also observed that healthcare quality was too bad compared to the context of many developing and undeveloped countries. So, given the backdrop in the Indian context, it is quite obvious that if you make the market completely free, where anybody can participate and provide health services to the individual or the patient. Then, I think it might not be successful enough for the individual patient in the Indian context to receive the best treatment because the free market is not going to be idealistic and may not deal with the challenges faced by individuals in the Indian context. So, we strongly require intervention.

Why do I say this? In a market, the simple starting motive behind this is profit. The market functions well when our assumption of this market is that- all the individuals, by

their standards, by their differences, are at par. Or by the assumption that there should be less inequality or inequity. When that is not the case, several calculations are made at levels where inequalities are higher. Especially in healthcare and social products and services. The 10 percent of the people are capturing 90 percent of the income. In that case, it is obvious that 90 percent will suffer if you make it completely market-based. So, Indian products, especially those in the healthcare market, require government intervention. In some of the high-end services, we require market-based intervention. So, this is what India is following. Therefore, the Indian healthcare market is called the mixed market. It is not completely free, not even completely governed by government. So, it is a mixed form of market.

However, if you look at some of the developed countries like the USA, even if you compare them with their very early period, the functioning of their market is completely free. Even in European countries, though the government intervenes in a number of cases, its function is still largely free market-based. The idea of the free market has emerged from the ideas of our economist, Adam Smith, the father of economics, who coined the term laissez-faire economy and suggested fewer government interventions. And even the ideas of earlier economists, JB Says, etc., if you read those theories a bit, you will see that every supplier creates its own demand. Those kinds of conceptualisations are made; hence, their economic evaluations or functions are largely done through a capitalist approach. So, those developed countries' markets are, to a great extent, capitalist-based.

Whereas some other countries, such as China, are considered to have a socialistic structure. But I think you might be confused enough by the Marxist approach to social values or valuations based on the Chinese setup. However, the correct interpretation is the socialist or the welfarist approach, in which the government takes care of everything. It is quite surprising to note that we have a mixed method in India, which requires mostly the government's intervention and the role of government in the social sector. However, even developed countries largely govern the social sector through their government's functioning. So, we will discuss all sort of things in this chapter, like we will identify the difference between capitalist market, socialist market and mixed market.

Largely, I have clarified. But for your understanding, I want to read between the lines that- the capitalist market is defined as "an economic system where private individuals or corporations own and operate most businesses. And market forces determine the prices and resource allocation with minimal government interventions". So, that does not mean there is no intervention. As I already said, there are also some interventions in the capitalist market in social sectors, but the intervention has to be very minimal. And just the reverse is considered to be valid in a socialist structure. The socialistic or welfarist market is "an economic system where the government plays an active role in regulating industries and providing social welfare, reducing income inequalities". And the mixed

method, which India largely follows, is where we have examples of both capitalistic and socialistic structures.

The market and its type, where the economic agents will interact, will further depend upon several factors. Again, it is not just the government versus private; who governs what? It depends on the nature of goods demanded, the availability of resources, suggestions from different economies and experiences from different economies worldwide, and the function of our non-government organisations. Moreover, the choice of economic system often reflects the society's values, priorities and historical context. We have given some examples. As I already mentioned, for the US we say- it's a free or capitalistic market. China and Denmark are considered to be socialist or welfarist markets, whereas India and Canada are considered to be mixed markets. There are many other examples, but defining in a broader context in a particular category is very difficult. We need to analyse, and our current categorisation of countries is based on different literature.

Then, after answering where these agents interact, why they interact. We need to understand how they are actually interacting. In order to have a successful market interaction among economic agents such as individuals, firms, etc., a market should have answers to the following questions- What should be produced? How should it be produced? When I say what should be produced, the question is whether it should be necessary, comfort, or luxury goods. Which goods should be produced more? And again, when the market governs it. The market will try to intensify its functioning and largely focus on products in which it might derive the best profit. Therefore, they may not deal with the necessity-based requirements in the society. So, we need to understand what products should be produced. And how can one understand? One has to refer to different literature.

And how should it be produced? Which mechanism should be adopted? Again, for whom it should be produced? Who are the larger contributors to the market? As we know, in the Indian context, we should propose more for the people shaping the market. Once it is produced, it is also obvious to clarify its distribution. Distribution channels are important, as they will justify the products and society's needs. To answer these fundamental economics questions, the worldwide markets go through rigorous economic analysis, considering those limited resources and unlimited wants. In practice, economic analysis establishes facts as other sciences do- by describing theoretical relationships tested by real-world data.

So, health economics is a domain that is part of the economic discourse. In that case, we have a scientific approach to understanding the existing views through theoretical underpinnings and we can also test it with the real-life data. Then, what is economic analysis? We will clarify all those things. All are discussed in our slides very clearly. You

can read on your own. I may not emphasise much, but I am sure that if you read between the lines, you can easily clarify your doubts. There might be questions from each of the slides. We will have assignments in every week, as I already mentioned. Those assignments will have at least 30 to 40 percent of the contents directly derived from the slides. Therefore, each point covered in the slide should be carefully read.

Economic analysis refers to the systematic examination and evaluation of economic phenomena, often using principles of economics, data, and models, to better understand how individuals, businesses, and societies make decisions about their resources, production, consumption and distribution. So, the four points of economic analysis are the availability of resources and production using those resources, who is consuming them, and how this production is distributed to the agents of the economy. We have already discussed this. These are the parts of the economic analysis where economic evaluations are made. Then, we will discuss the decisions and choices that refer to the agents, especially those that individuals and organisations constantly face, involving allocating limited resources such as time, money, and labour to meet their wants and needs. And regarding production, like how are resources transferred into finished products? How are these products used and distributed?

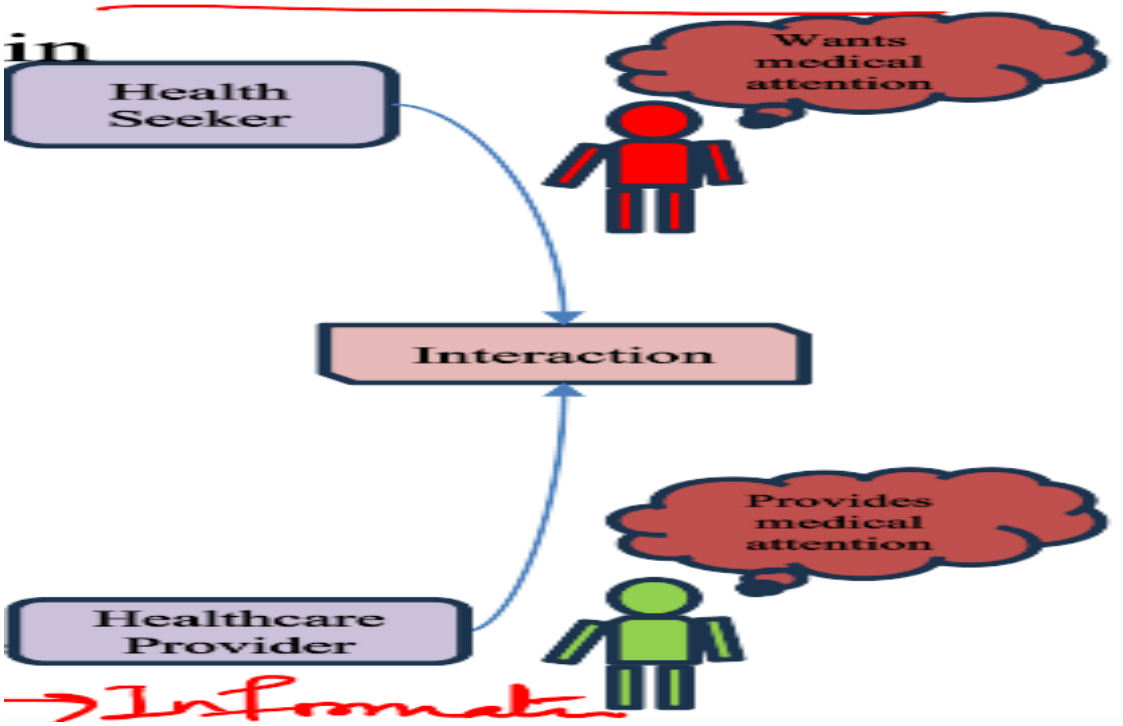
Coming to other important points. What are explaining economic goods? Economic goods (we already explained initially, but once again) are considered valuable. Economic goofds are those goods and services attached to certain value or considered valuable and are limited or scarce relative to society's desires. In other words, there is no unlimited supply of these goods and services to meet society's needs. As a result, people must make choices and decide how to allocate their limited resources to obtain these economic goods.

You might have read in the microeconomics course some of the very important concepts called utility. We read wants, we say choices, we say demand, we say effective demand. Then, there are other demand concepts like compensated demand, derived demand, etc. We will discuss this later, but at least simply an expression of your satisfaction, etc., as part of our society's desires are part of the economic analysis. However, when we define wants, when we say we have certain wants, it means we have certain capabilities to fulfil some of our utility or satisfaction level. So, wants are again a little focused or restricted. When we say choices, yes, it is a particular selection of your wants. When we say demand, demand is also a broader concept. It is related to a function or as a factor of different categories, such as other factors that should be attributed to expanding demand.

But when we have, say- goods demanded or quantity demanded, if these types of words are explained somewhere in different literature or books, you should not be confused much. When we say quantity demanded, we are restricting its relationship to a particular variable. Usually, we refer to it as price. In this case, when we say choices are quite huge,

we need to compare them with the availability of resources. Therefore, we must match those requirements with availability and find the best solution. These are all part of the economic discussion.

I think we have already discussed this issue. In short, to understand the fundamentals of economics, especially in the healthcare market, we need to clarify with certain realistic examples. How are the fundamentals of economic goods in the healthcare market dealt with, and whether or not it is an economic good? Let us take an example in that case to explain it in a micro context. At a micro level, how can I understand this is part of the healthcare market? An individual who is not well is seeking a specific healthcare support, as explained in this picture-



On the other hand, there are some other individuals who provide that specific healthcare at different points (maybe they are the institutions or healthcare providers). And what is the place of interaction here? Obviously, the place of interaction is the institutions, which I have already said. There may be health facility centres. Maybe public healthcare facilities, private healthcare facilities, other facilities, pharmacists or medical shops or even quacks. There is a huge informal healthcare setup in India, and the informal healthcare providers are generally referred to as quacks. We might have heard people say- "Daadi ka Nuskha", which also works very strongly in India. In Indian format, we are emphasising traditional forms of healthcare, which are not documented in the literature but are still valid and solve many purposes. They are also part of healthcare

providers. So broadly, we are discussing public hospitals, private hospitals, quacks and others.

To explain the economics of healthcare, we will be discussing the interaction between health seekers and healthcare providers. We will be discussing their interactions through a place or market; the market may be defined through the institutions called public health hospitals, private hospitals, quacks, etc.

So, who are the economic agents then? We have already discussed that they are the health seekers, health providers, and the healthcare market for interaction, like Mohalla clinic, etc. We can also conceptualise them as part of a socialist or welfare market framework. When we say private facilities, some private facilities, like private hospitals, super facilities, etc., or clinics, are part of the capitalist framework. And then quacks, etc., Sometimes based on profit motive, sometimes non-profit motive. When it is clearly through profit motive, we can say it is a capitalist format. Whenever it is a non-profit motive (like some quacks are solving the need for healthcare in our neighbourhood, they are not for profit motive), they might be termed to be based on a socialist approach. Thus, quacks can be considered a capitalist format or a mixed format as well. Primarily, literature identifies the capitalist format in different contexts. So, we may clarify through reading.

So, do you remember that in the initial discussion, we discussed how three types of markets act as a platform for interaction between economic agents? However, in the last example, only two market types are discussed (Capitalist and Welfarist). The capitalist or free market involves private facilities within which we discussed private hospitals, clinics, pharmacies, etc. Another broader type of healthcare market is called the socialist or welfarist market. Mohalla Clinics is a famous example of this. When we combine these two together, they are called mixed market formats. So far, we discussed the micro perspective of the healthcare market. So, everything we discussed till now was from a micro standpoint as we took the case of a single individual or healthcare provider.

Now, on an aggregate level, many health seekers and providers exist. In fact, there are a large number of health seekers and comparatively very small number of health providers worldwide or globally. Especially if we count down a few examples to understand the macro context, we find that- WHO recommend the standard norm for a better health system to be one doctor per 1000 individuals. So, the WHO recommendation of 1 doctor per 1000 patients as the standard format or the ratio should be fulfilled to make a better health system. However, for India, the reports claim that there are only 0.7 registered doctors per 1000 individuals, according to the latest WHO reference.

So, it is very miserable. We need to catch up to that level to define better healthcare quality. We can discuss the difference very clearly between health and healthcare. Our

next chapter is on this, and the following lecture is on health and healthcare and its differences. As per our Government of India claim, the doctor-to-patient ratio has increased recently. As per the Ministry of Health and Family Welfare (2022) document of the Government of India, there are 834 individuals per doctor. Then, those facts suggest that there is an intense scarcity of suppliers, especially healthcare providers, in the Indian context. These are also problematic issues in African countries and some other developing countries. This means that healthcare follows the definition of the economic good as it has the factors associated with the economic good that we discussed earlier. Therefore, we define healthcare as an economic good.

Now, we will discuss some directions to understand this very carefully. The question may arise whether the scarcity is limited to the doctor-to-patient ratio only? And is the case limited to India alone?
The answer is, of course, that it is not only for the Indian context. It is the context valid across the globe. Therefore, the complete answer is that neither it is limited to the case of doctor to doctor-to-patient ratio nor to the Indian economy alone. It is equally valid to all the resources used to produce health and healthcare services, such as human resources, capital, raw materials, etc. So, we can list out the factors that make healthcare an economic good. To understand health as an economic good completely, we need to structure all the factors that interact with each other to define a holistic approach of health as an economic good. So then, what are the factors?

Factors we can count include resources that are used to produce healthcare services, such as human resources, capital and raw materials. Society can devote more of these resources to the production and consumption of healthcare. But, society's wants for healthcare have no known bounds. There is no known limit to what we consume, and no healthcare system in the world has achieved sufficient spending to meet all of these clients' healthcare needs.

Are there any implications for health being an economic good? When healthcare is treated as an economic good, it is subject to the same economic forces as other goods and services, which is clearly understood. This means that there are choices to be made, such as what quantity and mix of goods to produce and how to produce it, who pays for it, etc., and how it is distributed (we have already discussed).

These choices are complex indeed. We require different permutation combinations and game theoretic formats to conclude dealing with the exact choice function. We need large datasets to handle the choice function and its requirements for society. Therefore, the obvious question to answer is allocating resources efficiently. The best mechanism to allocate resources. It is not just about allocating resources but also about addressing equity and distributing in a better way so that the lower end of society, whoever is in the lower end in society, should get more allocation than the upper end. Certain poverty

alleviation and employment programs are targeted at people who are backwards financially. So, more justice is required in this regard for a better allocation.

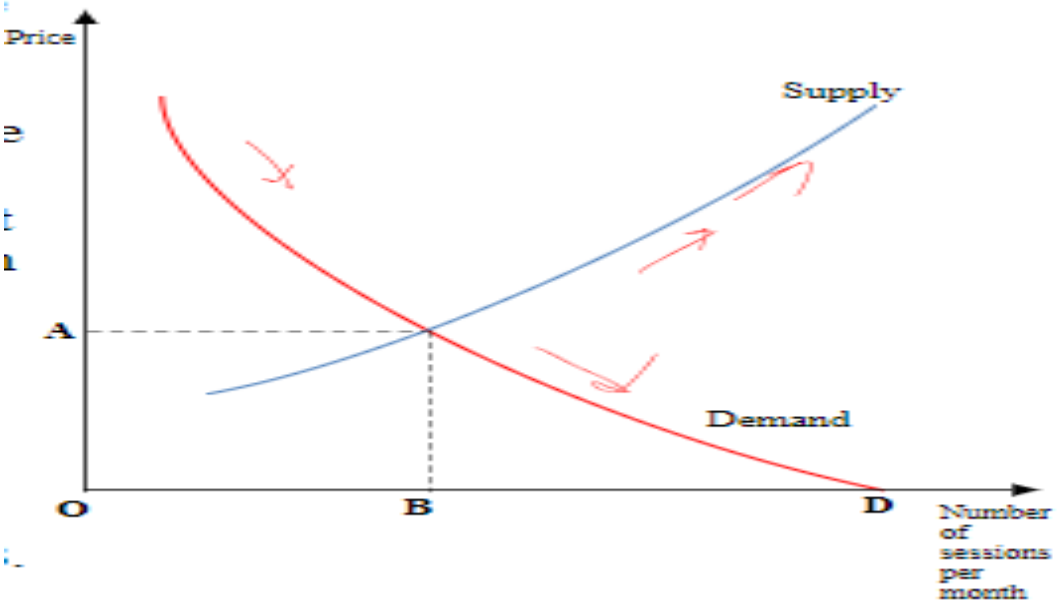
Not just that, we need to use innovation. We want to encourage innovation in healthcare to develop new treatments to improve healthcare. As we have realised at the time of COVID-19, newer methods, newer models, and innovative models were required. Though they are expensive, they may be cost-effective in future.
And who should pay for this is an obvious question. So, the other chapters will guide you very correctly. Is the healthcare market similar to other economic goods markets? Of course, yes. The fundamental answer is yes. However, to state that healthcare is an economic good is not to suggest that it is the same as other economic goods and services in every context. Suppose we accept that health is a fundamental commodity. In that case, we can analyse the demand for improvements in health in very similar ways to the analysis of demand for other goods and services.

However, quality is an important concept here that has to be addressed. There are differences between the economic good and healthcare as a good. Health cannot be traded. An important aspect needs to be mentioned. It is impossible to analyse it in the context of a market since it is not traded. Health cannot be purchased directly. Instead, the focus is on producing healthcare as the key means people express their demand for it. And as we all know, health is not directly demanded. We are demanding healthcare. Healthcare products do not directly satisfy our needs. Therefore, we need healthcare products to deal with our health standards better. Thus, healthcare has a derived demand concept from the demand for health. Of course, such analysis can be used for almost any goods and services, but it is particularly important for health because healthcare consumption is usually not in itself pleasurable. Instead, it is often the opposite and is undertaken to improve health. So, here are a couple of references you may follow. Indeed, I need to emphasise here that a considerable part of past and current research in health economics is concerned with whether or not healthcare is different? So, as mentioned by various authors, you can have a read. I think it will be helpful for you. Deciding who gets what in healthcare, I believe we have, to a great extent, explained everything, like what we produce and how we produce (the obvious questions to be clarified).

Possible ways of deciding who gets what in healthcare: Please read from the slides. I think I should keep these aspects with you for your understanding, and they are pretty easy for you. Everything is clearly stated. Can the solution work in the healthcare market for better allocation, etc.? In some cases, it is relevant. For example, in the Indian context, we need to cite (as of 2020) that the private sector plays an important role in most areas of the Indian health sector. It holds a huge market share. It is to be mentioned that out-of-pocket expenditure is very high; two-thirds of the spending is out of pocket (OOP). Even the private sector holds 70 percent of the market share. Medical beds are 63

percent, the share of inpatients is 60 percent, the share of outpatients is 78 percent, and the share of doctors is 80 percent. In the references, we have given all those links. You can read and understand more about this. Having such a big share means holding many health issues.

Let us take one such demand of healthcare issue to understand how the invisible hand wave works, as mentioned in our classical approach. So, whether the invisible approach works in the Indian context or not, those readings will help you. So, let a healthcare market be for hyper-depression, especially when we are going for some economic modelling and to derive specific solutions. The healthcare demand example we cite here is for hyper-depression in India and many other countries; mental health treatments like hyper-depression treatments are bought and sold in private markets. We have designed the following economic model based on our definition of healthcare markets for the invisible hand.



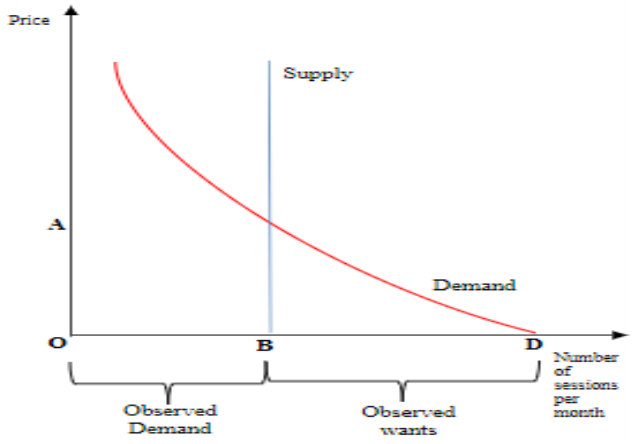
So, we usually go for the demand and supply framework to understand. So, how to understand? The red line explains the demand curve for healthcare in hyper-depression. The line slopes downward from left to right, indicating that the price of treating hyper-depression falls as the demand increases.
The reverse is true for supply (blue line). As the price increases, the supply for those dealing with it or treating depression rises; therefore, it flips upward. So, I have highlighted. Thus, there is a possibility of equilibrium, and the market forces will interact and decide an equilibrium price, which will be justified to the agents who are demanding and supplying both these products for those different agents. So, O to B is supposed to be the observed demand, whereas there are several unobserved demands that are demanded but not met (B to D). So, we can readily observe the effective demand of quantity B at

price A, also called observed demand. There is other potential demand for this product, but the market is not dealing (B to D) with different aspects of supply and demand. So, the price is settled at A only. If treatment were free (means price is set at 0), the demand would have been much higher (i.e.,- at point D), covering (D to B) the unobserved demand.

However, complete reliance on unfettered market forces is rare in most countries, including India, and for most healthcare services and products. Typically, governments must intervene in the healthcare market to a far greater degree than most other economic goods in various ways. Especially what I wanted to mention here is that healthcare needs more attention, and the government must intervene.

I have already clarified in my previous discussion that this sector requires regulation and subsidisation. The Indian government has also started several packages and schemes. Indian government subsidises healthcare either via a partially or fully funded approach through various schemes such as the "Ayushman Bharat digital mission", under which the national health authority issues an Ayushman card, which bears up to 5 lakhs of treatment cost and taxes. In some cases, they directly provide health at public hospitals. For example, TB (tuberculosis) are fully subsidised so that nothing is charged at the point of consumption, and the government even provides the minimum possible points for healthcare. We know that health is on a centre-state sharing model in the Indian context. In some cases, the centre bears 60 percent. In other instances, the centre bears 40 percent of the total expenditure. That is why our healthcare is on the concurrent list.

I have already clarified in another context where the government provides or cares for everything and specific products.



The supply curve, in such a case, is considered to be rigid and to be fixed. And the demand may be following the normal design or the normal way in, which we have

already explained. In this case, treating healthcare services as measurable in some comparable units in the horizontal axis, the demand curve is the same as I mentioned in the previous diagram. As the price is 0 (we start with 0) due to government intervention, the demand will be at point D, which I have already mentioned. The supply curve is kept vertical here because the government takes care of the entire amount and allocates a fixed budget. And when a particular or fixed budget is allocated, we will start with a specific point B. In this diagram, we have said B. So, irrespective of the demand, the fixed amount of supply is allocated. In the above diagram, the supply curve is perfectly inelastic. So, supply is assumed to be fixed at B.

We find that demand exceeds supply by D to B without a price system to reconcile supply and demand. It is D to B since demand is there, but since the fixed amount of supply is allocated, there will be a over-rush and the health system will be overburdened, and who obtains health services is determined by factors other than price. For example, the waiting time list in public hospitals is very huge. Some other examples like income group, caste, and occupational differences becomes the deciding factor to access healthcare in the Indian context. One example of such type is the Ayushman health insurance card, which provides quite a fixed amount. The government intervention-based model differs from the market-based model as the D to B range is observable in the government-based model. However, healthcare demand remains unmet and should be dealt with carefully with higher budget allocation.

So, we saw two extreme examples. One is complete reliance on the private market, whereas other one is by public provisioning of the healthcare facilities. So, in each case, not everyone who wants healthcare gets it. Healthcare is rationed in both cases either by price or by other mechanism. So, healthcare in a private structure is rationed and in another case is also health is compromised due to other factors which we have cited. In practice however, most healthcare systems are a complex mix of private and public sector activities.

Still, some questions might arise, like- why are the government so often involved in healthcare? What is it that makes healthcare special? These questions will be answered with time in upcoming lectures. So far, we have discussed the type of healthcare, health economics and its economic foundations, which are basically the fundamentals of health economics. Here, we defined health as an economic good, discussing different market types for healthcare, especially discussing who the agents are and where the marketplace is, how these are dealt with, etc.

In the next class, we will be discussing about differentiating health economics and healthcare economics. We will also be emphasising point-wise differences and what is interesting and important for someone learning from health economics.

Health economics is not shorthand for healthcare economics. And we will be clarifying this anyway. I have read between the lines to emphasise some of our content. In the reference section, for you, I think the bold one needs to be looked at. You have to thoroughly read in order to answer our assignment question or even the final exam questions. Other readings are equally important.
Our next lecture is on distinguishing between economic health and healthcare. With this, I think it is time to stop. Thank you.