Health Economics

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Lecture 33- Tax and Social Health Insurance Mechanism II

Welcome, friends, once again to our NPTEL MOOC module on health economics, we are presently covering the economics of the health system. This lecture is a continuation of the previous lecture. As I already mentioned, we have been discussing the health system and, especially, from the perspective of revenue and how funds are generated for a better health system. We have mentioned that tax and social health insurance are considered to be the better practices across the globe. In our previous lecture, we emphasized social health insurance and the incidence or the burden of who is sharing the burden of social health insurance.

The assessment of all these things is made through the five important criteria. We discussed acceptability and transparency in the previous lecture. Also, we discussed stability, the stability of the sources of insurance, especially health insurance. We explained the demand and supply framework.

We explained this through the marginal value of labor and supply of labor. This is the case where we said that the implications for the employee or the employer are different, and the worker or the employer is different; it depends on the elasticity of demand and supply. In the usual case, I mentioned that the elasticity of the supply curve really matters, and then the shift of the supply curve for labor is rarely the case unless there is a robust health system. Especially in the previous lecture, we concluded with this direction where we mentioned that when the health system itself improved from point A to point B or from one period to another period, the labor supply will be shifted towards the right, and hence the contribution of the worker also increases, whereas the contribution of the employer decreases. And this is what is explained in this diagram once again.

We not only explained the change in the supply curve due to a better health system, but we also discussed the change in the marginal productivity of labor or the change in the demand for labor due to the cost of insurance. And our focus here is to understand whether the health system is stable due to this kind of change. Yes, it is considered to be stable at another equilibrium point; we will reach another equilibrium point for sure. However, a

new equilibrium point will be attained between them, and there will be some distortions. Yes, this distortion differentiates the impact on the different parties.

The load, you can easily see, is different for the worker and different for the employer. The implication is also visible in terms of employment. So, this is what we already discussed in the previous lecture.

We are discussing the third criterion of measuring or understanding the insurance schemes to define a better health system. The third one is called cost control. So, social health systems have faster expenditure growth than tax-funded systems. We are also trying to compare which one is better from which perspective. Social health insurance systems have faster expenditure growth than tax-funded systems. In recent years, the mix of financing mechanisms within each system has become increasingly complex. A contract or third-party payer model contains more pressures for higher costs than an integrated one, both to provide more care per patient and to allow the prices of health sector resources to increase.

Social insurance organizations also have some role in suggesting increases in premium rates. And in the absence of competition for customers, they have little incentive to keep rates low. There are also reasons why contract models might reduce costs. A shift from providing budgets to hospitals to funding them on the basis of workload might be expected to introduce more information on cost and efficiency, and this could reduce costs as well. And so, in new public management, especially for healthcare reforms, the provision of services is separated from funding and commissioning.

It is really difficult to conclude whether or not the higher level of resources allocated to the health sector as a whole in the social insurance system is more or less allocatively efficient than the lower level associated with tax-based funding. So, it is really difficult indeed to conclude. Higher prices encourage more resources to be applied to the health sector, and this does have efficiency implications that are context-specific. For example, in these two specific cases where doctors are highly paid relative to other professions, more young people may be expected to train as doctors. Then, an oversupply of doctors could develop since they are highly paid.

Doctors may carry out activities undertaken by nurses in some countries, suggesting a sub-optimal skill mix in the sector. So, we are also discussing all those possibilities to address how the cost can be controlled. Another criterion for measuring or assessing these schemes is administrative cost. Which model, whether the tax-based or the social insurance cost-based model, involves more controls on administrative costs? The collection of healthcare resources through the general tax system controls administrative costs by using an existing revenue generation mechanism.

The social health insurance mechanism or administrative costs are influenced by the number of social health insurance funds that are established. There are two papers we are

citing at this moment by Thomas et al. 2006 and another work of them in 2010. They discuss multiple social insurance funds that have led to additional administrative costs, of course, and it also has a system of risk equalization, and it is also required to equalize and compensate funds that attract more expensive members as well. In another paper, they discuss single-buyer arrangements. In that case, they said single buyer arrangements have operated even in the context of multiple social insurance funds.

The most important example cited for this case is German. So, another way to address this administrative cost issue is through monopsony. The monopsony buying status of the public body responsible for pooling and allocating tax resources is also in the work of Thomas 2010. This allows a higher level of control over what is provided and at what cost if the monopsony power is attached to the public body. So, this equalization system requires complex arrangements to avoid exploitations of loopholes in the system to appropriately share risk across the insurance funds, which can be expensive.

So, to have a better system, user incentives are a must. User's incentives without that the efficiency is lost somewhere. The way people pay for their medical treatment impacts their desire for medical care or their incentive to use medical services. Resources collected from individuals via tax or social health insurance mechanisms involve prepayments that are made by individuals, such as tax laws, contribution rates, etc. And they are not linked to the use of healthcare.

See, prepayment is already there, but the relation is made after a certain time. So, it does not really guarantee a strong incentive for better quality care. By removing the link between payment for healthcare and the use of healthcare, these two financing mechanisms have less influence on payment healthcare utilization decisions than if the patient is required to pay for healthcare at the point of use. So, basically, we are trying to say the point of use is more guaranteed quality than that of the prepayment. Then check with prepayment and point of payment.

In fact, there is a risk of moral hazard whereby people may change their behavior when not faced with paying at the point of use. So basically, the moral hazard problem tells us that there might be over utilization of healthcare services when it is considered with prepayment. When somebody is paying the fees, there are different reflections of behavior. So, accordingly, different models are designed. We are discussing equity.

Equity is also part of the assessment. And this arises from the division between what people pay for healthcare and what they receive. That payment may be through taxes and health insurance. And that is again dependent on the ability to pay and, according to the need, whether the delivery is according to the need. There is cross-subsidization from richer people to poorer people as well, from healthier people to sick people, and accordingly, equity is at risk.

With a progressive payment system, not only do richer people pay more than poorer people, but they also pay a higher proportion of their income relative to lower-income people. Their equity payment has focused on adherence to the principle that payments align with the ability to pay. A progressive payment not only means richer people pay more than others, but they also pay a higher proportion of income to the other category. The mix of taxes and the structure of taxes determine how progressive and the total tax contributions are. So, accordingly, we can understand whether the high-income category or the low-income category is contributing better.

Cross-country analysis shows that social health insurance systems are less progressive and, in practice, than tax-based systems. So, across countries, Wagstaff et al. derived that this is a less social health insurance scheme the system is less progressive than the tax-based system. Another criterion is called rationing of services. The services that are rationed are through different categories. Regardless of how funds for healthcare are raised, certain rationing is made as per the priority of access to guarantee the dealing and guaranteeing of the service.

So, that is either through public taxes or social insurance. So, there are certain indicators of rationing, especially setting the pattern of supply, gatekeeping, waiting lists, and queues. I will discuss one by one. The price mechanism is considered to be a poor allocator of resources in the health sector because maybe the other end of the section may be the burden. In most nations, rationing is done through waiting lists, lineups, gatekeeping, service planning, user charges, etc.

Additionally, they interfere in the market to help people experiencing poverty, and hence, there will be issues of equity as well. So, setting the pattern of supply and the supply pattern determines the access cost and the supply pattern level at which other rationing mechanisms are applied is very important to discuss. Setting the supply pattern requires more difficult decisions in most healthcare systems, and resources are insufficient to meet the vast range of valid requests that they must address. Under the tax-based healthcare system of especially developing nations, millions of women cannot access routine and indisputably high-priority health services such as the ability to perform complex birth by cesarean section, etc. In developing nations, all users of resources have extremely high opportunity costs.

It is not easy to allocate resources where they could be found to stop and equip operating theatres in remote and sparsely populated regions. Hence, such issues show poor decision-making in terms of maintaining optimal financing levels and setting supply patterns. The pattern of social or tax finance health insurance should aim to regulate demands for health resources according to their marginal social value. Another category that is part of this rationing is gatekeeping. In that case, the referral system is mostly referred.

Most tax finance systems, which we already discussed, attempt to use gatekeeping, that is, through a referral system to ration services to those with the highest priority demands. In the UK, in particular, the whole population should be registered on the list of general practitioners, that is, GPs. In all cases other than emergencies, as the first point of contact with the health system, whenever a case falls outside the GP or requires specialist facilities, the GP refers the patient to an appropriate provider. This process ensures that specialist and referral services are rationed to meet appropriate demands and needs. We have mentioned two findings from two different authors.

The problem is that one author derived the clinical, economic, and ethical implications of gatekeeping, and the mechanism has worked imperfectly and is not perfectly functioning. The varying rates of referral and a large number of patients, as identified in Wilkin's 1989 paper, directly attained accident and emergency departments for minor complaints that could be dealt with by the GP. The price mechanism was used. Had it been with the price mechanism, the patient's own assessment of the need for specialist services weighed against a higher price, paying a generalist for advice and then paying services recommended. In that case, this involves a dual burden as well.

So, not just for assessment that needs specialist services, but also the services they are further paying and first of all generalist advice as well as paying for the services both way they require price to be paid. Hence, it is attached to a dual burden. Most patients made choices between specialists based on lay advice rather than professional advice. There are authors who have worked on and identified the problems, especially in the US case we have mentioned. And even in another paper, it identified the issue in the context of Russian penetration.

The waiting list is another way of rationing mechanism. Administered queues are important for patients to refer to departments where unavailable services are listed and allocated resources, and they become available in order of registration on the list. This does not prioritize higher-value demands. The highest value should be placed on the demand of the potential patient who has waited for more time. So, it is not differentiated by the price, which I have already said.

The waiting list adopts prioritizing mechanisms, such as emergency or privatization, and sometimes also numerical scaling or priorities proposed, as discussed in this paper. Please note that all cases receiving the same weight on the list have the same priority and that weighting is a fair means of rationing among cases of equal social value. Even though there are some other observations, such as in terms of elasticity of demand, some estimates found that the waiting time elasticity of demand was minus 0.5 for English cataract patients in 2000. Another example is the waiting list and the demand and supply side approaches based in the UK, which you can follow on your own.

Long waiting lists are evidence of poor resource allocation to the health sector and rationing within it. So, it also involves opportunity cost because of long waiting, especially in the paper 2013 reviewed waiting list policies across 13 OECD countries. The most implemented policies specify maximum waiting time guarantees. That is one of the solutions also for a better health system. The conditions for long waiting lists are of low scientific interest, and that may also distort the health system.

The consultants also use waiting lists as a signal for their reputations with patients and general practitioners, creating the incentive to maintain them unnecessarily. There is inevitable inefficiency in using a waiting list, especially in the case of chronic disease. By making elderly people wait for treatment, it may be reducing the overall benefits associated with the given operation of treatment. So, the waiting list and another one is called queues.

So, more the queues are there. So, expectations are higher for waiting. The next rationing mechanism is due to queues in which patients physically wait to receive services. This is, in fact, called queues, which means they are physically waiting. Queues are rationed based on the patient's willingness to allocate time.

It is dependent on the patient's willingness. There is a strong relationship between such willingness and the social value of the services. One note here we have given is that it is sometimes argued that higher social value should be placed on the receipt of services by breadwinners, as I already mentioned with the case of willingness, in the case of queues. Mothers, whom the rest of the family relies on, such people are likely to place a higher value on time and be least able to spend long hours queuing. Physically, waiting is considered to be a cost for them.

Triage is another one. In the system of Triage, the nurse or doctor quickly assesses the emergency situation and prioritizes the situation for a better health system, and accordingly, the queues can be reduced. Inefficient and inappropriate rationing mechanisms are often a means of maximizing the efficiency with which health professional time is used rather than to ration services. Extreme emergency waiting cannot be a rationing mechanism. Supply constraints are absolute. Gatekeeping assumes critical importance when there is an extreme emergency.

So, please go through these examples, especially in the emergency case, organ transplant, etc., we have discussed. We will understand the difference between the rationing mechanism and the social health insurance scheme. Social health insurance tends to make greater use of co-payments than do tax-funded systems, thereby relatively emphasizing private rather than social demand. Especially in Germany's case, out-of-pocket payments grow significantly between 1995 and 2011 and as a share of their total expenditure.

Co-payments within the social health system are not the major type of out-of-pocket payments. They are only about one-seventh of the total out-of-pocket spending. Co-payments have also been increasing in German health reform since 1990. This increases the role of price-based rationing when we have issues with co-payments. The effects of that are mitigated by the exemption of those under 18 years of age and for more services, pregnant women, etc., the poor, and people with substantial health needs. There are some other examples we have cited for the French social health insurance scheme, with 90 percent of the population covered under the VHI scheme, and that protects them from these payments, reducing the extent of price-based rationing in this VHI scheme. So, another we have also mentioned in terms of equity implications and information-related inefficiencies. Please have a read. We also cited the 2015 paper by Chevreul, which discusses additional co-payment issues. Please have a look, and I am sure you will understand.

So, I am going to summarize all these things and clarify what we discussed. We tried to discuss and assess the social tax and social insurance mechanisms for a robust health system. We emphasize all those indicators. We tried to derive the differences. Many differences are, in fact, due to how the mechanisms have been implemented in different health systems, and some objectives may be easier to achieve with one mechanism over another.

Transparency in social health insurance cost control is easier with the tax mechanism. Tax mechanisms are concerned with the lack of instruments to push funding towards appropriate levels, weaknesses in the applications of rationing mechanisms, and difficulties in managing incentives that promote performance improvement, especially where public sector capacity is weak. So, these are all we discussed, and you can, in short, see how the health system can be improved, whether it is through the price mechanism method, rationing method, or other approaches rationing method we discussed so that private out-of-pocket expenditure could lower. We also compared these two models, and there are many strengths and weaknesses we identified in both models, such as tax and social health insurance mechanisms in terms of their acceptability, transparency, stability, and cost control. Resources are rationed to the highest priority and with social welfare maximizing target through some of the rationing approaches through gatekeeping, setting supply of services, waiting list queues, and others.

In order to read, since this is theoretically discussed largely all the points, I think reading is a must. Two readings we have cited will be useful. These are the latest two readings we have followed. In the next lecture, we will be discussing private financing mechanisms and also assessing out-of-pocket payment mechanisms and, VHI schemes, etc.

With this, I should stop here. Looking forward to your participation. Thank you.