Economics of Health and Healthcare

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Lecture – 35
Underwriting

Well, we are finishing the reinsurance discussion here and now we will discuss on underwriting, so the underwriting is basically the; you know, the main factor which the main factor which works as the brainchild of the success of an insurance company.

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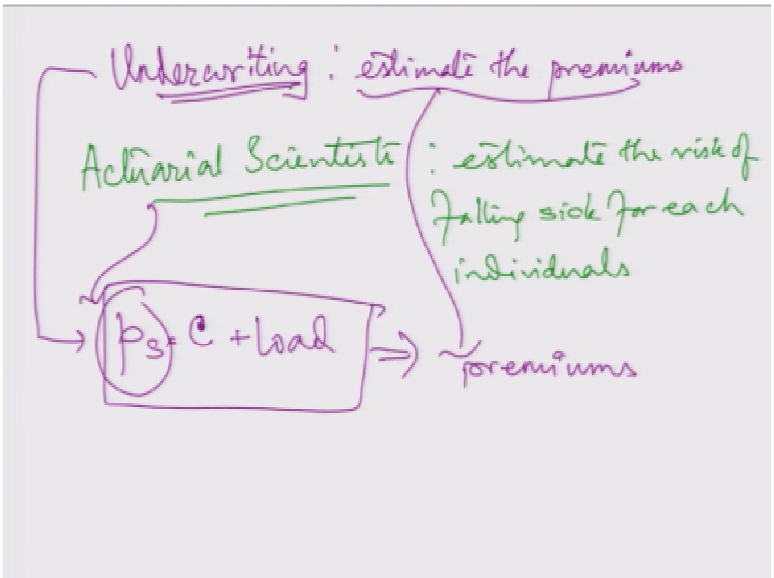

So, this is known as underwriting you know, in underwriting, we estimate the underwriters are basically they estimate the premiums you know, they are the ones who estimate the premiums and then they have a clear idea about how the insurance company has been doing, what is the target, what kind of profiles they do have everything; everything, they know everything about that particular insurance company's business.

And but what they want to know is that what is the risk of different individuals from of falling sick, so that information they get from the actually, actuarial scientists you know, so what they do these actuarial scientists, they estimate the risk of falling sick for each individuals and based on this information, the probability you know, the underwriters basically, you know estimate the premium.

Because they can estimate the premium based on the Ps * c; the cost of treatment because this Ps component comes from the actuarial scientists and Ps they estimate this premium and then they know the load of this insurance company and based on these, they can estimate the premiums here. For each and every customer, if it is a group then for the group, if it is an individual customer, then for individual customers separately.

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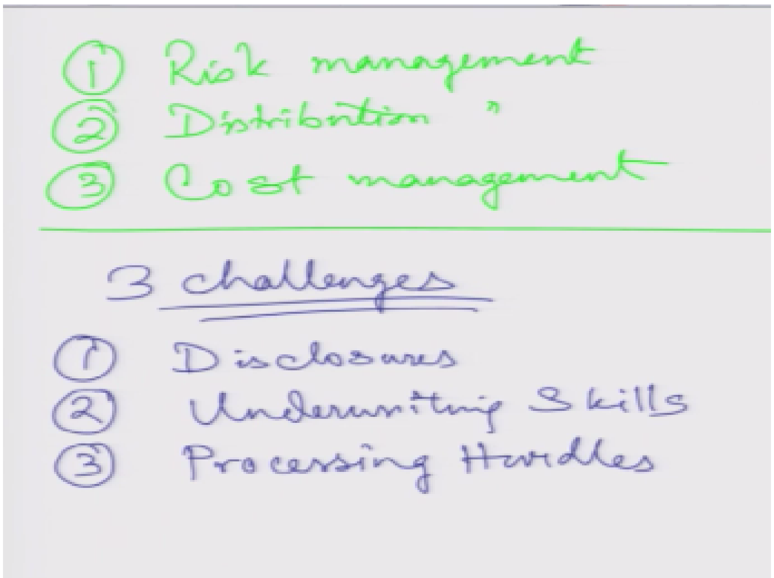

So, what does this you know, the underwriters do; their rules are 1; risk management, number 2; distribution management and number 3; cost management, so the risk management is once the risks are being stated by the actuarial scientist, they now distribute the risks across different kind of groups of population or different population within their customer base, if they have not done only cherry picking, so they have the healthy patients as well as unhealthy patients.

They do this distribution management because they have to adjust the premium accordingly and based on the cost of each of the risks, individual risks or the group risk or the if there is a community; community rating, then based on the community and then the you know as it is a risk pooling, so that risk should be distributed accordingly, so that the those who are is sick already or who has higher probability to fall sick, they do not have to pay enormously high.

Similarly, those who are young, healthy or coming out of group insurance, they are not paying enormously low and then the cost management because here, they are also doing accounting a premium not the actuarially fair premium, a premium which takes care of the load as well the administrative cost, so the administrative cost component also they need to think about and then together they estimate the premium.

The top 3 challenges this; this people face you know the underwriter; underwriters, the top 3 challenges are 1; disclosures, 2; underwriting skills and 3; processing hurdles, always it is not possible to do experience rating, so what happens when this curve, the insurance companies rely on the disclosure by the patients, so a patient can lie that I do not smoke, I have never fallen sick and then I do physical activities, they can lie.

You know a person who is truthful that I have never smoked, I do physical activity, I am 35 years old and you know premium is set for them and the same person, his friend says that I am also 35 years old yeah, I also do running and jogging and I have not never smoked and then the premium is equal for these 2 persons whereas, the second person carry a higher larger risk of falling sick.

And then this disclosure which is actually leading to loss making you know, potentially loss, potential loss for this health insurance company, so this is an adverse selection you know and this happens because of the adverse selection because in order to get more and more customers, they just did not find out that whether there it is a truth or lie and then they made a mistake and that is why they failed to do a risk classification.

Because now both the persons A and B are similar, so there is no dis classification and then the risk assessment or the rating has been done accordingly, you know exactly the same, probability s for sickness for A, P is for B are all together same and you are estimating a risk and secondly, if there is a moral hazard, what happens in case of moral hazard that they go for this treatment, even if it is not required.

So and but however, the moral hazard can be controlled in terms of when the insurance companies identify that there is a possible moral hazard, what they do; they can you know cancel their insurance, they do not renew them, number 1; they can increase the co-payment, the percentage of co-payment, when the reinsurance, now okay you have done a moral hazard, so you have to make a larger amount of payment.

We are not going to be to pay for you 80%, now we will only pay 60% or 70% and then, we can do a; they can do a fee negotiation that your premiums will be higher and also they can do the exclusions or limits that is the amount of benefits that person will get, so if they have lied on something, so on those physical you know habits or the bad habits whatever the morbidities are associated with they will not the insurance company are not going to pay for those morbidities.

So and then the underwriting skills are often you know, making mistakes in terms of this load estimation, making mistakes in terms of this you know in terms, making mistakes in terms of the probability estimation, which comes from the, which comes from the actuarial scientists and then, the failing to do a proper distribution management and all these underwriting skills actually leads to the loss; losses to the insurance companies.

And then, the processing hurdles are often you know there are delays in processes in claims in pre-authorization and in terms of that they have a misappropriation in doing this underwriting estimations or this premium calculation and finally, you know while doing the renewal and this this causes a dissatisfaction to the customer because of this you know, if the customer has gained up or has availed an insurance last year.

And then, they want to continue with the insurance and because of these you know underwriting challenges or limitations and also the processing hurdles, it causes the satisfaction to the customer however, the benefits are of course, that it increases the efficiency of the insurance company to appropriately estimate the risk, to appropriately measure the premium and hence to you know to manage the losses or the net amount of at risk finally.

So and also with the inclusion of technology more and more technology, it has been faster and in the distribution is or the networking is easier with this tele-calling facility you know, online services through third party administrators, so there is lesser of information asymmetry, so all you know, first comes the actuarial scientists, where they estimate the premiums and then comes the underwriters.

Because actuarial scientists first they estimate looking at this background profile of the; of the customer, they will estimate a probability and then based on that probability understanding the operational cost, understanding the cost of the treatment and you know the company's financial condition, the company's market share everything which only the underwriters know the actuarial scientist probably do not know.

Then these underwriters based on this probability estimated by those mathematicians or statisticians who are their actuarial scientists and then they will estimate the entire premium, thank you.